



Programme Area: Smart Systems and Heat

Project: Planning Permission

Title: Planning Policy & Consenting Strategy: Review and Recommendations

Abstract:

Achieving relevant planning permission is key to both the short and long-term success of Smart Systems and Heat. Volume Two reviews the current policy, pinpointing relevant mechanisms for achieving the necessary transition to future-proof local energy solutions. The report provides the reader with an understanding of existing planning policy and planning requirements as associated with a future SSH market. In addition the work provides a plan and budget to achieve planning consent.

Context:

The project will bring an understanding of existing planning policy and planning requirements, policy gaps as associated with a future Smart Systems and Heat (SSH) market, more certainty on future timelines/budget, key risks/benefits, define a Town Planning strategy for Phase 2 and establish key Planning Officer relationships. In addition the work will provide a plan and budget to achieve planning consent and also start the process for achieving planning consents for chosen locations.

Disclaimer:

The Energy Technologies Institute is making this document available to use under the Energy Technologies Institute Open Licence for Materials. Please refer to the Energy Technologies Institute website for the terms and conditions of this licence. The Information is licensed 'as is' and the Energy Technologies Institute excludes all representations, warranties, obligations and liabilities in relation to the Information to the maximum extent permitted by law. The Energy Technologies Institute is not liable for any errors or omissions in the Information and shall not be liable for any loss, injury or damage of any kind caused by its use. This exclusion of liability includes, but is not limited to, any direct, indirect, special, incidental, consequential, punitive, or exemplary damages in each case such as loss of revenue, data, anticipated profits, and lost business. The Energy Technologies Institute does not guarantee the continued supply of the Information. Notwithstanding any statement to the contrary contained on the face of this document, the Energy Technologies Institute confirms that the authors of the document have consented to its publication by the Energy Technologies Institute.



Smart Systems and Heat Programme

Planning Policy & Consenting Strategy: Review and Recommendations

Volume 2

August 2014



Executive Summary

Jones Lang LaSalle (JLL) has been instructed by the Energy Technologies Institute (ETI) to provide planning and development advice with regard to aspects of the ETI Smart Systems and Heat Programme (the “SSH Programme”). JLL has principally advised on two key aspects of the SSH Programme, namely:-

- Advice on the Local Authority (LA) engagement process which is being undertaken by the ETI in order to facilitate the pilot roll out of the EnergyPath™ software tool; and
- Advice on the potential and most appropriate consenting procedures and strategy for the deployment of smart systems and heat infrastructure.

The SSH Programme aims to create future-proof and economic heating solutions for the UK. This means solutions that work in the present and immediate future with the ability to adapt to circumstances in the longer term. It means technical solutions that can be deployed and work in a market environment to the benefit of industry. It also means solutions tailored for specific locations, designed within a national context.

From our review of UK energy and heat policy it is clear that various policy documents recognise the pivotal role that Local Authorities throughout the UK have in enabling the development, deployment and expansion of heat and low carbon decentralised energy networks. It is also evident that the position in terms of national planning policy and guidance is further developed and more detailed in England and Scotland compared to Wales. The overall conclusion reached on the national planning policy position, is that whilst it referenced in documents such as the National Planning Policy Framework (NPPF) and the more recent Planning Practice Guide (PPG) in England, and in Scottish Planning Policy (SPP), it could be strengthened to accelerate and enable wider deployment of type of development infrastructure that could come forward under the SSH Programme, across the UK.

This Report also contains recommendations in relation to consenting procedures. We summarise the consenting regime in the UK, with reference to the planning system and current policies, and consider three potential mechanisms for delivering consent for the likely development proposals, having regard to a number of case studies; this includes consideration of the General Permitted Development Order (GPDO), Local Development Orders (LDO) and the use of planning applications. The strengths and weaknesses of each consenting option have been considered along with indicative timeframes which are set out in Section 4.8.

The overall recommendations arising in the report are set out to support the consenting and deployment of a Phase 2 demonstrator project and encourage the roll out and use of by LAs of EnergyPath™. These include:

Recommendation 1: In considering the consenting procedure to be followed, it is essential that the type of equipment / infrastructure, as well as a description of the nature of development (the range of its physical parameters) that will potentially be used is established (i.e. some form of standardisation): this will be essential to ensure the effectiveness of securing permitted development rights for development by means of the GPDO or by way of application of an LDO.

Recommendation 2: Where individual energy systems do not benefit from the provisions of the current GPDO provisions in England, Wales and Scotland, changes should be sought which would further allow minor works associated with the implementation of decentralised energy and heat systems. It is recommended that the approach to potential changes be discussed with central Government as a first stage, and in turn with the Devolved Administrations.

Recommendation 3: Where changes to the GPDO are not possible, or the scope of the permitted development Class would exclude the development proposed, the LDO procedure should be considered. Working in conjunction with the relevant Planning Authorities, consideration should be given to the preparation of a LDO for specific area based schemes. Greater dissemination of good practice of LDO preparation may also help persuade Local Authorities of the efficacy of the LDO route / mechanism and accelerate wider deployment of this consenting option in England and Wales. (Note: there is no statutory provision for LDOs in Scotland).

Recommendation 4: Where a decentralised energy and / or heat system is proposed in an area which is considered to be environmentally sensitive and has the potential to impact on natural or cultural heritage assets, or where there is no LDO coverage, it is recommended that a planning application approach is pursued.

Recommendation 5: Flexibility in the approach to consenting will be integral to the timely and efficient deployment of the demonstrator project(s) which could come forward under the SSH Programme. A detailed planning strategy should be developed once the site specific locations / areas are known, and once the broad description and nature of likely proposed development for the area / location is known.

Recommendation 6: Insofar as planning policy is a 'barrier' to the deployment of development and infrastructure that could come forward under the SSH Programme, we consider that this could be addressed through providing appropriate and strengthened development management planning policy and guidance through existing policy mechanisms, such as the recently introduced online Planning Practice Guidance (PPG) (covering England and Wales). We consider that support from central Government to both alter planning policy provisions and provide guidance on the resolution of objectives competing with deployment could play a major role in accelerating and widening deployment of the SSH Programme throughout the UK. In England, if the National Planning Policy Framework (NPPF) is to be amended in the future then this would provide an appropriate medium, however the nature of the current online Planning PPG¹ provides a practical approach that is likely to present an earlier opportunity to introduce policy change.

The wording of the PPG in the first instance could be strengthened to strongly underpin the adoption of EnergyPath™. Reference to the software tool could be similar to current recommendations in the PPG towards the UK CHP development map and national heat map. The inclusion would require to be subject to agreement and discussions with DCLG and DECC but could ultimately be the *modus operandi* for gaining acceptance for change from LAs. The use of EnergyPath™ to identify types of technologies and suitable development sites as directed through national planning policy and guidance would encourage a SSH type market through the preparation of LA's planning policy documents (e.g. Development Plans and Supplementary Planning Documents) as per the recommendation below.

Recommendation 7: We consider that there is an opportunity for statutory Development Plans to identify parts of urban areas / settlements suitable for decentralised energy and related infrastructure and this could be considered in the form of zonings or for example, 'heat network / smart system opportunity areas'. The use of heat mapping (including through the potential application of EnergyPath™) could provide an evidential basis for such zonings, underpinning plan allocations / policies. Consideration should also be given to policy to support requirements in planning obligations to facilitate on-site deployment of district heating / smart system infrastructure.

Next Steps

The recommendations that we have set out lead to a number of 'next step' actions. One of these relates to discussing the recommendations with officials in DCLG and DECC. We consider this would be a prudent step to ensure that there is likely to be official support at a senior level in Government for the recommendations and subsequent actions (in particular those relating to policy change and use of the GPDO) which could follow from this Report and which are aimed at a successful and wider deployment of the SSH Programme throughout the UK, in parallel with the development of the EnergyPath™ software model.

Other next steps include:

- A workable and user friendly software tool with a clear planning interface is fundamental to enable planners, developers, decision-makers and local communities to understand the inputs and apply the model's outputs. Consideration should be given to the EnergyPath™ software model when it becomes available in terms of its urban planning interface with regard to how its use could be optimised with regard to plan making and decision making.
- Once demonstrator EnergyPath™ scenarios are being considered within the selected LA areas, the optimum consenting strategy for SSH Programme infrastructure should be scoped out based on the model's outputs / findings. At that point, actions and related budget costs for consenting procedures can also be refined from the high level overview that has been provided for the range of planning application types set out in Section 4.8.
- Further consideration should be given to scoping out the actions associated with taking forward the above recommendations.

¹ Online planning guidance is also available in Scotland which is frequently updated and amended: this also provides a practical approach for the introduction of amended planning guidance at the national level.

Contents

1	Introduction	5
1.1	Background.....	5
1.2	Structure of Report.....	5
2	Policy Framework	7
2.1	Introduction	7
2.2	Conclusions on the National Policy Review	7
3	Potential Development & Location Types	9
3.1	Introduction	9
3.2	Description of Potential SSH Programme Development.....	9
3.3	Area and Development Scenarios	11
4	Consenting Procedure Options	15
4.1	Introduction	15
4.2	Summary of Planning System.....	15
4.3	General Permitted Development Order.....	16
4.4	Local Development Order.....	19
4.5	Planning Applications.....	22
4.6	Requirement for Environmental Impact Assessment.....	26
4.7	Conclusions on Consenting Options.....	30
4.8	Indicative Programme for Consenting Options	31
5	Conclusions & Recommendations.....	35
5.1	Introduction	35
5.2	Conclusions and Recommendations	35
5.3	Planning Policy, Forward Planning and Plan Making.....	37
5.4	Next Steps	39
6	Appendix 1: National Energy & Planning Policy.....	42
6.1	Introduction	42
6.2	UK Energy and Heat Policy	42
6.3	Scotland: Energy and Heat Policy	48
6.4	Wales: Energy and Heat Policy	51
6.5	England: National Planning Policy and Guidance.....	52
6.6	Scotland: National Planning Policy and Guidance	59
6.7	Wales: National Planning Policy and Guidance.....	60
	GLOSSARY	63

1 Introduction

1.1 Background

1.1.1 Jones Lang LaSalle (JLL) has been instructed by the Energy Technologies Institute (ETI) to provide planning and development advice with regard to aspects of the ETI Smart Systems and Heat Programme (the “SSH Programme”). JLL was instructed in November 2013 to principally advise on two key aspects of the SSH Programme, namely:-

- Advice on the Local Authority (LA) engagement process which is being undertaken by the ETI in order to facilitate the pilot roll out of the EnergyPath™ (EP) software tool; and
- Advice on the potential and most appropriate consenting procedures and strategy for the deployment of smart systems and heat infrastructure.

1.1.2 The SSH Programme aims to create future-proof and economic heating solutions for the UK. This means solutions that work in the present and immediate future with the ability to adapt to circumstances in the longer term. It means technical solutions that can be deployed and work in a market environment to the benefit of industry. It also means solutions tailored for specific locations, designed within a national context.

1.1.3 The SSH Programme is focused on the design of new systems that will enable the delivery of efficient heat and comfort to meet local domestic and business requirements across the UK. The systems are not restricted to district heating, but will also include a range of other technologies and approaches including ground and air source heat pumps and building fabric retrofit solutions. Heat accounts for over 40% of the UK’s demand for energy with domestic heating accounting for almost of 20% of the UK’s carbon dioxide emissions.

1.2 Structure of Report

1.2.1 Our final Report to the ETI is presented in two Volumes as follows:-

- **Volume 1: ‘Local Authority Engagement – Appraisal Report’** - which contains the results of our detailed engagement and consultations with 11 LAs.
- **Volume 2: ‘Planning Policy & Consenting Strategy: Review and Recommendations’** – (this Report) which contains our findings and recommendations in relation to consenting procedures with regard to the type of infrastructure that is likely to come forward under the SSH Programme.

1.2.2 As noted above, in undertaking the instruction we have been assisted by Eversheds LLP as legal advisors. The input from Eversheds has principally been into the scope of Volume 2.

1.2.3 The Structure of this Volume is as follows:

- Chapter 2 covers the applicable policy framework. The policy framework we examine focuses on national planning policy and guidance in relation to SSH Programme infrastructure. The bulk of policy considerations are examined in depth in Appendix 1 in relation to the respective distinctions of England, Scotland and Wales. Conclusions are drawn on the main differences of the respective jurisdictions. In addition to national level heat and planning policy, we have also where appropriate, made reference to specific Government research and technical reports on the topic and have highlighted policy matters referred to in such documentation which we consider are of relevance to our commission.
- Chapter 3 examines the range of potential development and locational types that could be involved in the SSH Programme. In order for us to advise on appropriate consenting procedures it is necessary to have a broad understanding of the range and nature of potential development that could come forward under the Programme. In Chapter 3 we describe the likely nature of development as well as the range of locational circumstances in which it could be located.

Note: EnergyPath™ is the ‘registered trade mark of Energy Technologies Institute LLP’

- In Chapter 4 we examine the consenting procedure options and consider their respective strengths and weaknesses and draw conclusions.
- Chapter 5 presents our overall conclusions and recommendations and also takes account of the findings from Volume 1 in terms of our consultations with Local Authorities.



2 Policy Framework

2.1 Introduction

- 2.1.1 In this chapter we set out the relevant policy background at a national level in relation to low carbon heat. We firstly examine relevant policy at the UK level and make specific references to the position in England where appropriate. We also address the policy provisions in Wales and Scotland.
- 2.1.2 In addressing national policy we have sought to focus on key matters including relevant targets and cross references to planning policy. It needs to be noted that national energy and in particular heat policy, is a relevant and important material consideration for Local Authorities when they are addressing the matter of heat and associated development infrastructure, in both their forward planning function and in terms of development management.
- 2.1.3 In Appendix 1 we set out a review of national energy and heat policy and related national planning policy and guidance with regard to the UK, England, Wales and Scotland.
- 2.1.4 The approach we have taken is not intended to be an entirely comprehensive review of all national heat policy, but rather we have focused upon what we consider to be key documents and policy provisions relevant to our current terms of reference.

2.2 Conclusions on the National Policy Review

- 2.2.1 From the review of UK energy and heat policy it is clear that the various policy documents recognise the pivotal role that Local Authorities have in enabling the development, deployment and expansion of heat networks. The 'Future of Heating' reports published by DECC make reference to a number of actions required to overcome barriers to the wider deployment of heat networks. These include reference to increasing statutory undertaker powers, to addressing the use of planning powers to support further heat network development. It is notable that actions relate to the need to further share good practice, but also as set out in the 'Future of Heating' include that:- *"The Government will consider the need for practice guidance to support the implementation of national planning policy and low carbon and renewable heat networks"*.
- 2.2.2 It was also notable that the same Report highlighted that there was a case for producing technical standards on the design installation and maintenance of heat networks. As we comment in our recommendations below, such an approach would also potentially assist with the wider take up of Local Development Orders in England and Wales.
- 2.2.3 It was also of note from the review of energy and heat policy in Scotland, that the Expert Commission on District Heating (2012) highlighted a number of key points for future practice, including the need for a right of access for repairs and also, *inter alia*.
- Recognition that the level of expertise in planning for heat networks amongst LPAs was varied;
 - The rapid roll out of heat mapping was seen as crucial to accelerating wider deployment of heat networks;
 - It was acknowledged that it would greatly simplify the development of district heating schemes if installations that conform to required standards become permitted development;
 - The Scottish Government should issue guidance on both national and local aspects of planning for district heating;
 - Local authorities should designate areas based on heat maps where there would be a presumption in favour of district heating development or refurbishment / retro-fitting.
- 2.2.4 It was evident that the position in terms of detailed planning policy and guidance is further developed and more detailed in England and Scotland compared to Wales but the overall conclusion reached is that the planning policy position whilst referenced in documents such as the National Planning Policy Framework (NPPF) and the

more recent Planning Practice Guide (PPG) 2014) and in the Scottish Planning Policy (SPP), could be strengthened to enable wider deployment across the UK.

2.2.5 The NPPG sets out the importance for Local Planning Authorities in ‘Developing a strategy for renewable and low carbon energy’.

2.2.6 The guidance specifically addresses the question ‘How can local planning authorities develop a positive strategy to promote the delivery of renewable and low carbon energy?’ It states:

“Local and neighbourhood plans are the key to delivering development that has the backing of local communities. When drawing up a Local Plan local planning authorities should first consider what the local potential is for renewable and low carbon energy generation. In considering that potential, the matters local planning authorities should think about include:

- *the range of technologies that could be accommodated and the policies needed to encourage their development in the right places;*
- *the costs of many renewable energy technologies are falling, potentially increasing their attractiveness and the number of proposals;*
- *different technologies have different impacts and the impacts can vary by place;*
- *the UK has legal commitments to cut greenhouse gases and meet increased energy demand from renewable sources. Whilst local authorities should design their policies to maximise renewable and low carbon energy development, there is no quota which the Local Plan has to deliver”.*

2.2.7 The NPPG goes further to set out ‘How can decentralised energy opportunities be identified?’ It states:

“There is an important contribution to be made by planning that is independent of the contribution from other regimes such as building regulations. For example, getting the right land uses in the right place can underpin the success of a district heating scheme. Similarly, planning can influence opportunities for recovering and using waste heat from industrial installations.

Planning can provide opportunities for, and encourage energy development which will produce waste heat, to be located close to existing or potential users of the heat. Planning can also help provide the new customers for the heat by encouraging development which could make use of the heat.

Information on local heat demand is published by the Department of Energy and Climate Change to assist planners and developers in identifying locations with opportunities for heat supply. See the national heat map and the UK CHP development map. This information will be supplemented in future by further work, including detailed mapping, on the potential for combined heat and power and district heating and cooling”.

2.2.8 Support from central Government to both alter planning policy provisions and provide planning guidance on the resolution of objectives competing with deployment could play a major role in accelerating and widening deployment of the SSH Programme and EnergyPath™ throughout the UK. In England, if the NPPF is to be amended in the future then this would provide an appropriate medium, however the nature of the current online NPPG provides a more practical approach that is likely to present an earlier opportunity to introduce policy change.

2.2.9 EnergyPath™ is a software tool to design cost-effective local energy systems for the UK. The tool could be well positioned to assist LAs in the assessment of a range of technologies and evaluation of costs and impacts as well as identifying opportunities for delivery, thereby fulfilling the expectations of Government with regard to the preparation of local strategies for renewable and low carbon energy.

2.2.10 The potential application of EnergyPath™ could provide a local evidential basis for underpinning development plan allocations and development management policies. Local Authorities could use EnergyPath™ as an integral part of the plan making process to identify decentralised energy opportunities. Ultimately prescribing the use of any specific software tool through planning guidance and policy would need to be subject to further detailed discussions with DCLG and DECC. This is addressed in the conclusions section of this Report.

3 Potential Development & Location Types

3.1 Introduction

3.1.1 This chapter outlines the nature of potential development that could come forward under the SSH Programme in order to inform the consideration of consenting procedures that could be followed for proposed infrastructure. In order to provide legally robust advice on appropriate procedures, options and the overall consenting strategy, it is necessary to have an understanding of the nature of works which could comprise ‘development’ and in turn that would require planning permission.

3.1.2 To determine whether planning permission is required, the following questions must be asked of proposed activity:

- Does it fall within the statutory definition of development under the Town and Country Planning Act 1990²?
- Is it activity which is declared not to amount to “development” for example, in terms of the Use Classes Order (UCO)? and
- Is it planning permission deemed to be granted for the proposed activity, for example, in terms of the Permitted Development Order (PDO)?

3.1.3 It is a question of the facts and circumstances of each individual case whether the proposal in question falls within the requirement for permission. Depending on the answer to any of these questions, an application for planning permission must be submitted before the proposed activity can be commenced.

3.1.4 Section 55 of the Town and Country Planning Act 1990 defines “development,” as the carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land.

3.2 Description of Potential SSH Programme Development

3.2.1 The nature of possible ‘development’ under the SSH Programme is as follows:

- Housing retrofit with enabling technologies such as ground or air source heat pumps, external building fabric insulation; and associated IT systems including:
 - HEMS (Home Energy Management Systems) - A system that uses sensors and information technologies to provide visibility of power consumption in the home and save energy.
 - BEMS (Building and Energy Management Systems) - A computer-based system for controlling all building equipment including air conditioners, electricity, water supply and drainage, disaster and crime prevention systems and others. The system helps improve the building environment and save energy, among other benefits.
 - Heat and Hot Water Supply through a heat network.
- District / Community Heat Networks (DHN / CHN) and related infrastructure, including underground pipework.
- Could include installation of new connections to existing networks / grid and the provision of distributed storage facilities related to heat and electricity.

3.2.2 Heat networks often referred to district heating schemes, essentially supply heat to multiple buildings or dwellings from a central source such as an energy centre. The system can provide heating or cooling which is transferred from the energy centre through a network of highly insulated underground pipes carrying the water to each building. Each building would have a heat exchange unit, including heat meter to monitor how much heat is used.

² In England, and in Scotland the equivalent provision under the Town and Country Planning (Scotland) Act 1997 as amended.

- 3.2.3 This means that the individual homes and commercial properties do not need to generate their own heat on site. District heating networks provide the means to transport heat efficiently. Heat networks enable energy (often wasted in power generation or industrial processes) to be harnessed and delivered to particular points of use. This allow for economies of scale as the generation of heat from large sources can often be more efficient than production from multiple sources.
- 3.2.4 The SSH Programme is focused on the design of new systems that will enable the delivery of efficient heat and comfort to meet local domestic and business requirements across the UK. It is important to emphasise that the likely systems are not restricted to district heating, but will also include a range of other technologies and approaches including ground and air source heat pumps and building fabric retrofit solutions.
- 3.2.5 The majority of domestic heating today is delivered through gas boilers. However, it is anticipated that their prominence will reduce over time as new approaches to heat supply, including heat networks and heat pumps are introduced and demand management, such as improved thermal efficiency of buildings increases.
- 3.2.6 In addition to technology options, the range of low carbon heat sources is likely to be varied. The DECC Report ‘The Future of Heating’³ (2012) sets out that “Heat networks are compatible with a wide range of heat supply options and provide a way to distribute low carbon heat, which makes them easily upgradeable, creating flexibility to make the transition to low carbon heat over time with less disruption for consumers and businesses.” The range of heat sources referred to includes:
- *“Fossil fuel Combined Heat and Power (CHP): Gas CHP is currently the most cost-effective means of developing a heat network. There are strong synergies between district heating and gas CHP; gas-CHP engines can be employed quickly to serve existing or new district heating networks, delivering relatively low carbon heat as well as electricity as a revenue stream.*
 - *Biomass boiler: Boilers running on woodchips and wood pellets.*
 - *Conventional gas boilers: Boilers fired by natural gas.*
 - *Bio-CHP: CHP that utilises renewable fuels such as biomass, biogas, bio-liquids and the bio-element of waste. Bio-CHP allows for low carbon generation of heat and electricity.*
 - *Biomass co-firing: this involves supplementing existing fossil fuel based CHP plants with biomass feedstock.*
 - *Deep geothermal: Geothermal energy originates from heat retained within the earth from radioactive decay of minerals. Heat is extracted via wells roughly 1,500 meters deep.*
 - *Large heat pumps: Heat pumps used as either a centralised system utilising one larger heat pump or a de-centralised system using multiples of smaller controlled heat pumps.*
 - *Heat recovered from industrial processes: heat which has been used once and is no longer useful to a business (because it is no longer hot enough for the industrial process) is generally expelled through a chimney or cooling tower. This is especially the case for high temperature industry, whose discarded heat can provide a low-carbon alternative to the direct use of heating fuels for low temperature users.*
 - *Heat recovered from thermal power generation: these can include thermal power stations which use coal, gas (i.e. fossil fuel CHP), nuclear, energy from waste and biomass. In the future this could include power stations fitted with carbon capture and storage.*
 - *Heat from incinerating non-recyclable waste: waste management systems separate out the recyclable waste and generate heat by incinerating non-recyclable waste.*
 - *Conversion of electricity to heat when electricity is in plentiful supply the future electricity generation mix is expected to result in more occasions when the electricity price is low, such as when the wind is blowing and*

³ DECC, ‘The Future of Heating’ (2012) Chapter 3, p66 Box 12: Types of heat sources compatible with heat networks.

demand is also at a low level. At these times of high supply, electricity can be stored as heat in a tank or in the system and used when needed, taking advantage of the lower electricity price”.

3.2.7 The ETI ‘Local Authority Partner and Demonstration Site Selection Questionnaire’ also provided some brief information on the nature of possible ‘development’ that could come forward under the SSH Programme. It stated:

“The level of energy used in heating properties and domestic water requires significant resources from the UK energy system. The SSH Programme seeks to address future demand challenges in this area. The programme is intended to design and validate a first of its kind, and commercially viable smart energy system in the UK. It is intended to demonstrate better ways of distributing low carbon heat around our cities and across the country in a cost effective and secure manner”.

The key goal is to *“develop a commercialised smart energy system, which can be replicated across the UK”.*

3.2.8 The Programme is intended to employ a holistic and co-ordinated approach to addressing the delivery of heat and power in homes and other buildings in the community (e.g. small scale commercial/publicly owned buildings). The programme aims include *inter alia*:-

- Provide energy services and integrated products (i.e. the physical elements) to consumers in domestic and commercial buildings (primarily domestic and the retrofit of pre-existing buildings);
- Focus on space and water heating (comfort, health and cleanliness), but include other energy service needs in, or connected to, buildings (e.g. vehicle charging);
- Understand the evolution of the whole of the energy system to 2050, including buildings, retrofits and energy distribution choices.

3.2.9 Question 4 of the related Questionnaire put to local authorities referred to location and stated that the ETI anticipated *“that the demonstration (phase 2) of the programme may include a small number of demonstrator locations across the UK.....the ideal locations would be representative of the housing types, energy supply, domestic stock ownership structures and demographics found elsewhere in the UK”.*

3.3 Area and Development Scenarios

3.3.1 A range of different locational characteristics on a broad continuum from a highly urbanised city centre mixed use situation, through suburban residential to isolated rural properties has been considered as part of the consenting process. The scale of locational scenarios is still uncertain and may vary from location to location from a small group of properties to more extensive, high density urban areas.

3.3.2 It is important that these ‘scenarios’ (as set out in Table 3.1 below) are seen as examples and hypothetical urban typologies being put forward simply as a framework at this stage, for the consideration of different SSH Programme ‘development’ types. In summary, the proposed SSH Programme technology range is likely to be varied, depending on the respective urban scenario.

Table 3.1: Urban Typologies and Generation and Infrastructure Types

Urban / City Centre Mixed Use

Generation	Infrastructure
<ul style="list-style-type: none"> • Biomass / gas fired boilers • Carbon Capture Storage • District Energy 'Centre' (could involve one of various generation types) • Gas Engine • Community sized heat pumps 	<ul style="list-style-type: none"> • District heating and cooling (public and commercial buildings) • Combined Heat and Power (CHP) district heating & hot water • Pipe network and ancillary engineering works • Heat exchange equipment • Above ground cabinets • Other 'street furniture' • External Wall Insulation • Electric Vehicle (EV) charging infrastructure

Suburban / Residential

Generation	Infrastructure
<ul style="list-style-type: none"> • Recycling and Energy Recovery • Geothermal exploitation 	<ul style="list-style-type: none"> • CHP district heating & hot water • Pipe network and associated engineering works • External Wall Insulation • Air and Ground Source Heat Pumps • Heat exchange equipment • Above ground cabinets • Other 'street furniture' • Wall and loft insulation • Deployment of smart metering technology • Boiler replacement

Compact Village / Small Settlement Centre

Generation	Infrastructure
<ul style="list-style-type: none"> • Geothermal exploitation • Thermal Storage Vessel • Shared Heat Pump • Waste to Energy • Biomass Boiler 	<ul style="list-style-type: none"> • Ground and Air Source Heat pumps • External Wall Insulation • Micro CHP technologies • Above ground cabinets • Deployment of smart metering technology

Rural / Isolated Properties

Generation	Infrastructure
<ul style="list-style-type: none"> • Ground and Air Source Heat pumps • Geothermal exploitation 	<ul style="list-style-type: none"> • Ground and Air Source Heat pumps • External Wall Insulation • Micro CHP technologies • Deployment of smart metering technology

3.3.3 In Table 3.2 below we have set out a more detailed breakdown of the range of infrastructure development that could come forward under the Programme and have added comment as to whether the development types are likely to require consent, with reference to the General Permitted Development Order (GPDO) (described in more detail in the following Chapter) and with reference to requirements for planning applications.

Table 3.2: Local System Configuration Options (Leading candidates for retrofit)

Local System Options	Description	Require Planning Permission
(1) Individual Gas Boiler	High carbon, individual heating <i>(new technologies must compete with these incumbents)</i>	No - Internal works only
(2) Individual Oil or LPG Boiler	High carbon, individual heating <i>(new technologies must compete with these incumbents)</i>	No - Internal works only
(3) Individual Electric Resistive	Low carbon pathway, individual electric heating	No - Internal works only
(4) Individual High Temperature Air Source Heat Pump	Low carbon pathway, individual electric heating	Possibly: Consider GPDO subject to criteria, or Planning Application
(5) Individual Low Temperature Air Source Heat Pump / Gas Boiler Hybrid	Low carbon pathway, individual gas/electric hybrid heating	Possibly: Consider GPDO subject to criteria, or Planning Application
(6) Individual Low Temperature Air Source Heat Pump / Oil or LPG Boiler	Low carbon pathway, individual gas/electric hybrid heating	Possibly: Consider GPDO subject to criteria, or Planning Application
(7) Shared Air Source Heat Pump / Ground Source Heat Pump	Low carbon pathway, shared heat networks	GPDO GSHP
(8) Large Scale Ground Source Heat Pump/Water Source Heat Pump District Heat Network	Low carbon pathway, shared heat networks	Class C GPDO and Class D GPDO
(9) Large Scale NG Combined Heat and Power District Heat Network	Low carbon pathway, shared heat networks	Major Planning Application
(10) Large Scale Hydrogen District Heat Network	Low carbon pathway, shared heat networks	Major Planning Application
(11) Waste Heat Exploitation District Heat Network	Low carbon pathway, shared heat networks	Major Planning Application

4 Consenting Procedure Options

4.1 Introduction

4.1.1 Consideration has been given in this Chapter to consenting implications for implementing potential development proposals which may come forward under the SSH Programme. It summaries the consenting regime in the UK, and considers three potential mechanisms for delivering consent for the likely development proposals, having regard to some case studies; this includes the General Permitted Development Order, Local Development Order and the use of a planning applications. This Chapter has also had regard to the responses received as part of the Local Authority Engagement process, as reported within Volume 1.

4.2 Summary of Planning System

4.2.1 As noted above, Section 55 of the Town and Country Planning Act 1990 defines “development,” as the carrying out of building, engineering, mining or other operations in, on, over or under land, or the making of any material change in the use of any buildings or other land.

4.2.2 The development of a decentralised energy system would normally fall within the definition of development under Section 55 of the 1990 Act; therefore such works would normally need planning permission. There are certain circumstances where planning permission would not be required, and these would include the following:-

- Where the works were being undertaken by a Statutory Undertaker and falls within Permitted Development Rights under the Town and Country (General Permitted Development) Order 1995;
- The works are included within a wider scheme which has planning permission;
- The works are covered by a Local Development Order (LDO);
- The works are classified as de minimis.



Figure 4.1: Wall and Loft Insulation would not be defined as development and therefore not require planning permission.

4.3 General Permitted Development Order

- 4.3.1 Permitted Development Rights (PDRs) are basically rights to make certain changes to a building without the need to apply for planning permission. These derive from a general planning permission granted from Parliament in the Town & Country Planning (General Permitted Developments) Order 1995 (the GPDO) and subsequent amendments, rather than planning permission granted by a LPA.
- 4.3.2 Whilst the intention of PDRs is to exclude relatively minor development proposals from planning control, the scope of the rights are however restricted in the following circumstances:-
- Listed Buildings, Conservation Areas, National Parks and Areas of Outstanding Natural Beauty (AONBs);
 - Development which requires an EIA;
 - Prior approval from the LPA is required for certain development e.g. telecommunications and agriculture;
 - Where an Article 4 Direction is served removing specified permitted development rights.
- 4.3.3 Schedule 2 of the GPDO sets out the scope of permitted development rights, and these are considered below.
- 4.3.4 If proposals for a decentralised network are brought forward by a LPA on land in its ownership, or it is on Local Highway Authority land, it may be delivered under PDR under Parts 12 and 13 of the GPDO. It is assumed that this would not apply to proposals which come forward as part of the SSH Programme which would be expected to fall outside the specified conditions for development to be permitted.
- 4.3.5 Part 17 of the GPDO allows development for or on behalf of statutory undertakers, this includes developments related to railways (Class A), docks, piers, harbours or inland navigation (Class B), inland waterways (Class C), dredging (Class D), water undertakings (Class E), gas suppliers (Class F), electricity undertakings (Class G), road transport (Class H) and airports (Class I).
- 4.3.6 Classes F and G of Part 17 enable infrastructure associated with the supply of gas and electricity to be permitted development, this includes the laying of underground mains, pipes or other apparatus. Whilst Classes F and G allow minor works associated with the supply of electricity and gas, it is not considered that this would apply to decentralised heating systems, unless it was brought forward for or on behalf of a statutory undertaker
- 4.3.7 Part 40 of the GPDO, which came into force on 6th April 2008 relates to the installation of domestic micro-generation equipment.
- 4.3.8 Micro-generation is the installation of small scale production of heat and for electricity from low carbon sources, including solar, wind or biomass. Previously the installation on domestic dwellings required planning permission.
- 4.3.9 In April 2008 the GPDO was amended to grant permitted development rights to domestic properties for certain forms of micro-generation equipment and was originally Part 40. This did not include domestic wind turbines and air source heat pumps. It was considered by the Government that the requirement to apply for planning permission for micro-generation equipment was a significant barrier to its wider take-up. It was also found that there was a lack of clarity about whether planning permission was required for some technologies and as a result, LPAs interpreted the regulations differently. The response from the industry was that the often complex, costly, time consuming and uncertain process of seeking planning permission was a significant barrier to the contribution that micro-generation could make to meeting the UK's energy needs.
- 4.3.10 Following consultation, both the English and Scottish GPDOs were amended to allow micro-generation, which is defined as the generation of electricity or the production of heat of any plant which relies wholly or mainly on any of the following sources of energy or a technology including.
- a) Biomass;
 - b) Biofuels;
 - c) Fuel cells;
 - d) Photo-voltaics;

- e) Water;
- f) Wind;
- g) Solar Power;
- h) Geothermal sources;
- i) Combined heat and power systems;
- j) Other sources.

4.3.11 In England, the GPDO was amended to permit the installation of specified domestic micro-generation equipment within the curtilage of dwelling houses, provided they met specified criteria.

4.3.12 On the basis of Part 40 of the GPDO⁴, a system of permitted development rights exist for small scale production of heat and/or electrics from low carbon sources, which could include some of the low carbon individual energy systems being contemplated by the ETI, including water, ground and air source heat pumps.

4.3.13 Class C allows the installation, alteration or replacement of a ground source heat pump within the curtilage of a dwellinghouse or a block of flats. Part D provides a similar provision with regard to water source heat pumps and part G in relation to air source pumps.

4.3.14 Class E & F permit the installation, alteration or replacement of a flue forming part of a biomass or part of a combined heat and power system on a dwellinghouse or block of flats. Exclusions are in circumstances where the flue would exceed the highest part of the roof by 1m or more, or in a case whereby the land was in a Conservation Area, or World Heritage Site, or if the flue was to be installed on a wall or roof slope which fronts a highway.

4.3.15 In respect of an air source heat pump (ASHP) Class G, of the Part 40 of the GPDO allows the installation, alteration or replacement of an air source heat pump on a dwellinghouse or block of flats or within the curtilage of such types of properties or on a building within that curtilage, provided it meets a number of criteria which includes:-

- Must comply with MCS5 Planning Standards or equivalent.
- No more than one ASHP on the same building or within the curtilage of the building or block of flats.
- the volume of the ASHP outdoor compression unit (including any housing) should not exceed 0.6 cubic metres.
- No part of the ASHP would be installed with 1m of the boundary of the dwelling or block of flats.
- the ASHP cannot be installed on a pitched roof or on a flat roof where it would be within 1m of the external edge of that roof.
- the ASHP cannot be installed on a site designated as a scheduled monument.
- The ASHP cannot be installed on a building or on land within the curtilage of a dwellinghouse or block of flats if the properties are Listed Buildings.
- in a Conservation Area or World Heritage Site the ASHP cannot be installed on a wall of a dwelling house which fronts a highway or is above the level of the ground storey.

4.3.16 **Various conditions also apply.** It is a condition of Class G that the ASHP must be used solely for heating and be sited in such a way as to minimise its effect on the external appearance of the building and the amenity of the area. It is also a requirement that when no longer required for micro-generation, it shall be removed “as soon as reasonably practical”..In Wales, new planning guidance was introduced in 2009 to enable certain types of micro-

⁴ The Town and Country Planning (General Permitted Development) (Amendment) (England) Order 2011, page 3.

⁵ MCS Planning Standards Certification Scheme for permitted development installations of wind turbines and air source heat pumps on domestic premises (MSC 020), Department of Energy and Climate Change (2008).

generation equipment to be removed from requiring planning permission. The Wales the GPDO⁶ go further than those in England, by allowing stand-alone solar panels within the curtilage of dwelling-houses. Class C of the Wales GPDO relates to ground source heat pumps, and Class D to water source heat pumps.

- 4.3.17 In Scotland, the relevant provisions relating to biomass heating, ground and water source are contained in the GPDO⁷ (2009).
- 4.3.18 In the Budget of 2014 it was announced that the Government would review the GPDO. The Chancellor stated that the Government has *“taken decisive steps to improve and streamline the planning system. To support businesses and households further, the Government will review the GPDO. The refreshed approach is based on a three tier system to decide the appropriate level of permission, using Permitted Development Rights for developments requiring consideration on specific issues and planning permission for their larger scale development.”*
- 4.3.19 We set out in Chapter 5 below, our recommendation that consideration be given to seeking amendments to the GPDO for shared heat networks. The changes would seek to enable the ability to develop new and retrospective shared heat networks including pipes, heat exchange equipment, street furniture and ancillary engineering works as permitted development.
- 4.3.20 Securing such changes nationally would avoid the need for shared heat network providers to apply to LPAs for either planning permission or for consent to have to be granted by way of LDOs. The potential introduction of a new Permitted Development Class to cover infrastructure that could come forward through the SSH Programme, would avoid the need for planning permission, provided it fell within the scope of the defined Class. As with recent changes to the GPDO, the development would be permitted subject to the developer / applicant applying to the LPA for a determination as to whether the prior approval of the Authority would be required, for example domestic micro-generation equipment.
- 4.3.21 Whilst certain individual energy systems may benefit from the provisions with Class 40 of the GPDO, it is important to recognise the limitations within the GPDO, in particular the development permitted in relation to micro-generation only applies to individual domestic properties, rather than shared networks or to large scale development serving groups of properties.
- 4.3.22 A summary of the strengths and weaknesses of the GPDO is set out in Table 4.1 below.

Table 4.1: General Permitted Development Order – Strengths and Weaknesses

Strengths	Weaknesses
Uniform for All Local Authorities	Would requires change to secondary legislation if amendments to the GPDO are to be sought - this can be a lengthy procedure including a requirement for consultation
Certainty for Developers & Other Parties	Specific classes and associated conditions and caveats can be open to interpretation
Avoids significant costs of preparing a planning application or LDO	
Avoids the complexity and timescales	Unless specific technology is known, it could be difficult

⁶ The Town and Country Planning (General Permitted Development) (Amendment) (Wales) Order 2009 – No.2193 (W.185).

⁷ The Town and Country Planning (General Permitted Development) (Domestic Microgeneration) (Scotland) Amendment Order 2010. Also contained within the consolidated version of the Scottish GPDO (2011), page 16 *et seq.*

associated with planning applications and LDO.	to set the parameters of permitted development
Allows certain local energy system options to be developed without express need for planning permission.	Need 'buy in' from DCLG, Welsh and Scottish Governments for amendments - the latter two have devolved planning powers
	Does not permit development which requires Environmental Impact Assessment, large scale, or in relation to cultural heritage assets (e.g. Conservation Areas and Listed Buildings)
	Practice indicates that applicants generally comfort from LA on 'permitted development' requiring some dialogue or a Certificate of Lawful Use
	Approach limited to blocks of flats or a single dwelling and not applicable to groups of non flatted dwellings

4.4 Local Development Order

- 4.4.1 An alternative to the submission of a planning application is a Local Development Order (LDO) which enables a LPA to grant permission for a particular type of development.
- 4.4.2 The provision for LDOs was originally introduced in the Planning and Compulsory Purchase Act 2004 (the 2004 Act). The intention of the LDO is to grant permission for certain types of development in a specified area, subject to conditions without the need for permission, removing the requirement for a planning application.
- 4.4.3 When originally introduced in the 2004 Act, LPAs could only adopt an LDO through a policy in their Development Plan. This was amended in the Planning Act 2008 to enable LPAs more discretion: this applies in England and Wales (not Scotland). LDOs have become an important planning tool and have become particularly important in encouraging economic growth and regeneration.
- 4.4.4 The UK Government has been encouraging LPAs to adopt LDOs in order to lower the barriers to development and growth. The NPPF in England recognises that the planning system has an important role in encouraging sustainable growth and specifically encourages a proactive approach to meet development needs of business and reduce the burden of planning requirements. It suggests consideration should be given to LDOs in order to *“relax planning controls for particular areas or categories of development, where the impacts would be acceptable, and in particular where this would promote economic, social and environmental gains for the area, such as boosting enterprise”*. (Paragraph 199)
- 4.4.5 LDOs can be seen as an extension of permitted development rights given under the GPDO, but are prepared and decided locally in response to local circumstances. An LDO can relate to all land in a Local Authority area, or only to a part of that land. Normally, development covered by an LDO is likely to be relatively minor.
- 4.4.6 There are a number of statutory restrictions which apply to types of development permitted by an LDO and these include:-
- Development affecting a Listed Building;
 - Development affecting a European designated site;
 - 'Schedule 1 EIA development.
- 4.4.7 In relation to Schedule 2 development under the EIA Regulations, where a LPA proposes to grant permission by way of an LDO, a screening opinion must be adopted. Where the screening opinion is to the effect that the

development is EIA development, an LDO shall not be made until an environmental statement has been prepared by the LA and it has taken that information into consideration and stated in its decision that it has done so.

- 4.4.8 Usually an LDO imposes conditions, to ensure that the development proposed is capable of delivering the set objectives. This will include setting out precisely what development is and is not allowed, specifying other guidance which needs to be followed and setting out certain actions which need to be implemented such as consultation.
- 4.4.9 When making an LDO, an authority must comply with the same publicity and consultation requirements as required with the production of a Development Plan Document, and must consult any body that would have been a statutory consultee, had the development been the subject of a planning application.
- 4.4.10 LDOs offer a number of advantages. One of the key benefits of an LDO is time savings: LDOs generally involve a pre-notification procedure, in which the Authority confirms that a proposed development conforms to the Order and can go ahead. This usually takes 2 – 3 weeks.
- 4.4.11 There are also significant cost and effort savings (assuming that EIA is not required by virtue of the nature of the development); securing development through the LDO approach is likely to be considerably cheaper and easier than making a planning application, by avoiding the need for technical studies, consultation and legal advice. A key advantage of the LDO approach will be that it provides greater certainty on the basis that once in place, any development proposal that meets the conditions laid down in it is highly likely to be accepted.
- 4.4.12 LDOs do not suit all areas or types of development. They can be very effective where the development proposed is generally uncontentious and where the area is relatively unconstrained, with the absence of sensitive environments. Whilst preparing LDOs can be uncomplicated and straightforward, they can take over 12 months to prepare.

Case Study – London Borough of Newham District Heating Local Development Order

- 4.4.13 In the London Borough of Newham, the Council approved their District Heating Network LDO in March 2013 covering the Royal Docks⁸, Beckton and Canning Town. This LDO grants planning permission for minor works associated with implementing the Newham Heat Network. It is relevant to note that this LDO took circa 18 months to prepare following the commissioning of an initial Heat Mapping Study in November 2011. The intention of the LDO was to promote the development of decentralised energy in Newham. The purpose was stated to be:
- enable a staged rollout of the heat network and in response to opportunities which arise, maximising the potential of the Royal Docks Enterprise Zone;
 - link up individual Combined Heat and Power (CHP) schemes within the borough, enabling existing residents to benefit over the longer term from reduced heating costs;
 - increase Newham’s energy resilience and reduce fuel poverty over the longer term;
 - reduce regulatory and bureaucratic barriers to heat network expansion without compromising on mitigation of local impacts; and
 - reduce the cost of network development, raise awareness and build knowledge.
- 4.4.14 The District Heating LDO granted planning permission for “a heat network including pipes, heat exchange equipment, street furniture, informational signage and ancillary engineering works” along the length of the route.
- 4.4.15 The LDO specifically excluded the following development i.e. it was not permitted by the Order:-
- above ground cabinets, buildings or structures of greater than 1.0cubic metres in volume or greater than 1.4m in height;

⁸ The LDO was part of the streamlined planning process for the Royal Docks Enterprise Zone.

- any sign of greater than 70 sq cm in area;
- any thermal energy generating plant or equipment;
- EIA development as defined by regulation 2 (1) of The Town and Country Planning (EIA) Regulations 2011;
- Any works within the curtilage of Listed Building or Scheduled Ancient Monument (SAM), and their settings;
- Any above ground development on land adjacent to the curtilage of a Listed Building or SAM and their settings;
- Within areas to which a direction under Article 4 of The Town and Country Planning (General Permitted Development) Order 1995 is in force, development of a type described in that direction;
- Any development which would be referable to the Mayor or London as required by the Mayor of London Order 2008 or subsequent amendments.

4.4.16 The LDO defines the following:-

- The area covered by the LDO;
- Description of Development identity which is permitted and not permitted;
- Sets out the conditions which, the consent is pursuant to including;
 - Expiry Date;
 - Existing Condition Survey to be undertaken;
 - EIA Screening & Scoping;
 - Ecological Survey – where Scoping exercise identifies an issue;
 - Contamination investigation undertaken (if required);
 - Remediation Scheme (if required);
 - Archaeological Heritage Assessment where scoping identifies an issue;
 - Tree Survey (if relevant);
 - Reinstatement of site following temporary works within a specified time;
 - Technical specification – The heating network will be required to confirm to a technical specification published by GLA;
 - Code of Construction Practice to be followed;
 - Details of construction affecting public highway land to be submitted and approved.

4.4.17 It is understood that the LDO was prepared on the basis that standard planning applications and street works licences were not suited to manage development of the type likely to come forward, and the Council recognised that the implementation of a district heating network would be similar in nature to a utilities network.

4.4.18 Following a feasibility study undertaken by Arup in 2009, it was concluded that the LDO approach offered real potential benefits, including:-

- Stimulation of the development of district heating networks;
- Removal of planning barriers to enable roll out of network in response to market demand;
- LDOs well suited to a class based development approval;
- The Newham example is in place for 5 years (as opposed to a planning permission which has a standard 3 year life);

- LDO encourages a standardised materials and methods.

4.4.19 Table 4.2 below sets out a summary of the strengths and weaknesses of the LDO approach.

Table 4.2: Local Development Order – Strengths and Weaknesses

Strengths	Weaknesses
Relatively simple process (many LAs have adopted LDOs for Enterprise Zones): supported by policy in the NPPF	Specific to the type of development, usually minor development for which planning permission would normally be given
Timeframes for adoption can be circa 12 -18 months and then they are in force for 5 years	Separate planning applications likely to be required for some development elements i.e. energy generation / centres
Facilitates an area based approach to development which is decided locally	Excludes Listed Buildings and Conservation Areas
Enables a staged 'roll out' in response to market opportunity, without the delay and uncertainty associated with a planning application	No provision in Scotland for LDOs and limited experience of deployment in Wales
Can serve as a policy implementation tool by facilitating delivery of infrastructure	Does not grant consents required under other legislation
Supports a 'Class based' development approval' eg an approach for a decentralised energy network formed of standard components and implementation / construction methodologies	A specific LDO would be required for each geographical area
Could encourage other market entrants to adopt common design standards, materials and methods which would comply with terms of a LDO	There remains consultation requirements with the use of LDOs
Would help ensure future integration of different local operator's systems	
Can permit development likely to have significant environmental effects provided requirements relating to EIA are complied with	

4.5 Planning Applications

4.5.1 As noted above, the construction and installation of a decentralised heating network would normally fall within the definition of 'development' under the terms of the 1990 Act. The installation of a heating system within a new development or as part of a retrofit scheme would constitute an engineering or building operation for which full planning permission would be required.

- 4.5.2 The submission of a planning application will be project and area specific; and will usually require supporting material including technical and environmental studies, consultation information and possibly legal advice. The cost of preparing an application will depend on the size and complexity of the scheme, but could be significant.
- 4.5.3 The planning system is plan-led and planning law⁹ requires applications for planning permission to accord with the Development Plan, unless material considerations indicate otherwise. The planning application process does not provide a cast iron guarantee that any development proposal will receive planning permission. There is always a prospect that permission could be refused, even where it may appear non-contentious in planning terms.
- 4.5.4 The planning application approach contrasts to the permitted development and LDO approach, both of which provide greater certainty and speed. The application process can in some cases, be a very technical and expensive process.

Case Study – Air Source Heat Pumps on the Isle of Wight

- 4.5.5 An affordable housing provider on the Isle of Wight sought planning permission for the installation of air source heat pumps at ground level and associated pipework/ducting (Planning Application Reference P/00159/13). The proposal related to the provision of 26 new pump systems on the existing building located at low-level. Due to the size and scale of the air source heat pump units the planning application found there would not be any undue impact on the neighbouring properties or character and appearance of the area. The surrounding development is primarily two storey brick dwellings.
- 4.5.6 The proposed development would not normally require planning permission under the Town and Country Planning (General Permitted Development) (Amendment) (England) Order 2011 which refers to ‘Class G’ as *“The installation, alteration or replacement of an air source heat pump:*
- (a) on a dwellinghouse or a block of flats; or*
- (b) within the curtilage of a dwellinghouse or a block of flats, including on a building within that curtilage”.*
- 4.5.7 Under the GPDO the volume of the air source heat pump’s outdoor compressor unit (including any housing) must not exceed 0.6 cubic metres. However a planning application was required in this particular case due to the number of devices to be installed.
- 4.5.8 The supporting information submitted by the Applicant with the planning application detailed that the nominal sound pressure level would be 45dBA at a distance of 1 metre from the outdoor unit (Sound Power Level 61dBA). The Council’s Environmental Health Officer raised no adverse comments regarding noise and as such, given the siting and scale of the proposal there was not considered to be any unacceptable adverse impact on the neighbouring properties.
- 4.5.9 However once the air source heat pumps were installed on-site, a number of noise complaints were made by residents within the complex. The siting of the pumps was changed in an attempt to ameliorate the noise and vibration situation experience by residents. This would normally be dealt with through a variation of condition application to the Council to amend the approved plans.
- 4.5.10 The case study exemplifies that residential amenity is an important consideration in the planning process. The GPDO is a useful tool but doesn’t address every scenario of development that may come forward which will require planning permission.
- 4.5.11 Aberdeen City Council has dealt with a number of Air Source Heat Pump applications on standalone dwellings and a block of flats which were all processed via a planning application without significant issues arising.

⁹ Section 38(6) of the Planning & Compulsory Purchase Act 2004.

Case Study - Bunhill Heat and Power, Islington, London

- 4.5.12 This development was progressed by the London Borough of Islington through a major planning application. The system features a district heating scheme that extends to approximately 1km and connects some 850 dwellings in three existing Council estates (Stafford Cripps Estate, St Luke's Estate and Redbrick Estate) and two leisure centres (Ironmonger Row Baths and Finsbury Leisure Centre). The energy centre is a 1.9 MWe gas CHP engine with a 115 m³ thermal store, extending to a height of some 14m.
- 4.5.13 Community involvement was integral to progressing the scheme and engagement with affected residents commenced at the pre-application stage and carried on throughout installation of the development. The project also sought to inform residents on energy security issues and the benefits of reducing energy costs and the more efficient distribution of heat. At the Planning Committee there were only public eight objections recorded against the scheme which can be considered low for a development of this undertaking.
- 4.5.14 Despite the extensive public consultation undertaken and the fact the application was being promoted by the London Borough of Islington when the planning application was taken to Planning Committee on the 7th April 2011, with a recommendation for approval, it was deferred by elected Members for the following reason:
- “to allow the applicant to consider other design options that would mitigate the visual impact of the site on the surrounding area. This should include consideration of other cladding materials and the possibility of sinking the building to lower the height to reflect that of the buildings to the east of the site”.*
- 4.5.15 Further work was undertaken to screen the thermal store and enclosure in timber cladding with large landscaping beds installed around the enclosure. The height of the thermal store was also reduced to be in keeping with the amenity of surrounding properties.
- 4.5.16 The revised scheme was granted planning permission at Planning Committee on the 14 June 2011.
- 4.5.17 The planning permission was subject to nine planning conditions; three of which required the submission of further information in order to discharge the condition. These were all dealt with under delegated powers in eight weeks, but were not resolved until November 2012.
- 4.5.18 The application site was not situated within a Conservation Area and there were no Listed Building adjoining the site. Nevertheless, visual and townscape effects and the overall design considerations were crucial to a successful planning application.
- 4.5.19 In determining the planning application, although planning officers were satisfied with the low carbon and heat benefits from the scheme, the Planning Committee Members considered that these factors did not outweigh the design considerations in the planning balance. This highlights the importance of amenity and design considerations with infrastructure developments in urban areas (which is in many cases a subjective judgment in terms of acceptability) and also the political element that plays a significant role (and risk) in the determination of any planning application.
- 4.5.20 The overall timeframes for securing the grant of planning permission were in excess of one year from commencement of the project.

Case Study - Keepmoat Development, City of Hull

- 4.5.21 In order to demonstrate a blanket planning application approach to developing a decentralised heating network we have highlighted a case in Hull where Keepmoat¹⁰ sought to develop an energy related scheme. This scheme involved the submission of six planning applications for external solid wall insulation of 743 properties; both social rental and private tenure¹¹. Whilst the level of supporting information with the planning applications was very limited, it was approved by the Council – Kingston upon Hull City Council.
- 4.5.22 We understand that individual residents were not consulted as part of the application process by the Applicant and there were objections to the level of consultation undertaken. It is understood that Keepmoat will approach the individual properties, offering them the opportunity to carry out home energy efficiency measures as set out in the approved scheme, including solid wall insulation. The implementation of insulation on one of the properties within the application site will render the consent extant, avoiding the need to submit further applications or renewals.
- 4.5.23 The Keepmoat application should not be regarded as best practice in relation to the complexity of the application or level of detail required for the the planning application approach. The planning application was not supported by City Council's Planning Officers, who recommended it be refused on the basis of the level of detail in the submission and that the materials proposed on the near and side elevations of the properties would introduce an alien feature to the predominantly brick built houses in the area. Insulation at the front of properties was to be internal works and therefore did not need planning permission. The officers also considered that the standard of design was not adequate and would be detrimental to the visual amenity of the area.
- 4.5.24 This Case Study does highlight the ability and benefit of the 'blanket' application in terms of the geographical area covered, which in this case was to provide owners and landlords of the properties within the application site, the opportunity to access grant funding to carry out the installation. As and when the owners or landlords wish to take up the consented works, one of the primary objectives of Keepmoat's approach was to enable them to undertake the works without the cost and time implications of having to submit separate planning applications.
- 4.5.25 The approval of the Keepmoat applications against Officer recommendation also demonstrates the uncertainty of the planning process and also the potential for political interference in the decision making process.
- 4.5.26 It is important to recognise that this Case Study is not a good example of the level of information that is normally required to accompany a planning application. The Officers in the Council acknowledged that if they were supporting the applications, the level of material and technical studies required to accompany the applications would have been required to be significantly greater than that originally submitted by Keepmoat.
- 4.5.27 The Keepmoat Case Study provides an example of a solution for securing consent for individual heating or larger scale networks, which fall outside the scope of the GPDO and which may be pursued at the 'whole street' or area based scales. For example the provision of external wall insulation or installation of air source heat pumps, which exceed 0.6 cubic metres in volume or which are within one metre of the boundary of a dwelling's curtilage. The Keepmoat approach could also be utilised for larger scale shared heat networks such as district heating or area based GSHPs.
- 4.5.28 Table 4.3 below sets out a summary of the strengths and weaknesses of the planning application approach.

¹⁰ A company involved in community regeneration and housing with a particular focus on public sector clients. The company built circa 2,000 homes in the UK in 2013.

¹¹ The works were part of a scheme to gain planning approval for insulation works to 181 Places for people properties. It included privately owned properties in order to offer an insulation service to householders in the Spring Bank area of Hull. The area mainly consists of Victorian terraced properties.

Table 4.3: Planning Applications – Strengths and Weaknesses

Strengths	Weaknesses
Certainty around the nature of development for both the LA and the developer / Applicant	Risk of refusal of planning permission but opportunity for planning appeal which increases cost and timescales
8 - 13 weeks for minor and major development (assumes not requiring EIA)	Political interference and uncertainty will be a risk factor
All encompassing consent through the granting of planning permission normally subject to a number of conditions	Need to discharge planning conditions attached to a grant of planning permission before development can commence
Specific to Applicant requirements and no need for Applicant to be owner of all land / property within the application boundary	Grants consent for precisely defined development - any changes would require additional permissions – less easy to deal with changes in technology
A 'blanket permission' provides the ability to draw down elements of the approved scheme over a longer period and this can be a benefit where there are different ownership / lease tenures involved	Relatively expensive process for complex applications and likely to be a requirement for supporting information such as detailed technical and possibly environmental reports. However, this information can also assist a swift determination.
Avoids multiple applications in sensitive locations (contrast to the LDO approach)	Potentially onerous for very large areas and multi tenure properties - contrast to LDO approach
Can include all elements of 'development' and can be used for an area based or 'whole street' approach	Inefficient in dealing with standard class development types if sought to be applied on a wide geographical basis
Public Consultation key to informing members of public	

4.6 Requirement for Environmental Impact Assessment

Introduction

- 4.6.1 As indicated above, where development requires an Environmental Impact Assessment (EIA), the ability to pursue consent through the GPDO will not be possible. The LDO route is not possible for 'Schedule 1' EIA development, or for 'Schedule 2' development in the absence of an Environmental Statement (ES) which is taken into consideration in the decision-making process. We have for completeness, set out the background to EIA and the process that needs to be followed.
- 4.6.2 European Community Directives 85/337/EC, as amended by 97/11/EC and 2011/92/EU requires developers to provide information on likely environmental effects for specific projects which – set out in an Environmental Statement (ES) – must be considered by a 'determining authority' before making a decision on a planning application. European Community Directive 2014/52/EU has recently entered into force and is to be transposed by Member States by 16 May 2017. The transposition process may impact on the roll-out of the SSH Programme. This should be monitored.
- 4.6.3 The Directives have been implemented in the UK by a series of Regulations implemented through the Town and Country Planning system. Most recently, the Town & Country Planning (Environmental Impact Assessment) Regulations 2011 which came in to force in England in August 2011 - hereafter referred to as 'the Regulations' - update earlier Regulations implemented in 1988 and 1999. There are similar provisions in Scotland.

4.6.4 The Regulations set out the statutory provisions in respect of the content of an ES and identify information reasonably required to assess the environmental effects of a development, together with minimum requirements for the inclusion of information within an ES.

EIA Screening

4.6.5 In determining both the requirement for an EIA and the content of an ES, reference must be made to the Regulations and Schedules 1 and 2.

4.6.6 The determining authority is required to 'screen' whether a proposed development project is of a type listed in Schedule 1 or Schedule 2 of the Regulations. Furthermore:

- if it is listed in Schedule 1, then an assessment is required in every case;
- if the project is listed in Schedule 2 and exceeds the applicable threshold and criteria, an assessment may be required.

4.6.7 The type of development and infrastructure proposed by the ETI is unlikely to trigger Schedule 1.

4.6.8 However, if a proposed development is listed in Schedule 2 and exceeds the relevant thresholds or criteria set out in the second column (sometimes referred to as 'exclusion thresholds and criteria') the proposal needs to be 'screened' by the determining authority to decide whether significant effects are likely by virtue of factors such as its nature, size or location and hence, whether an EIA is required.

4.6.9 Under Schedule 2 Part 3(a) 'Energy industry - Industrial installations for the production of electricity, steam and hot water' are likely to be triggered by the proposed SSH Programme developments. The relevant threshold for this type of development is 0.5 hectares as set out in Column 2 'Applicable Thresholds' and criteria of Schedule 2 Regulation 2(1).

4.6.10 For example, the current guidelines (Circular 02/99 'EIA') state that the *installation of oil pipelines, gas pipelines and long-distance aqueducts (including water and sewerage pipelines)*, is considered to have a major impact if the disruption to the surrounding ecosystems during construction. The guidelines state that EIA is more likely to be required for any pipeline over 5 km long. EIA is unlikely to be required for pipelines laid underneath a road, or for those installed entirely by means of tunnelling.

4.6.11 It would be prudent to submit an EIA Screening Request to a LPA as soon as sufficient site and scheme details are available.

EIA Scoping

4.6.12 Following acknowledgement of a requirement for EIA, the process of identifying the likely significant environmental effects of a proposed development requiring investigation and the 'environmental topic areas' to be included within an ES should be undertaken and informed by a number of means including:

- reference to Schedule 4 to the Regulations, 'Information to be included in an Environmental Statement' Part I and Part II;
- consideration of the site and its context;
- consideration of adopted Development Plan policies;
- consideration of emerging Local Development Framework policies;
- a review of the planning application and other history of the site and surroundings including in particular a review of the scope of any Environmental Statements for recent major developments in the wider locality;
- consultations with Council officers in respect of a provisional list of environmental topic areas, between technical consultants and officers of the Council, with future consultees to the planning application and with the general public and other interested parties; and

- a review of various existing technical reports and data from earlier investigations.

4.6.13 Through these means, the potentially significant environmental effects requiring investigation – and any not reasonably required to be assessed – will be provisionally identified. Although not necessarily required to be considered to the same level of detail and mindful that the emphasis of the Regulations is upon the ‘main’ or ‘significant’ effects to which a development is likely to give rise, those environmental topic areas determined through these activities to be the most likely to be the subject, or source, of significant effects are likely to be as follows, as set out in Figure 4.1:

Table 4.1: Aspects of the Environment & Environmental Topic Areas

Schedule 4, Part I(3) 'Aspects of the Environment'	Environmental Topic Areas
Material Assets	Built Heritage, Landscape & Visual Assessment
Climatic Factors	Microclimate – Wind
Climatic Factors	Microclimate – Sunlight, Daylight, Overshadowing, Light Pollution & Solar Glare
Soil	Ground Conditions & Contamination
Water	Water Resources, Drainage & Flood Risk
Population	Transport
Air	Air Quality
Population	Noise & Vibration
Material Assets	Archaeology
Population	Telecommunications
Population	Socio-economic Effects
Fauna / Flora	Ecology

Preparation of an Environmental Statement

4.6.14 Parts I and II of Schedule 4 to the Regulations set out the requirements as to the contents of Environmental Statements (ESs).

4.6.15 Part I – for the purposes of the definition in Regulation 2(1) of an ES – identifies the information referred to as being “reasonably required to assess the environmental effects of the development and which the applicant can, having regard in particular to current knowledge and methods of assessment, reasonably be required to compile” which includes:

“Part I

1. Description of the development, including in particular:

(a) a description of the physical characteristics of the whole development and the land use requirements during the construction and operational phases;

(b) a description of the main characteristics of the production processes, for instance nature and quantity of the materials used; &

(c) an estimate by type and quantity of expected residues and emissions resulting from the operation of the proposed development.

2. An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for the choice made, taking into account the environmental effects.

3. A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archeological heritage, landscape and the inter-relationship between the above factors.

4. *A description of the likely significant effects of the development on the environment which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development resulting from:

 - (a) *the existence of the development;*
 - (b) *the use of natural resources;*
 - (c) *the emission of pollutants, the creation of nuisances and the elimination of waste, and the description by the applicant or appellant of the forecasting methods used to assess the effects on the environment.**
5. *A description of the measures to prevent, reduce and where possible offset any significant adverse effects on the environment.*
6. *A non-technical summary of the information provided under Paragraphs 1-5 of this Part.*
7. *An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the applicant or appellant in compiling the required information”.*

4.6.16 Not all areas of the environment identified in Part I of Schedule 4 will necessarily require consideration in detail in a particular ES. Regulation 2(1) requires under the definition on an ES that a Statement “includes at least the information referred to in Part II of Schedule 4” which is:

“Part II:

1. *A description of the development comprising information on the site, design and size of the development.*
2. *A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects.*
3. *The data required to identify and assess the main effects which the development is likely to have on the environment.*
4. *An outline of the main alternatives studied by the applicant or appellant and an indication of the main reasons for the choice made, taking into account the environmental effects.*
5. *A non-technical summary of the information provided under paragraphs 1-4 of this Part”.*

Conclusions on EIA

4.6.17 The requirement for EIA is likely to have significant timing and financial implications in the preparation of a planning application and needs to be fully considered at the outset on any project.

4.6.18 In our discussions with various Councils as reported in Volume 1, the need for EIA for the proposed development associated with decentralised heat and energy projects was thought to be unlikely, however the need to carry out a screening exercise to determine the requirement for EIA was considered to be important.

4.6.19 At this stage we cannot be precise about the types of development that would engage the thresholds in the Regulations such that they would be classified as ‘EIA development’ however it is clear from the Regulations that under Schedule 2 Part 3(a) ‘Energy industry - Industrial installations for the production of electricity, steam and hot water’ are likely to be triggered by the proposed SSH Programme developments.

4.6.20 Developments would need to be considered in terms of whether a proposals is likely to have significant effects on the environment and therefore require EIA. Three broad criteria need to be considered as follows:

- the characteristics of the development (e.g. its size, use of natural resources, quantities of pollution and waste generated);

- the environmental sensitivity of the location; &
- the characteristics of potential impact (e.g. its magnitude and duration).

4.6.21 Following such an appraisal the information can inform the screening and scoping actions as described above.

4.6.22 As noted above, European Community Directive 2014/52/EU has recently entered into force and is to be transposed by Member States by 16 May 2017. The transposition process may impact on the roll-out of the SSH Programme. We recommend that this should be monitored.

4.7 Conclusions on Consenting Options

Consenting Approach

4.7.1 The development of a decentralised energy system would normally fall within the definition of development and therefore planning permission would be required.

4.7.2 Having regard to the consulting regime within the UK, there are three potential mechanisms for delivery of consent for development that is likely to come forward under the SSH Programme. This includes:-

- Planning Applications;
- Application of the General Permitted Development Order;
- Local Development Orders.

4.7.3 It is considered that the planning system is a potential barrier to the economic delivery and wide deployment of SSH Programme related development. The submission of planning applications has the potential to be a complex, costly and time consuming process, but does offer some benefits from the 'area based' permission that they would give rise to.

4.7.4 The option of pursuing changes to the GPDO system in the UK, to allow specific classes of decentralised energy infrastructure, would provide a UK wide system, which would allow the development of new and retrospective heat networks.

4.7.5 The Government indicated in the 2014 Budget that consideration will be given to further changes to the GPDO. It is recommended that an early dialogue with the Government is entered into to facilitate changes to the GPDO. In order to be effective, it will be necessary to establish the type of development / equipment (i.e. reasonable standardisation) which could be used, to ensure effectiveness of the GPDO changes and to avoid ambiguity.

4.7.6 In the event that changes to the GPDO are not possible, it is recommended that consideration be given to the preparation of LDOs, similar to that approved in the London Borough of Newham. Such an approach would have the advantage of encouraging standardised materials and methods.

4.7.7 The timescale for preparing LDOs needs to be fully recognised, this could take between 12-24 months, depending on the constraints in the area. The experience of LA officers expressed during the engagement meetings also needs to be recognised, which reflected concerns regarding the efficacy of LDOs given the constraints of the mechanism and the costs and timescales for adoption. Furthermore, where an area is heavily constrained by reason of its environmental or heritage assets, development might not be permitted under the LDO and therefore may require the submission of a planning application.

4.7.8 Situations will vary and a 'hybrid' approach is a likely outcome. Bearing in mind the evidence gathered of practical issues surrounding the adoption of LDOs, the most likely outcome is a hybrid approach involving changes to the GPDO to facilitate the installation of infrastructure by homeowners and Local Authorities and use of planning applications, given the nature of likely development required. The choice will ultimately depend upon locational circumstances, but there are clearly options.

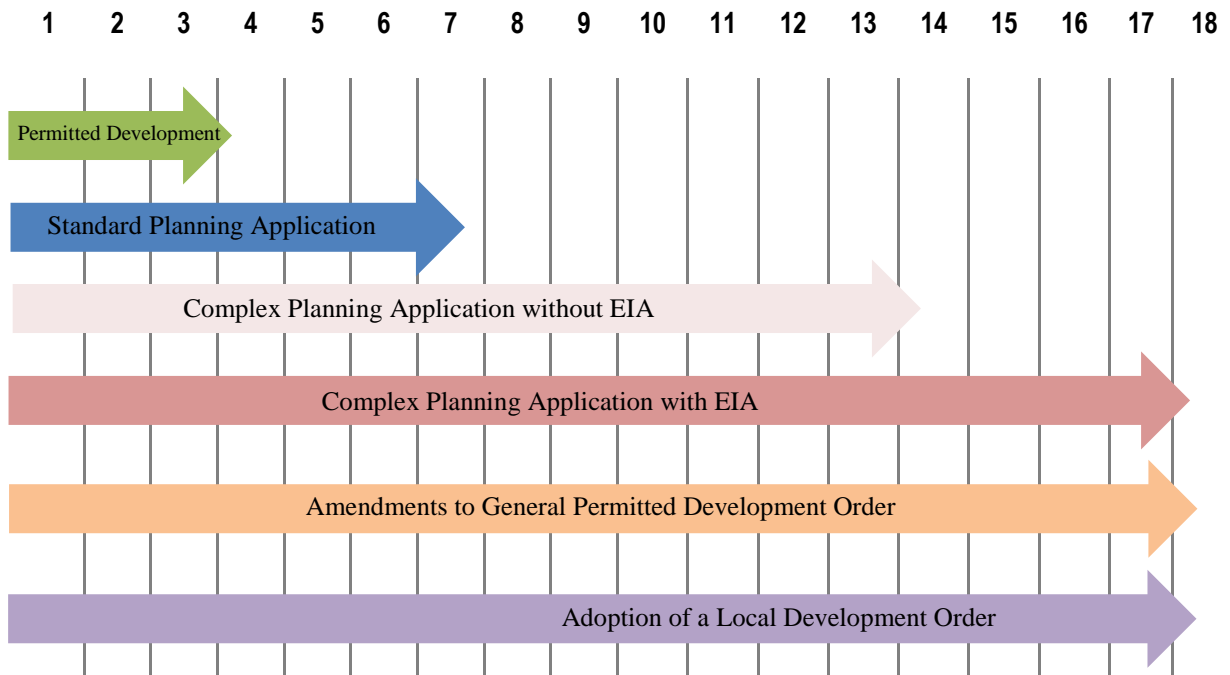
4.7.9 The potential implications of EIA requirements should also not be underestimated. For example, should certain aspects of a development fall outwith the scope of an LDO and require the submission of a planning application,

all aspects of the development scheme (including those permitted pursuant to the LDO) would need to be properly assessed. The impact of the EIA requirements will vary in individual situations.

4.8 Indicative Programme for Consenting Options

4.8.1 In Figure 4.1 below we have set out the indicative timescales in relation to consenting options. We follow this with some commentary on the factors which are likely to have an influence on timescales.

Figure 4.1: Indicative Timeframes in Months



General Permitted Development Orders

4.8.2 Some proposals may not constitute ‘development’ and it is possible to make certain types of minor physical changes to a dwelling house or block of flats without needing to apply for planning permission. As outlined above, these in the context of the SSH Programme, could include for example, measures such as air and ground source heat pumps and external wall insulation. In such circumstances the proposals may be considered ‘permitted development’ under the provisions of the GPDO.

4.8.3 If there is ambiguity over whether a proposed development is ‘permitted development’ there are a number of options. It may, for instance, be possible to alter the plans to ensure they meet the ‘permitted development’ parameters and conditions. Alternatively it is possible to apply to a planning authority for a Lawful Development Certificate. The planning authority should issue a Lawful Development Certificate within 8 weeks.

Standard Planning Application

4.8.4 Many different types of development require planning permission. Most applications begin with pre-application discussions with planning officials in the LA. This is an important step for the LAs and Applicants as it provides an opportunity to comment and shape the proposals and helps ensure that the application is supported by the required documentation so that there is a minimum delay in processing and determining the planning application.

4.8.5 On receipt of a planning application and the appropriate fee, the LA will acknowledge and begin public notification and consultation procedures which last for 21 days. This involves local elected member of the community affected by the proposals and a broad range of statutory consultees.

- 4.8.6 Most straight forward applications are able to be dealt with by an LA under delegated powers, negating the need to report the application to planning committee. The statutory timeframe for determining a standard minor application is 8 weeks. At the present time, some 68% of minor planning applications in England are determined within the 8 week period.
- 4.8.7 A decision notice will be issued by the LA following determination of the application and planning permission granted, usually subject to a number of conditions, which would need to be discharged before development would commence. The whole process, from pre-application discussions to the granting of planning permission would normally be expected to take approximately 6 months, assuming there is no, refusal and subsequent planning Appeal. In the event of a refusal of planning permission and a subsequent planning Appeal, the timescale could extend to up to a year or possibly longer.

Complex Planning Application without EIA

- 4.8.8 Complex applications, taken as major planning applications, will generally require more detailed negotiations between the LA and an Applicant and often result in detailed pre-application meetings. Public consultation and engagement with the affected local community is also usually considered crucial to success of these types of proposal, in order to take on board their concerns and inform the ultimate design.
- 4.8.9 The planning officer will prepare a report on the application, undertake discussions and negotiations with the Applicant and other statutory consultees and request further information or amendments to the proposals if required. The report is usually considered at Planning Committee, with the ultimate decision-makers being locally elected representatives.
- 4.8.10 LAs generally deal with these more complex and major proposals with 13 weeks with the standard allowance for 21 days of statutory consultation. At the present time, some 76% of major planning applications in England are determined within the 13 week period.
- 4.8.11 High profile applications can occasionally be subject to Judicial Review where an Appellant can seek “statutory review” in the High Court that a decision issued by a LA was unlawful; on the basis that the decision was not within their powers or procedural requirements were not met. This needs to be lodged within 6 weeks of the determination of the application and issue of the decision notice. The decision may only be quashed or upheld.
- 4.8.12 Planning obligations in the form of a S106 Agreement may be required by the LA in order to make the development acceptable in planning terms.
- 4.8.13 The whole process, from pre-application discussions to the granting of planning permission would normally be expected to take approximately 9-12 months, assuming there is no, refusal and subsequent planning Appeal. In the event of a refusal of planning permission and a subsequent planning Appeal, the timescale could extend to up to 18 months or possibly longer.

Complex Planning Application with EIA

- 4.8.14 As explained above, under the EIA Regulations (2011) certain major projects of more than local importance may be subject to EIA and would require preparation of an ES, which would need to accompany a planning application.
- 4.8.15 As noted above in determining whether a proposed development is likely to have significant effects on the environment and therefore require EIA, three broad criteria which should be considered are as follows:
- the characteristics of the development (e.g. its size, use of natural resources, quantities of pollution and waste generated);
 - the environmental sensitivity of the location; &
 - the characteristics of potential impact (e.g. its magnitude and duration).

- 4.8.16 If there is uncertainty surrounding the requirement for undertaking an EIA, a 'Screening Opinion' may be requested from the LA. The preparation of an ES generally takes approximately 6 months and involves a wide variety of technical consultants.
- 4.8.17 The LA statutory timeframes for determination of an application with EIA are 16 weeks and applications are of a size and scale that they are always reported to Planning Committee.
- 4.8.18 The whole process, from pre-application discussions and Screening and Scoping to the granting of planning permission would normally be expected to take approximately 12-18 months, assuming there is no, refusal and subsequent planning Appeal. In the event of a refusal of planning permission and a subsequent planning Appeal, the timescale could extend to up to 18 months to two years, or possibly longer.

Amendments to General Permitted Development Order

- 4.8.19 As explained above, the Town and Country Planning (General Permitted Development) Order 1995 (the "GPDO 1995") is a Statutory Instrument, applying in England and Wales, that grants planning permission for certain types of development (such development is then referred to as 'permitted development').
- 4.8.20 Amendments to the GPDO would be through adoption of a Statutory Instrument prepared by the Department for Communities and Local Government (DCLG) and would require to be laid before Parliament.
- 4.8.21 Any amendments need to be subject to formal consultation run by DCLG for a period of 6 weeks with any comments or concerns formally considered. Changes would need to be formally adopted by Parliament which follows normal process. Government in England, Scotland and Wales quite often amends the GPDO to take account of changing economic and planning circumstances. Recent examples include changes in relation to micro-generation equipment and change of use provisions from office to residential use. In terms of overall timescales these are not standard, but a reasonable estimate would be in the range of one year to 18 months.

Adoption of a Local Development Order

- 4.8.22 Local Development Orders are made by LA and give a grant of planning permission to specific types of development within a defined area. They streamline the planning process by removing the need for developers to make a planning application to a LA. They create certainty and save time and money for those involved in the planning process. A LDO can cover a geographical area of any size; however, LDOs cannot cross local authority boundaries.
- 4.8.23 The procedures for making a LDO are set out in sections 61A to 61D and Schedule 4A of the Town and Country Planning Act 1990, as amended and articles 34 and 37 of the Town and Country Planning (Development Management Procedure) Order 2010, as amended.
- 4.8.24 The Growth and Infrastructure Act 2013 simplified the LDO process by removing the requirement for the local planning authority to submit the order to the Secretary of State before adoption for consideration of whether to intervene. They are a legal document and will therefore require legal drafting and input.
- 4.8.25 The length of time for adoption will vary considerably, depending on various circumstances, but likely timeframes would be in the region of 12-18 months.

5 Conclusions & Recommendations

5.1 Introduction

5.1.1 In this Chapter we set out our conclusions and recommendations.

5.2 Conclusions and Recommendations

5.2.1 The works and equipment associated with a decentralised energy and heat system would normally fall within the definition of development under Section 55 of the 1990 Act and therefore would require planning permission.

5.2.2 It is considered that aspects of the current planning system in the UK is a potential barrier to the economic and wide deployment and scaling up of SSH Programme related development. The submission of planning applications has the potential to be a complex, costly and relatively time consuming process, but as noted above, does offer some benefits. There may be scope to amend the respective GPDOs in England, Wales and Scotland for thematic development types that could come forward under the SSH Programme. We also consider there remains a role for LDO.

The General Procedure Development Order

5.2.3 The existing GPDO in the UK allows certain micro-generation proposals on domestic properties, however this power is limited to small scale generation of electricity or the production of heat and is unlikely to provide a sufficient consenting approach many of the proposals which are likely to come forward as part of the SSH Programme, unless they are provided by a statutory undertaker. Therefore changes to the current GPDO system would be required.

5.2.4 The option of pursuing changes to the GPDO system in the UK, to allow specific classes of decentralised energy infrastructure, should be considered, expanding the provisions within Part 40 in respect of micro-generation equipment. This would provide a UK wide system which would allow the development of new and retrospective / retrofit heat networks.

5.2.5 The Government indicated in the 2014 Budget that consideration will be given to further changes to the GPDO. It is recommended that there is dialogue with the relevant Government Departments at the appropriate time to facilitate changes to the GPDO. In order to be effective it will be necessary to establish the type / theme of infrastructure specification parameters which are likely to be used to ensure effectiveness of the GPDO changes and to avoid ambiguity.

5.2.6 This initiative will necessarily be subject to a national consultation exercise with representations and submissions invited from relevant stakeholders and businesses. This is normal practice. This process could managed and progressed by the DCLG and ultimately would require legislative changes to be agreed in Parliament. This process may take in excess of 12 months and would largely be outside of the control of ETI.

5.2.7 Alterations to the GPDO would hopefully remove a considerable planning barrier to implementation of development types that could come forward under the SSH Programme and hopefully provide a 'kick-start' and incentive for the commercial scale deployment of smart systems and heat technologies, running in parallel with strengthened national planning policy and guidance. We comments further with regard to planning policy and guidance below.

5.2.8 **Recommendation 1:** In considering the consenting procedure to be followed, it is essential that the type of equipment / infrastructure, as well as a description of the nature of development (the range of its physical parameters) that will potentially be used is established (i.e. some form of standardisation): this will be essential to ensure the effectiveness of securing permitted development rights for development through the GPDO or by way of application of an LDO.

5.2.9 **Recommendation 2:** Where individual energy systems do not benefit from the provisions of the current GPDO provisions in England, Wales and Scotland, changes should be sought which would further allow minor works associated with the implementation of decentralised energy and heat systems. It is recommended that the approach to potential changes be discussed with DCLG and DECC as a first stage, and in turn with the Devolved Administrations.

Local Development Orders

5.2.10 In the event that changes to the respective GPDOs are not possible or would not be considered effective, the preparation of LDOs should be encouraged and considered in England and Wales (there is no provision for LDOs under statute in Scotland). The approach adopted should be similar to that approved in the example of the London Borough of Newham. Such an approach would not only remove planning consenting barriers, but would also help to encourage standardised materials and methods.

5.2.11 The Newham LDO example demonstrates that the LDO option can be effective and can respond to local circumstances. However, the Local Authority engagement undertaken as part of this commission indicates that some Councils are generally sceptical as to whether the LDO route is viable and there is currently a poor take up of LDOs in the UK relating to decentralised heat and energy schemes. Nevertheless, in certain circumstances they remain a tool to be utilised for large scale area based consenting approaches. LDOs could also be used in the form of 'derogations' in relation to pilot type development projects that could come forward under the SSH Programme.

5.2.12 **Recommendation 3:** Where changes to the GPDO are not possible, or the scope of the permitted development Class would exclude the development proposed, the LDO procedure should be considered. Working in conjunction with the relevant LPA, consideration should be given to the preparation of a LDO for specific area based schemes.

5.2.13 Greater dissemination of good practice of LDO preparation may also help persuade Local Authorities of the efficacy of the LDO route / mechanism and accelerate wider deployment of this consenting option in England and Wales.

5.2.14 The timescale for preparing LDOs needs to be recognised, this could take between 12-24 months, depending on the constraints in the relevant area. LDOs would need to be progressed by a Local Authority and be subject to consultation and ratification by elected Members: this would largely be outside of the control of ETI.

5.2.15 Where a geographical area is heavily constrained by reason of its environmental or heritage assets, a proposed development might not be permitted under the LDO and therefore may require the submission of a planning application.

Planning Applications

5.2.16 Planning applications remain an effective area based consenting tool, in particular in circumstances where the GPDO provisions would not apply and where there is no LDO. Furthermore it provides a comprehensive approach to ensuring that all proposed development, as specified in the planning application is granted planning permission, subject to conditions.

5.2.17 **Recommendation 4:** Where a decentralised energy and / or heat system is proposed in an area which is considered to be environmentally sensitive and has the potential to impact on natural heritage or cultural heritage assets, or where there is no LDO coverage, it is recommended that a planning application approach is pursued.

Planning Strategy

5.2.18 **Recommendation 5:** Flexibility in the approach to consenting will be integral to the timely and efficient deployment of the demonstrator project(s) which could come forward under the SSH Programme. A detailed planning strategy should be developed once the site specific locations / areas are known, and once the broad description and nature of likely proposed development for the area / location is known.

5.2.19 Ultimately, depending on the unique physical and environmental circumstances within the respective Local Authority areas and the nature of the proposed development, it is likely that a hybrid approach would need to be deployed. The nature of any hybrid approach able to be deployed will be affected by other regulatory regimes, such as the EIA Regulations and will need to be assessed in each individual situation. The experience of an individual Local Authority is another factor for consideration: for example, in the Local Authority engagement meeting sessions (as reported in Volume 1) a number of officers expressed concerns about the effectiveness of an LDO, given the limitations and the timeframes and costs associated with adoption.

5.3 Planning Policy, Forward Planning and Plan Making

5.3.1 A sound planning policy and guidance basis for the deployment of decentralised energy infrastructure is considered to be of primary importance in supporting the use and wider deployment of LDOs and in providing a facilitative policy context for planning applications and for the preparation of Development Plans. The deployment of decentralised energy infrastructure may raise issues of impact on viability for refurbishment, regeneration and housing developments (new build and retrofit). This will require resolution between potentially competing objectives such as bringing forward necessary housing supply and the wider deployment of low carbon and decentralised energy. Guidance on the weight to be accorded to these competing objectives would enable a more strategic assessment of the viability of deployment in a particular situation. We consider that the ETI should be making representations in the planning policy consultation process of Development Plan preparation where this may be feasible. In addition, steps could be taken at the national level to amend national planning policy and guidance, which would be more effective and would lead to a standard approach throughout England and also potentially in the Devolved Administrations. We have set out our recommendations in terms of planning policy and guidance and development management activity below.

Planning Policy: Development Management

5.3.2 A key observation arising from our Local Authority engagement exercise as reported in Volume 1, is that there is a significant difference in the scope and nature of Development Plan policy between the specific and enabling London Plan policies towards retrofit and decentralised energy networks and those of the remaining LAs in England and Wales.

- 5.3.3 The strengthening in recent years of the ‘top down’ planning of the UK energy system through documents such as the National Infrastructure Plan (HMT 2013) and the National Policy Statements for Energy (EN-1 and EN-3) (DECC, 2011) provide, together with the national planning policy position as expressed in the National Planning Policy Framework (NPPF, 2012) and related online Planning Practice Guidance (PPG, March 2014) an opportunity to further strengthen the policy context for deployment and development district heating and cooling networks, as a means to achieve low carbon sustainable and low cost energy.
- 5.3.4 We consider that establishing a stronger supportive national planning policy framework will be essential for the successful wider deployment of decentralised energy networks. Over the long term (by 2050) district heating is expected by Government to deliver a major proportion of heating to residential and commercial properties. Having a supportive and facilitative policy framework for DHNs as well as other infrastructure that might come forward under the SSH Programme such as ground and air source heat pumps at scale, will be essential to ensure this scaling up of deployment.
- 5.3.5 In terms of planning policy for use in development management, the results of our engagement show that it currently exists on a spectrum from the weak simple encouragement for developers to consider decentralised energy and heat networks as part of development proposals, to the much stronger compulsion and mandatory obligation, as set out for example in the London Plan policies.
- 5.3.6 It is clear from the review of current national planning policy and guidance (specifically the NPPF and the PPG) that the potential for urban low carbon heat and cooling networks is recognised by policy makers, however it is also clear that the specific wording of policy could be strengthened to ensure more compulsion and obligation is secured, rather than simply encouragement, especially in Development Plans. Such changes would have implications both for forward ‘plan making’ and also for ‘development management’.
- 5.3.7 It is also recognised through the engagement consultation undertaken that the nature of urban energy and decentralised solutions is particular to individual urban areas and very much tied to local contexts and also reflects the level of political enthusiasm and specialism of planning officers within particular organisations and authorities.
- 5.3.8 A number of LAs throughout the engagement meetings identified a need for stronger national planning policies. There was generally perceived to be a weakness in the wording currently in the NPPF and in the online PPG.
- 5.3.9 Whilst there was generally widespread enthusiasm from all of LAs, many planning officers consulted took the view that their practice was hampered by weak planning policy that did not require compulsion for developers to act. There were also a range of commercial and viability considerations that need to be considered as part of development, which planning officials traditionally are not skilled at assessing but which it is acknowledged, will remain material considerations. Some LAs also expressed the sentiment that adding to the burden of a developer with DHN or related infrastructure obligations could potentially stall development in locations outside of London and act as a brake on investment.
- 5.3.10 The preference would be for strong policy to be reflected in Development Plans to ensure that policies secure maximum compliance from developers. This can only occur if in turn, there is a strong policy position at the national level.
- 5.3.11 As noted above, the strength of policy will depend on the resolution between potentially competing objectives of bringing forward necessary development (e.g. housing supply) and the wider deployment of low carbon and decentralised energy systems. The deployment of decentralised energy infrastructure could raise issues of impact on viability for housing developments and guidance on the weight to be accorded to these competing objectives will determine the level of compulsion and obligation secured by policy and enable a more strategic assessment of the viability of deployment in a particular situation.
- 5.3.12 Policies could require developers to connect to an existing heat network unless it could not be feasible or viable to do so, and in such circumstances the policy could require an applicant to make provision for developments to connect in the future.

5.3.13 If there are existing networks within an urban area, then planning policy could require connections to be made for new development, or in terms of redevelopment of existing property (i.e. retro-fitting). However, in urban areas where there is no network, but where there is potential in the future, then the focus of policy upon relation should be aimed at ‘future proofing’ development to enable future connections.

5.3.14 **Recommendation 6:** Insofar as planning policy is a ‘barrier’ to the deployment of development and infrastructure that could come forward under the SSH Programme, we consider that this could be addressed through providing appropriate and strengthened development management planning policy and guidance through existing policy mechanisms, such as the recently introduced online Planning Practice Guidance. Therefore, we consider that support from central Government to both alter the planning policy provisions and provide guidance on the resolution of objectives competing with deployment could play a major role in accelerating and widening deployment of the SSH Programme throughout the UK. In England, if the NPPF is to be amended in the future, then this would provide an appropriate medium however the nature of the current online Planning Practice Guidance¹² provides a practical approach and may present an earlier opportunity to introduce policy change.

Planning Policy: Forward Planning / Plan Making

5.3.15 Changes to planning policy should also be considered in terms of forward planning in relation to the preparation of statutory Development Plans and Supplementary Planning Documents (SPDs).

5.3.16 **Recommendation 7:** We consider that there is also an opportunity for statutory Development Plans to identify parts of urban areas / settlements suitable for decentralised energy and related infrastructure and this could be considered in the form of zonings or ‘heat network / smart system opportunity areas’. The use of heat mapping (including through the potential application of EnergyPath™) could provide an evidential basis for such zonings, underpinning plan allocations / policies. Consideration should also be given to policy to support requirements in planning obligations to facilitate on-site deployment of district heating / smart system infrastructure.

5.4 Next Steps

- 5.4.1 The recommendations that we have set out above lead to a number of next step actions. One of these relates to discussing the findings with officials in DCLG and DECC. We consider this would be a prudent step to ensure that there is likely to be official support at a senior level in Government for the recommendations and subsequent actions which could follow from this Report and which are aimed at a successful and wider deployment of the SSH Programme throughout the UK, in parallel with the development of the EnergyPath™ software model.
- 5.4.2 Consideration should be given to the EnergyPath™ software model when it becomes available in terms of its urban ‘planning’ interface with regard to how its use could be optimised with regard to plan making and decision making.
- 5.4.3 Once demonstrator EnergyPath™ scenarios are being considered, the optimum consenting strategy for SSH programme infrastructure should be scoped out based on the model’s outputs / findings. At that point, actions and related budget costs for consenting procedures can also be refined.

¹² Online national level Planning Guidance is also available in Scotland which is frequently updated and amended: this also provides a practical approach for the introduction of amended planning guidance at the national level.

5.4.4 Further consideration should be given to scoping out the actions associated with taking forward the above recommendations.

6 Appendix 1: National Energy & Planning Policy

6.1 Introduction

6.1.1 In this Appendix we set out a review of national energy and heat policy, as well as related national planning policy and guidance, with reference to the UK, England, Wales and Scotland.

6.2 UK Energy and Heat Policy

The UK Renewable Energy Roadmap (2011)

6.2.1 The Roadmap was published by the Department of Energy and Climate Change (DECC) in 2011 and it has been updated in 2012 and 2013. Whilst the document is principally concerned with renewable energy, it does make a number of cross references to heat technologies.

6.2.2 The Update of November 2013 in particular, has a detailed section on the topic of renewable heat. At paragraph 196, the document provides a strategic overview of low carbon heat and states that “*decarbonising heat remains a key long term priority for Government*”. It makes a cross reference to various DECC documents (specifically the ‘Future of Heating Reports’) which we refer to below.

6.2.3 The document makes clear that although the scope of the Update goes beyond the contribution of heat to the 2020 renewables target for the UK¹³, many of the issues raised are relevant to renewable heating.

6.2.4 Paragraph 198 confirms that the Government remains committed to delivering a significant contribution to the 2020 target for renewable energy from renewable heat. The document makes reference to heat consumption updates and refers to the Government’s approach to incentivising deployment, with specific reference to the Renewable Heat Incentive (RHI).

6.2.5 Reference is made in some detail to biomass heat and energy from waste combined heat and power (CHP), and there is specific reference to the approach to renewable heat in the devolved administrations in the UK. In the sections below we further expand on the policy provisions in the relevant administrations.

¹³ The document sets out the means by which the UK can meet the legally binding target of 15% of energy consumption from renewable sources by 2020.

The Future of Heating: A Strategic Framework for Low Carbon Heat (2012)

- 6.2.6 The document asks a series of questions which were intended to drive engagement with the heat industry, its consumers and other stakeholders. In the Report, DECC committed to publishing a further document containing a range of policy proposals for decarbonising heat within 12 months.
- 6.2.7 The Report makes a major point about the amount of fossil fuels being used to generate heat in the UK and it sets out three ways in which it is considered the country could supply low carbon heat mainly:-
- By replacing existing building level heating systems with low carbon alternatives;
 - By changing the content of gas in the existing gas grid; and
 - By constructing heat networks connected to low carbon sources.
- 6.2.8 There is reference to the 'national heat map' and the Government sets out its view on the technical potential in the UK in terms of heat networks playing a significant role in the UK energy mix.
- 6.2.9 Of particular note for the JLL scope being addressed in this current Report to the ETI, the DECC Report set out information on the conditions for more deployment of heat networks in the UK. A key part of the approach was recognition of the role of Local Authorities. Paragraph 3.28 of the Report states that *"evidence from existing heat networks in the UK show that local authorities have a pivotal role in enabling the development, deployment and expansion of heat networks"*.
- 6.2.10 The reasoning for this relates in part to the 'anchor loads' which can be identified in terms of public buildings and social housing which can give a steady source of heat demand and long term confidence in demand for investors and in providing co-ordination and local knowledge, to what can be complex arrangements.
- 6.2.11 It adds that *"the role of local authorities is both strategic and specific to projects within their area. Through heat mapping and energy planning and in line with emerging planning policies, local authorities should identify opportunities where energy can be supplied from decentralised, renewable, or low carbon energy supply systems and for co-locating potential heat customers and suppliers"*.
- 6.2.12 Paragraph 3.29 identifies that at a specific project level, Local Authorities have an important role and they can provide a 'broker role' and help secure local sources of heat demand for projects. It identifies that they can also *"provide planning support and guidance for projects and in their capacity as Highways Authorities, facilitate access to install necessary infrastructure and assist in the co-ordination with other utilities"*.
- 6.2.13 The Report adds that the Government is committed to putting in place the right framework to support Local Authorities in continuing work that many have already begun to facilitate heat networks.
- 6.2.14 As we explain in our recommendations in Volume 1, the strengthening of the planning policy framework in terms of heat networks and related infrastructure will make, in our view, a positive and beneficial contribution to providing the 'right framework' and can increase the capacity of support Local Authorities in this role, which the Government sees as "pivotal".

The Future of Heating: Meeting the Challenge (2013)

- 6.2.15 This Report followed on from the 'Strategic Framework for Low Carbon Heat' published in March 2012, and is referred to above. As the Government gave notice of in the previous 2012 Report, DECC's intention was to set out new policy proposals in relation to low carbon heat. This follow up Report deals with four different aspects of what the Government terms the 'heat challenge' namely industrial heat, networked heat, heating and buildings as well as grid and infrastructure.
- 6.2.16 In terms of heat networks, the Report sets out a summary of the current situation, and refers to the existing supply of heat networks and gives typical examples such as those found on University Campuses, in new inner city mixed commercial and residential developments, and in high rise flats. It adds at paragraph 10 of the Executive Summary that:-

“the Government believes there is great potential to develop networks so that they can play a part in the move to low carbon heating”. There is acknowledgement that a heat network is itself only a method of distribution and the carbon intensity of the heat depends on the source of the heat in the pipework.

- 6.2.17 There is also acknowledgement that heat networks can be used to provide cooling alongside heating and there is reference to the growing trend in the commercial property sector which has increasingly prioritised the need for cooling in offices and retail units. There is recognition that this demand is likely to increase further with more IT equipment in buildings, and the anticipated effects of climate change itself.
- 6.2.18 The Report addresses barriers required to be overcome, however these relate principally to financing and problems with reaching commercialisation and practical issues around identifying and implementing appropriate contract mechanisms, as well as issues of consumer acceptability.
- 6.2.19 In terms of ‘next steps’, the Government sets out that these include DECC supporting Local Authorities and developing heat networks by establishing a Heat Networks Delivery Unit (HNDU) within the department that would work closely with project teams in individual Authorities.
- 6.2.20 Paragraph 2.56 of the Report makes reference to the ‘national heat map’ and it explains that DECC has developed a heat map for England, which helps to identify areas of high heat demand and potential sources of heat supply. It adds that the current heat map shows total heat demand for public, commercial, industrial and residential buildings. It also shows CHP installations and thermal power station locations.
- 6.2.21 Paragraph 2.57 explains that Local Planning Authorities (LPAs) will *“shortly be able to obtain the data for their areas to enable them to understand better local heat supply and demand. This will assist authorities in developing a local heat strategy, enabling them to develop strategic energy plans”.*
- 6.2.22 On page 60 of the document there is reference to ‘supporting the longer term development of the heat network sector’. Paragraph 2.80 explains that where there is reference to ‘barriers’, a number of longer term institutional challenges to the wider deployment of heat networks are outlined. In this regard DECC makes reference to taking forward a number of *“areas of work to overcome these barriers”.*
- 6.2.23 Two of these barriers are of particular relevance to the JLL current scope of work. The first relates to ‘access and connection rights’. Paragraph 2.85 explains that DECC intends to investigate *“what access rights heat network providers have in other EU member states, including whether they have statutory undertaker powers to assess whether there are any lessons that could be applicable to England and Wales in the future”.*
- 6.2.24 It adds that statutory powers similar to those available to electricity and gas utilities could make it easier for developers and operators to gain access to land to build and maintain their networks, and to gain access to premises of consumers in connection with their supply of heat.
- 6.2.25 Paragraph 2.87 makes reference to the potential growth of networks through inter-connection between networks and the introduction of new heat sources to expanding heating networks, as well as new heat loads. It recognises that as utility infrastructure in the form of physical networks is a monopoly asset, it is subject to regulation to enable connections to take place where the capacity is available. There is recognition that the Government does not see the need for the introduction of such regulation for heat networks at this stage.
- 6.2.26 The second topic of particular relevance is that entitled ‘use of planning powers to support heat network development’. Paragraph 2.98 explains that in DECC’s initial consultation with Local Authorities, the Authorities:
- “have not highlighted planning powers as a key barrier to the development of heat networks. There does however appear to be a wide difference in the application of existing powers. DECC will consult with local authorities to understand better if and how they have incorporated heat network feasibility studies into their local area plans. Once the picture is clearer, DECC can establish whether there is a need to help local authorities share good practice”.*

- 6.2.27 Paragraph 2.90 also states that the Government will respond to the review of Planning Practice Guidance (PPG) being then led by Lord Taylor. It states that in streamlining PPG to help make the planning system swifter and more accessible, *“the Government will consider the need for practice guidance to support the implementation of national planning policy and low carbon and renewable heat networks.”*
- 6.2.28 Since the publication of the ‘Meeting the Challenge’ Report, the Government has now taken on board the recommendations of the Taylor Review and PPG was launched as a final online resource by the Department of Communities and Local Government (DCLG) in March 2014. Further reference to this is made below with regard to national planning policy and guidance in England. This is an important aspect of planning policy and is also referred to in our overall recommendations to the ETI, set out in Chapter 5 below.
- 6.2.29 A further topic in terms of a ‘barrier’ is referred to as ‘the development of technical standards’. Paragraph 2.91 states that DECC intends to work with stakeholders across the heat network industry to establish a process for agreeing industry led standards. It adds *“there is a case for producing technical standards on the design, installation and maintenance of heat networks”*.

The Annual Energy Statement (2013)

- 6.2.30 The UK Government published the Annual Energy Statement in October 2013. The Statement provides an update on the progress being made in terms of a shift to a low carbon economy and makes some specific references to heat.
- 6.2.31 The document at paragraph 3.36 makes the point that the heating sector is contributing to the UK renewable energy target. Heat infrastructure is addressed at paragraph 3.61 *et seq.* The point is made that energy for heating is the single largest energy use in the UK: it is explained that nearly half (47%) of the final energy consumed in the UK in 2012 was used for heat. This relates to primarily space and hot water heating and domestic, commercial and industrial buildings and heat for industrial processes.
- 6.2.32 Additionally, the point is made that fossil fuels remain the dominant source of energy for heating (in particular, natural gas) therefore, security of heat supply in the short to medium term, coupled with the need to decarbonise this sector over the longer term to meet climate change targets, remain important priorities for the Government.
- 6.2.33 The Statement makes cross references to the ‘Future of Heating’ reports produced by DECC in 2012 and 2013 and as referred to above.
- 6.2.34 Paragraph 3.64 states that heat networks will be an important part of a low carbon future for the UK, providing heat to dense urban areas. There is reference to the Heat Networks Delivery Unit which has been established to support Local Authorities to share best practice and to *“identify and tackle barriers to deliver a step change in heat network deployment”*.

Research into Barriers to Deployment of District Heating Networks (2013)

- 6.2.35 The report¹⁴ entitled ‘Research into Barriers to Deployment of District Heating Networks’ was published by DECC in March 2013.
- 6.2.36 The introduction sets out that the DECC wishes to support the deployment of district heating networks in suitable locations, through the removal of barriers to the market. The study was commissioned to examine existing and planned district heating networks, with the overall aim to help DECC understand the full range of barriers affecting networks, as well as enabling actions that could assist the deployment of district heating, and to inform the design and assessment of appropriate policy options.
- 6.2.37 Firstly, in terms of general terms of reference, the study examined a number of district heating systems and identified that in the UK over the last 10 years, they could generally be split into two distinctive types, namely:-

¹⁴ Research studied by BRE, University of Edinburgh and the Centre for Sustainable Energy for the Department of Energy and Climate Change.

- Local Authority led schemes which initially served buildings under the control of the Authority, but where the strategic aim exists to expand the scheme in the future;
- Property developer led schemes that serve new buildings, but which are designed to allow connections to larger, area wide networks in the future.

6.2.38 The study examined ‘enablers and possible types of support’ and on Page 7 sets out that Local Authorities were “considered to have a key role in setting the strategic context for, and initiating the development of, district heating networks within the UK’s towns and cities. However, they need more support if they are to fulfil this role”.

6.2.39 The report identified that local planning policies, particularly those in the London region, promote and support the development of heat networks through the planning process. The report stated that:

“this often meant that property developers were compelled to investigate and commit to the installation of heat networks. This requirement to provide heat network infrastructure meant that the costs have to be borne by the developer of the appointed energy services provider hence funding was not such an obstacle in the new build sector”.

6.2.40 The conclusions of the report included that Local Authorities were considered to have a:

“critically important role in setting this strategic context for, and initiating the development of district heating networks within the UK’s towns and cities. Their local knowledge, capacity for organisation, and key functions as planning authorities and service providers put them in a unique position”.

6.2.41 The study also examined quantitative information in relation to operational and planned district heating networks. Overall, detailed information was provided on some 25 networks and this included matters such as identifying primary heat sources, secondary sources and a breakdown of building types served by operational schemes.

6.2.42 The information also included external distances that pipework covered within schemes. The largest total length of external pipework trench for a network was reported to be 50km for an operational scheme. This particular scheme also had the largest distance (4.5km) between the energy centre and the furthest buildings served by the network. The median total length of pipework for the networks was just over 3km (average 7.6km).

6.2.43 In terms of planned projects, half of all the schemes proposed to serve a mixture of domestic and non-domestic buildings. The non-domestic buildings most commonly proposed to be connected to the developing systems were in ascending order:-

- Commercial offices;
- Government buildings; and
- Education buildings.

6.2.44 The average floor area to be covered by non-domestic buildings in developing schemes was identified as 42,803 sqm.

6.2.45 The study set out key areas where ‘barriers to district heating had been identified’ in Chapter 4. These included *inter alia*.

- Lack of a generally accepted role for Local Authorities; and
- Access to land.

6.2.46 Both of these matters are referred to below.

‘Lack of a generally accepted and established role for Local Authorities’.

6.2.47 The primary barrier was identified as how to educate Local Authorities who have not been involved in schemes. However, key drivers were identified for Local Authority schemes which included:-

- Achieving carbon emission reductions to mitigate climate change;

- Attracting inward investment to facilitate regeneration and job growth;
- Providing warmth and tackling fuel poverty; and
- Retaining energy expenditure through the local economy.

6.2.48 It was also identified that heat mapping to identify ‘opportunity areas’ for district heating, where heat density loads and sources of waste heat existed in close proximity, was seen as a key strategic activity that could be led by Local Authorities.

6.2.49 These points are important considerations when considering policy planning justification for heat network development and we make further reference to this below.

6.2.50 A further topic identified in terms of this particular barrier was ‘encouraging new schemes through the planning process’: this was referred to at paragraph 4.6.3 of the Report.

6.2.51 The Report identified in relation to new build developments, the role of Local Authorities will primarily revolve around encouraging heat networks through the planning process, rather than direct involvement in schemes. There is therefore a distinct contrast between the Local Authority role in terms of retro-fitting heat networks to existing buildings and in terms of new build developments.

6.2.52 The Report identified that a number of Authorities gave the view that: *“planning frameworks were not sufficiently robust or supported (by planning guidance) for heat networks to be encouraged. Specifically, they felt that the planning framework driving low carbon development was being ‘watered down’ and that the carbon reduction agenda was ‘evaporating’ at national level”*.

6.2.53 The term “planning framework” is not defined in the Report but we have interpreted it to refer to both the statutory Development Plan and national planning policy and guidance. The consequence of this policy issue was identified a move to a more difficult context in which to establish cross party political support amongst elected members and to govern senior decision makers.

6.2.54 Of particular note was the finding that a number of Authorities expressed the view that *“they had established policies to promote district heating and established area specific masterplans incorporating district heating”*. In addition, an Authority identified zones in their Local Development Framework where new buildings were expected to connect. The report also stated that a Local Authority had stated *“that a local policy is needed which says ‘if there is district heating in place, you have got to take the heat otherwise you cannot develop”*.

6.2.55 The report also notes that several property developers highlighted how Local Authorities had required new build developments to install heat networks as a condition for receiving planning permission. This was also specifically carried out *“in accordance with local planning policies”*.

6.2.56 It was also referenced in the Report that identifying a suitable location for an energy centre capable of supplying district heating serving an area was an important task for Local Authorities. As we comment below, this could potentially be a specific function of statutory Development Plans in terms of the ‘plan making’ functions of Local Authorities and could be very helpful in enabling wider deployment of heat networks.

‘Access to Land’

6.2.57 In terms of the identified barrier of ‘access to land,’ the Report identified that while there were statutory rights allowing the electricity network to cross land owned by third parties, the same arrangements do not exist in relation to heat networks. By contrast, a financial penalty would be payable to a third party landowner to allow a heat network to cross and this would be subject to negotiation between parties.

6.2.58 The report also identified that a number of Authorities have experienced *“problems with obtaining permission to put pipes into roads”* and called for district heating operators to have the same way-leave and access rights as utilities. A clear finding was that in general, new build developments encountered fewer issues with regard to access to land, compared to retro-fitting.

'Enablers and Possible Types of Support'

- 6.2.59 In terms of 'enablers and possible types of support,' this was examined in chapter 5 of the Report. At paragraph 5.1.5 the issue of 'mandatory requirements of Local Authorities to assess the potential for district heating' was addressed. The study identified that those parties who expressed a view considered that it would be helpful to "*mandate local authorities to consider the potential to decentralise energy*".
- 6.2.60 It was also identified that while it may be appropriate for Authorities with urban settlements over a certain size to undertake such assessments, this may not be a good use of resources in rural areas. It was also identified that it would be useful for "*guidance to be issued to local authorities requiring them to incentivise district energy*".
- 6.2.61 In terms of overall conclusions, it is of particular note that in terms of property developer led schemes, it was highlighted that local planning policies, in particularly in London, promote and support the development of heat networks through the planning process. It added "*this often meant that property developers were compelled to investigate and commit to the installation of heat networks. This requirement to provide heat network infrastructure meant that the costs have to be borne by the developer or their appointed service provider*".
- 6.2.62 From our review of this research report, we consider that there a number of key findings which are very relevant and resonate with the terms of reference which we have had for our current study. In particular, the references to policy are consistent with our findings from our own research as set out in Volume 1.

6.3 Scotland: Energy and Heat Policy

6.3.1 In this section the following national level policy documents are referred to:

- The Report of the Government appointed Expert Commission on District Heating (2012);
- The Draft Outline Heat Vision and Draft Heat Deployment Options Guidance Report (Jan 2013)
- Scottish Heat Mapping; and
- Towards Decarbonising Heat: Maximising the Opportunities for Scotland: Draft Heat Generation Policy Statement for Consultation (2014).

Expert Commission on District Heating (2012)

- 6.3.2 A report from the Expert Commission on District Heating was published in November 2012, setting out their recommendations to the Scottish Government. The Commission was established with a remit to advise the Scottish Government on the steps necessary to ensure a major move to district heating in Scotland.
- 6.3.3 The report sets out that "*district heating is an important means of achieving both carbon emissions and fuel poverty targets as well as contributing to the development of a low carbon economy and local economic regeneration*".
- 6.3.4 It adds that a 'step change' in the rate of development and installation of district heating in Scotland would make a significant contribution to implementation of several of the Scottish Government's key policies.
- 6.3.5 The recommendations cover targets and also specifically refer to 'Local Authority champions'. It adds that "Local Authority involvement in or facilitation of district heating is critical, either as a funder, anchor load user or via other functions such as planning." It adds that there is a strong case for funding for posts in Local Authorities for a District Heating Officer whose job would be to a champion and 'make something happen'.
- 6.3.6 The report specifically addressed "planning and regulation". Firstly, in terms of "way-leaves and access" the report states that practitioners have reported multiple problems because there is no right of way-leave for district heating pipes and that this can often lead to longer and more expensive pipe runs, as well as to legal delays etc. It adds there is also the need for a right of access for repairs and a right to gain access to property to install a pre-payment meter if customers default. It recognises that these powers are already available to other utilities.

- 6.3.7 Recommendation 10 in the report was that *“the Scottish Government should ensure that district heating companies have the same way-leave and access rights as other utilities”*.
- 6.3.8 In terms of “planning issues” the report stated that there is a difference in the level of expertise amongst planning officers concerning district heating and the knowledge base can vary significantly even within a single Authority, as well as between Authorities.
- 6.3.9 It explains that there is a strong case for the Scottish Government to issue further, *“clear guidance on both national and local aspects of planning for district heating. It would also greatly simplify the development of district heating schemes if installations of local connections which conform to required standards (see below) become permitted development”*.
- 6.3.10 The report explains that there is a clear case at a strategic level to designate areas of encouragement for district heating to help establish a market and that *“in these areas district heating would be actively presumed”*.
- 6.3.11 The report states that it is considered that regulation would be too prescriptive, but instead guidance to Local Authorities should be issued to incorporate such areas of encouragement into long term planning and that this should be included in the National Planning Framework (NPF).
- 6.3.12 The report also recommended that it would be sensible to locate “such areas of encouragement” where heat maps indicate suitable demand and load diversity to minimise pipework costs and to justify infrastructure investment. The report added that to support this, the rapid roll out of heat maps is therefore also crucial.
- 6.3.13 Recommendation 11 of the report was that *“the Scottish Government should issue guidance on both national and local aspects of the planning for district heating. Local authorities should designate areas based on heat maps where district heating would be the presumption for new development or refurbishment. The district heating industry should support seminars on district heating planning issues for planning practitioners and stakeholders.”*

Draft Outline Heat Vision and Draft Heat Deployment Options Guidance (Jan 2013)

- 6.3.14 The Scottish Government published the Draft ‘Outline Heat Vision’ document in January 2013. The heat vision brought together policy on heat across Government, to contribute to the Scottish Government’s Economic Strategy’s strategic objective to make the ‘Transition to a Low Carbon Economy’. It also included guidance on deployment in urban and rural areas.
- 6.3.15 The document explains that promotion of renewable heat is a devolved matter, and the Scottish Ministers’ have additional devolved powers over matters such as energy efficiency, consumer information and heat mapping at a Local Authority level, which are intended to complement and add weight to measures being introduced across the UK.
- 6.3.16 Section 2 of the document sets out a ‘statement of ambition’ and it states that *“by 2050 Scotland will have a largely decarbonised heat sector with significant progress made by 2030.”*
- 6.3.17 The report makes specific reference to heat mapping at paragraph 6.13 which states that the Scottish Government’s heat mapping programme is working with Local Authorities to support the development of local GIS (Geographic Information System) based heat maps.
- 6.3.18 The Annex to the document refers to draft deployment options and states that the expectation is that in the short term (out to 2020), dense urban areas will be more suited to district heating, with the initial infrastructure likely to be non-renewable in areas on the gas grid. However, it explains that the ultimate aim is to encourage the most low carbon solution for all buildings in areas and in the longer term, there is an expectation of a shift to renewables to achieve this.

Scottish Heat Mapping

- 6.3.19 The 'Scotland Heat Map – Framework' is the agreement between the Scottish Government and Scottish Local Authorities to share the data. In short, this visualises and assesses parties who needs heat, where sources of heat might come from and how these can be connected in an efficient way to reduce the cost of heat supply and the carbon intensity of heat generation. Scottish Government guidance notes that it can also be used, in combination with other spatial datasets, as a tool to focus on areas of need or priority.
- 6.3.20 The Scotland Heat Map draws together a wide range of data. It builds on three Local Authority pilot heat maps in Highland, Perth & Kinross and Fife. The Scotland Heat Map is a partnership project with data contributions from Government, public and private sector bodies. The heat map dataset uses GIS to allow analysis with other spatial datasets. All the data used in the heat map has been reviewed and classified as non-personal.
- 6.3.21 Each Scottish Local Authority has been offered the heat map dataset for their area to support local energy planning. Data is shared through the 'Scotland Heat Map Framework'.
- 6.3.22 As noted in the section below with regard to Scottish national planning policy, the draft Scottish Planning Policy (dated 2013, but under review and to be finalised in 2014) sets out that Local Development Plans should use heat mapping and the Scottish Government has issued planning advice entitled 'Planning and Heat'.
- 6.3.23 The Scottish Government advises that the heat mapping datasets can be used to:
- provide Planning Authorities with the knowledge base to highlight heat opportunities (such as heat recovery, district heating, renewable heat and low carbon heat) in Development Plans, in pre-application engagement with developers and in determining planning applications;
 - identify potential projects at a local level and Scotland wide to provide a potential pipeline of projects and the development of local investment proposals;
 - support heat plans for commercial and public sector energy management;
 - identify heat resources and unused excess heat;
 - identify heat opportunities in the domestic sector to benefit social housing and to tackle fuel poverty; and
 - Publish a local heat map for planning purposes, identifying areas of opportunity.
- 6.3.24 The Scottish Government web site also states that in terms of access to heat mapping, while the datasets are currently only available to Scottish Government and Local Authorities, 'Scotland heat map interactive' will be less detailed than the heat map datasets, and will be published on its website in Spring 2014. This, it is anticipated, will be of interest to:
- The Scottish Government and its agencies, in developing national policy;
 - Planning authorities, in guiding the development of heat at a local and regional level;
 - Public sector bodies, registered Social Housing Providers and housing developers, in finding potential sources of low cost or renewable heat for heating Scotland's homes and public buildings;
 - Businesses, in developing and maintaining heat infrastructure, and buying / selling surplus heat to heat networks.

Towards Decarbonising Heat: Maximising the Opportunities for Scotland: Draft Heat Generation Policy Statement for Consultation (2014)

- 6.3.25 The Draft Heat Generation Policy Statement (DHGPS) published in March 2014, sets out how low carbon heat can reach more householders, business and communities and sets a clear framework for investment in the future of heat in Scotland. It discusses how Scotland might reduce the amount of energy used for heat, diversify sources of heat, provide increased security of heat supply, provide greater local control and reduce the pressure on household energy bills.

- 6.3.26 The Executive Summary of the document sets out key targets in relation to heat and these include that by 2020 delivery of 11% of non-electrical heat demand will be delivered by renewable sources. The report explains that reducing the carbon intensity of heat is central to achieving these targets.
- 6.3.27 The DHGPS sits alongside a number of other key documents including the Electricity Generating Policy Statement and Scotland's Sustainable Housing Strategy, published in 2012 and 2013 respectively. The document is a consultation draft, and seeks responses from a wide range of stakeholders and poses a number of questions.
- 6.3.28 Question 6 is 'how do you think a national heat map could be used to support the development of a low carbon heat sector for Scotland?'
- 6.3.29 The Government sets out its ambition for district heating (page 42) and it sets an overall target of 1.5 TWh of heat to be delivered by 2020. It makes the point that there is a significant opportunity for tackling high heating bills in households, particularly in multi-storey buildings, where there are limited alternatives for affordable low carbon heat. It is explained that Scotland has a higher proportion of households in multi-storey buildings compared to the rest of the UK.
- 6.3.30 The role of the public sector is addressed (page 44) and this is seen as important in terms of development of district heating. The Report explains that *"this is both at a strategic level through the use of heat maps and local development plans as well as at a practical level through the substantial heating demand from public sector buildings such as offices, hospitals, leisure centres and social housing. The public sector provides a valuable customer base to support investment and district heating infrastructure"*.
- 6.3.31 The report also discusses how potential investment could be stimulated to deliver de-carbonised heat through growing and emerging sectors such as district heating and geothermal; and support industries and business sectors through identifying opportunities for heat efficiency, heat recovery, and renewable sources.
- 6.3.32 The report sets targets for district heating in Scotland (40,000 homes by 2020). The document states that doing so will make a significant contribution to meeting Scotland's climate change targets and support the delivery of our renewable heat target.
- 6.3.33 The DHGPS is the most recent national policy document in Scotland and of particular note in it is the central role acknowledged that Local Authorities can play in the deployment of heat infrastructure, and also the specific reference to the role of statutory Development Plans.

6.4 Wales: Energy and Heat Policy

6.4.1 In this section the following national level policy documents are referred to:

- The Welsh Assembly Government Energy Policy Statement (2010);
- Energy Wales: A Low Carbon Transition (2012); and
- Planning Policy Wales Edition 6 (2014).

A Low Carbon Revolution – The Welsh Assembly Government Energy Policy Statement (March 2010)

6.4.2 The Energy Policy Statement, 'A Low Carbon Revolution', builds on the results of consultations on the Renewable Energy Route Map and the Bioenergy Action Plan for Wales. It also draws on the work of:

- the Wales Climate Change Strategy;
- the National Energy Efficiency and Savings Plan;
- the Green Jobs Strategy; and
- The Ministerial Advisory Group on Economy and Transport's report on "The Energy Sector"

- 6.4.3 Chapter 3.1 (low carbon renewables) of the Policy Statement outlines a heat potential of 2-2.5 kWh/d/p¹⁵ in Wales by 2020. This is proposed to be achieved by a number of actions, one being the promotion of the £17m next phase of the Wood Energy Business Scheme (WEBS2) which will grant-aid wood fuel heating schemes, small scale wood fuel electricity generation, including CHP, and fuel supply business developments.

Energy Wales: A Low Carbon Transition (March 2012)

- 6.4.4 The programme for Government 2011-2016 commits to undertaking a whole system transition to low carbon energy covering electricity, heating and transport.

Planning Policy Wales, Edition 6 (February 2014)

- 6.4.5 Planning Policy Wales (PPW) sets out national planning policy and guidance on renewable energy (and other land use matters) and stresses the need to tackle the causes of climate change by moving towards a low carbon economy.
- 6.4.6 Para 12.8.1 states that the Welsh Government is committed to playing its part by delivering an energy programme which contributes to reducing carbon emissions as part of the approach to tackling climate change.
- 6.4.7 PPW re-affirms the Welsh Government's Energy Policy Statement Energy Wales: A Low Carbon Transition (2012) which identifies the sustainable renewable energy potential for a variety of different technologies as well as establishing commitment to energy efficiency. The aim by 2050, at the latest, will be a position where almost all of Wales's local energy needs can be met by low carbon electricity production. The approach is to reduce energy consumption and improve energy efficiency first and maximise renewable and low carbon energy generation at every scale across Wales.
- 6.4.8 PPW at paragraph 12.8.2 re-affirms that the Renewable Energy Directive contains specific obligations to provide guidance to facilitate effective consideration of renewable energy sources, high-efficiency technologies and district heating and cooling in the context of development of industrial or residential areas, and (from 1 January 2012) to ensure that new public buildings, and existing public buildings that are subject to major renovation, fulfil an exemplary role in the context of the Directive.
- 6.4.9 PPW confirms that in this context, both LPAs and developers should have regard in particular to the guidance contained in Technical Advice Note (TAN) 8: Planning for Renewable Energy, TAN22 and Planning for Renewable Energy – 'A Toolkit for Planners' (see below).
- 6.4.10 PPW at paragraph 12.8.7 states that renewable and low carbon energy developments will feature in many types of situations including those that are directly incorporated into the fabric of a building; are stand-alone directly connected to the grid; built within a new development (e.g. development scale CHP); or those which provide heat for a number of buildings (e.g. district heating).
- 6.4.11 PPW at paragraph 12.8.8 states that the Welsh Government is committed to using the planning system to facilitate CHP systems.

6.5 England: National Planning Policy and Guidance

The National Planning Policy Framework

- 6.5.1 The National Planning Policy Framework (NPPF or 'the Framework') was issued and came into force on 27 March 2012. It is a key part of the Government's reforms to make the planning system less complex and more accessible. The Framework acts as guidance for LPAs and decision-takers, both in drawing up LDPs and making decisions about planning applications. The NPPF forms the overarching national level planning policy guidance for England.

¹⁵ Kilowatt hours per day per person (kWh/d/p) of energy, as defined in section 1 of the Welsh Assembly Government Energy Policy Statement (2010).

Achieving Sustainable Development

6.5.2 The NPPF promotes sustainable development: a definition of this is set out in paragraphs 6 and 7 with regard to the economic, social and environmental roles of the planning system, as follows:

- An economic role – contributing to building a strong, responsive and competitive economy;
- A social role – supporting strong, vibrant and healthy communities;
- An environmental role – contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently...and mitigate and adapt to climate change including moving to a low carbon economy.

6.5.3 To achieve sustainable development “*economic, social and environmental gains should be sought jointly and simultaneously through the planning system*” (para 8).

6.5.4 The document sets out the ‘presumption in favour of sustainable development’ and firstly makes it clear (para 11) that “*planning law requires that applications for planning permission must be determined in accordance with the development plan unless material considerations indicate otherwise*”. Paragraph 12 adds that the NPPF does not change the statutory status of the Development Plan as the starting point for decision making. The NPPF is a material consideration in determining planning applications.

6.5.5 Paragraph 14 is a key part of the NPPF stating that:

“*at the heart of the planning system is a **presumption in favour of sustainable development**, which should be seen as a golden thread running through both plan making and decision taking.*”

For decision taking this means:

- *Approving development proposals that accord with the development plan without delay; and*
- *Where the development plan is absent, silent or relevant policies are out of date, granting permission unless:*
 - *Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in the Framework taken as a whole; or*
 - *Specific policies in this Framework indicate development should be restricted.”*

6.5.6 Paragraph 15 adds that “*policies in Local Plans should follow the approach of the presumption in favour of sustainable development so that it is clear that development which is sustainable can be approved without delay*”.

Core Planning Principles

6.5.7 There is reference to ‘core planning principles’ and these are set out at paragraph 17. These are to underpin both plan-making and decision-taking. In summary, those of relevance, are that planning should:

- Be genuinely plan-led;
- Not simply be about scrutiny;
- Proactively drive and support sustainable economic development to deliver....infrastructure and thriving local places that the country needs...;
- Secure high quality design and a good standard of amenity...;
- Recognise the intrinsic character and beauty of the countryside...;
- Support the transition to a low carbon future in a changing climate...and encourage the use of renewable resources (for example by the development of renewable energy).
- Contribute to conserving and enhancing the natural environment and reducing pollution;
- Conserve heritage assets in a manner appropriate to their significance.

6.5.8 Renewable energy generation is explicitly recognised as a specific core planning principle.

Building a Strong, Competitive Economy

6.5.9 Purposefully, the first topic in the NPPF states that the Government is committed to (paragraph 19):

“ensuring that the planning system does everything it can to support sustainable economic growth. Planning should operate to encourage and not act as an impediment to sustainable growth. Therefore significant weight should be placed on the need to support economic growth through the planning system.”

6.5.10 Paragraph 28 adds that planning policies should support economic growth in rural areas in order to create jobs and prosperity *“by taking a positive approach to sustainable new development.”*

Meeting the challenge of Climate Change

6.5.11 Section 10 of the NPPF is particularly relevant as it deals with climate change. Paragraph 93 states that planning has a key role in reducing greenhouse gas emissions and in:

“supporting the delivery of renewable and low carbon energy and associated infrastructure. This is central to the economic, social and environmental dimensions of sustainable development”.

6.5.12 At paragraph 97 the NPPF states that:

“To help increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources. They should:

- *Have a positive strategy to promote energy from renewable and low carbon sources;*
- *Design their policies to maximise renewable and low carbon energy development while ensuring that adverse impacts are addressed satisfactorily, including cumulative landscape and visual impacts;*
- *Consider identifying suitable areas for renewable and low carbon energy sources and supporting infrastructure, where this would help secure the development of such sources;*
- *support community-led initiatives for renewable and low carbon energy, including developments outside such areas being taken forward through neighbourhood planning; and*
- *identify opportunities where development can draw its energy supply from decentralised, renewable or low carbon energy supply systems and for co-locating potential heat customers and suppliers.*

6.5.13 This is the sole reference within the NPPF to heat and implementation of decentralised systems.

6.5.14 LPAs are further advised at paragraph 98 that, when determining planning applications, they should:

- *“Not require applicants for energy development to demonstrate overall need for renewable or low carbon energy and also recognise that even small scale projects provide a valuable contribution to cutting greenhouse gas emissions;*
- *Approve the application if its impacts are (or can be made) acceptable. Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should also expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas”.*

Conserving and Enhancing the Natural Environment

6.5.15 A number of Local Authorities consulted as part of our instruction have designations including Areas of Outstanding Natural Beauty. For example this type of designation covers a substantial land area within Cornwall and the Isle of Wight.

6.5.16 The ‘natural environment’ is addressed at section 11 of the Framework where it states the planning system should contribute to and enhance the natural and local environment by, *inter alia*:

- Protecting and enhancing valued landscapes;
- Minimising impacts on biodiversity.

- 6.5.17 Paragraph 115 outlines that *“Great weight should be given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty”*
- 6.5.18 Paragraph 116 goes further to set out that *“Planning permission should be refused for major developments in these designated areas except in exceptional circumstances and where it can be demonstrated they are in the public interest”*.
- 6.5.19 Paragraph 113 states that Planning Authorities should set criteria based policies against which proposals for any development in or affecting landscape areas will be judged.

Conserving and Enhancing the Historic Environment

- 6.5.20 A number of Local Authorities consulted (and as reported in Volume 1) identified that designated heritage assets have proved problematic in progressing some low carbon initiatives.
- 6.5.21 The historic environment is addressed in Chapter 10 of the Framework. The NPPF states at paragraph 128 that in determining planning applications, LPAs should require an Applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. Such assessments are to be taken into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset’s conservation and any aspect of the proposal.
- 6.5.22 Paragraph 132 states that, when considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset’s conservation. It adds that:

“the more important the asset, the greater the weight should be... As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments.....Grade I and II listed buildings, grade I and II* registered parks and gardens....should be wholly exceptional.”*

- 6.5.23 Paragraph 133 states:

“where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply ...”(these other matters relate to viable use of the asset etc. and are not particularly relevant to this case).

- 6.5.24 Paragraph 134 states that:

“Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal....”

- 6.5.25 Paragraph 135 addresses non designated heritage assets and states that in determining applications that affect directly or indirectly such assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset in question.
- 6.5.26 Overall, the policy approach indicates that there is a need for a balanced and considered approach to developments that will affect the setting of heritage assets.

Decision Taking and Determining Applications

- 6.5.27 Planning Authorities are advised to approach decision taking (paragraph 186) *“in a positive way to foster the delivery of sustainable development”*. Paragraph 187 adds that:

“Local planning authorities should look for solutions rather than problems, and decision-takers at every level should seek to approve applications for sustainable development where possible.”

- 6.5.28 Paragraph 196 of the NPPF refers to paragraph 38(1) of the 2004 Act and states:

“Planning law requires that applications for planning permission must be determined in accordance with the development plan, unless material considerations indicate otherwise. This framework is a material consideration in planning decisions”.

6.5.29 Paragraph 197 adds:

“In assessing and determining development proposals, local planning authorities should apply the presumption in favour of sustainable development”.

6.5.30 A fundamental part of the NPPF which needs to be applied in ‘decision taking’ is paragraph 14 of the document – the presumption in favour of sustainable development.

National Planning Practice Guidance

6.5.31 On 30th July 2013, the DCLG issued National Planning Practice Guidance (PPG) entitled ‘Planning Practice Guidance for Renewable and Low Carbon Energy’. The document was cancelled on 6th March 2014, but on the same date, it was replaced (and effectively replicated) by the Government’s ‘Planning Practice Guidance Suite’ which is an online planning guidance resource.

6.5.32 The introductory section to the PPG (Para 001) poses the question - why is planning for renewable and low carbon energy important? It states that:

“planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable”.

6.5.33 Paragraph 001 also gives four reasons why this is important namely in relation to:-

- Increasing the amount of renewable energy;
- Helping to make the UK have a secure energy supply;
- Reducing greenhouse gas emissions to slow down climate change; and
- To stimulate investment in new jobs and businesses.

6.5.34 The PPG refers to the need for LPAs to develop a positive strategy to promote the delivery of renewable and low carbon energy and also refers to how LPAs can identify suitable areas for such infrastructure. It makes the point that it is *“important that the planning concerns of local communities are properly heard in matters that directly affect them”* (Para 004). A key point is that these concerns need to be material planning matters in order to be taken into account.

6.5.35 The PPG states that LPAs should design their policies *“to maximise renewable and low carbon energy development”* (Para 004).

6.5.36 The Climate Change section paragraph: 004 states- ‘How can adaptation and mitigation approaches be integrated’? It adds:

“When preparing Local Plans and taking planning decisions local planning authorities should pay particular attention to integrating adaptation and mitigation approaches and looking for ‘win-win’ solutions that will support sustainable development. This could be achieved in a variety of ways, for example:

- *by maximising summer cooling through natural ventilation in buildings and avoiding solar gain;*
- *through district heating networks that include tri-generation (combined cooling, heat and power); or*
- *through the provision of multi-functional green infrastructure, which can reduce urban heat islands, manage flooding and help species adapt to climate change – as well as contributing to a pleasant environment which encourages people to walk and cycle.*

Local planning authorities should be aware of and avoid the risk of maladaptation (adaptation that could become more harmful than helpful). For example by promoting biomass burning as a renewable heat source, which can increase risks to air quality unless properly managed and suitably sited”.

6.5.37 Annex 2 ‘Glossary’ sets out the definition of renewable and low carbon energy as: “Includes energy for heating and cooling as well as generating electricity. Renewable energy covers those energy flows that occur naturally and repeatedly in the environment – from the wind, the fall of water, the movement of the oceans, from the sun and also from biomass and deep geothermal heat. Low carbon technologies are those that can help reduce emissions (compared to conventional use of fossil fuels)”.

The London Regional Plan

6.5.38 On 6th July 2010 the Secretary of State for Communities and Local Government sought to revoke Regional Spatial Strategies (RSS) with immediate effect so that they no longer formed part of Development Plans.

6.5.39 The Localism Act received Royal Assent on 15th November 2011. Section 109 of the Act gives the Secretary of State the power to make an Order to revoke an RSS under part 5 of the Local Democracy, Economic Development and Construction Act 2009. The London Plan¹⁶ has been retained as the overall strategic plan for London, and it sets out a fully integrated economic, environmental, transport and social framework for the development of the capital to 2031. It forms part of the development plan for Greater London. London Boroughs’ Local Plans need to be in general conformity with the London Plan, and its policies guide decisions on planning applications by Councils and the Mayor.

6.5.40 London Plan Policy 5.5 entitled ‘Decentralised Energy Networks’ establishes that:

“The Mayor expects 25 per cent of the heat and power used in London to be generated through the use of localised decentralised energy systems by 2025. In order to achieve this target the Mayor prioritises the development of decentralised heating and cooling networks at the development and area wide levels, including larger scale heat transmission networks”.

6.5.41 The policy goes further to establish that Local Authorities should

“develop policies and proposals to identify and establish decentralised energy network opportunities. Boroughs may choose to develop this as a supplementary planning document and work jointly with neighbouring boroughs to realise wider decentralised energy network opportunities. As a minimum Boroughs should:

A identify and safeguard existing heating and cooling networks

B identify opportunities for expanding existing networks and establishing new networks. Boroughs should use the London Heat Map tool and consider any new developments, planned major infrastructure works and energy supply opportunities which may arise

C develop energy master plans for specific decentralised energy opportunities which identify:

- major heat loads (including anchor heat loads, with particular reference to sites such as universities, hospitals and social housing)*
- major heat supply plant*
- possible opportunities to utilise energy from waste*
- possible heating and cooling network routes*
- implementation options for delivering feasible projects, considering issues of procurement, funding and risk and the role of the public sector*

D require developers to prioritise connection to existing or planned decentralised energy networks where feasible”.

6.5.42 Greater London is seeking the greater use of local, decentralised energy (DE) systems by 2025. These will predominantly be based around the use of gas-fired combined heat and power (CHP), district heating and cooling in the first instance. DE generates power at point of use, making more efficient use of primary energy by utilising

¹⁶ The London Plan (2011) is the overall strategic plan for London, and it sets out a fully integrated economic, environmental, transport and social framework for the development of the capital to 2031. It forms part of the statutory Development Plan for Greater London. London Boroughs’ Local Plans need to be in general conformity with the London Plan, and its policies guide decisions on planning applications by councils and the Mayor.

generated heat that would otherwise be wasted in large-scale thermal power generation plants. Greater use of DE will also help London become more self-sufficient and secure in relation to its energy needs.

6.5.43 The London Plan sets out at para 5.33 that there is the potential to increase its DE capacity ten-fold¹⁷ stating:

“The Mayor is working to stimulate a major increase in investment in the necessary district energy infrastructure required to maximise the opportunities it can deliver. Map 5.1 shows heat demand density across London, which when used in conjunction with other relevant spatial factors (such as social housing density, major development and regeneration areas) can help identify opportunities for DE networks”.

6.5.44 Furthermore, the London Plan outlines that Local Authorities have already undertaken technical and financial feasibility work to progress district-wide heat and power schemes, and it is expected all Local Authorities will actively promote DE in their Local Plans. This will enable systematic identification of key opportunities across London for different types of DE systems. The scale of opportunity can vary from CHP systems on specific development sites, through town centre wide district energy projects such as Elephant and Castle and the Olympic Park/Village schemes, to connecting into large scale infrastructure such as the London Thames Gateway Heat Network. This could ultimately extend to 23km and supply the heat requirements of some 120,000 homes and properties, saving approximately 100,000 tonnes of carbon dioxide each year.

6.5.45 Another key policy within the London Plan is ‘Policy 5.6 Decentralised Energy In Development Proposals’ which states that:

“A Development proposals should evaluate the feasibility of Combined Heat and Power (CHP) systems, and where a new CHP system is appropriate also examine opportunities to extend the system beyond the site boundary to adjacent sites.

B Major development proposals should select energy systems in accordance with the following hierarchy:

- 1 Connection to existing heating or cooling networks;*
- 2 Site wide CHP network;*
- 3 Communal heating and cooling;*

C Potential opportunities to meet the first priority in this hierarchy are outlined in the London Heat Map tool. Where future network opportunities are identified, proposals should be designed to connect to these networks”.

6.5.46 The supporting text in paragraph 5.37 of the Plan states:

“Development proposals should seek to connect to existing or planned DE networks. Linking a new development to an existing CHP system may be the most resource efficient option, allowing more effective use to be made of heat, power and cooling. If it is not possible to link to an existing system, the feasibility of CHP needs to be considered on a site-wide basis connecting different uses and/or group of buildings or an individual building. Investment in heat and cooling distribution infrastructure should be considered in all developments. CHP systems must be designed to run efficiently and be optimally sized to maximise carbon dioxide savings”.

6.5.47 The Plan sets out that where a district CHP system provides part of a development’s power and/or heating and/or cooling demand, suitable renewable energy technologies should be considered in addition, in accordance with Policy 5.7 and the Mayor’s energy hierarchy. In this area of policy, feasibility includes questions of financial and technical viability. There are recognised ways of identifying and assessing these. These are intended to ensure that requirements are not imposed on the development that could lead to uneconomic costs on occupiers.

6.5.48 As we have explained in Volume 1, as a consequence of the planning policies set out in the London Plan, the policy position is one which goes beyond simple encouragement of decentralised energy systems and it requires developers to seek to connect to existing or planned networks. The ‘Energy Hierarchy’ in the policy provisions

¹⁷ DEFRA. Analysis of the UK potential for Combined Heat and Power. DEFRA, October 2007.

has helped to enable effective deployment of infrastructure and it was evident from our engagement with planning officials in the consulted Local Authorities that they viewed the policy provisions in the London Plan as beneficial and allowed them to have a stronger negotiating position with developers in a development management context.

6.6 Scotland: National Planning Policy and Guidance

6.6.1 Scottish planning policy at the national level is contained within two principal documents, namely,

- the National Planning Framework 3 (NPF3); and
- Scottish Planning Policy (SPP).

6.6.2 Both documents were revised in June 2014.

6.6.3 NPF3 is a high level document setting out spatial and policy priorities for the long term. SPP is a more detailed policy document used for development planning (i.e. the preparation of Development Plans) and for development management.

6.6.4 Relevant policy from NPF3 and SPP is set out in this section, in particular where there is reference to low carbon heat and how the topic is to be addressed in Development Plans and in development management.

The National Planning Framework 3 (2014)

6.6.5 The top tier of national planning policy in Scotland is contained within the National Planning Framework (NPF3).

6.6.6 NPF3 address a 'low carbon place' at page 30. It states that the Government's ambition is to achieve at least an 80% reduction in greenhouse gas emission by 2050. Paragraph 3.5 acknowledges that heating and cooling constitutes around half of Scotland's total demand for energy and acknowledges that renewable heat infrastructure is growing.

6.6.7 Paragraph 3.8 sets out that by 2020, the aim is to reduce total final energy demand by 12%. It adds that heat accounts for a significant share of energy consumption and by 2020 *"we are aiming to source 11% of heat demand.....from renewable sources"*.

6.6.8 In terms of 'key actions', in relation to 'a low carbon place' (Action 11, p68) states that the Government *"will work with local authorities to build national and local authority heat maps into development plans"*.

Scottish Planning Policy (2014)

6.6.9 SPP was published in June 2014 and is the current statement of the Scottish Government on nationally important land use planning matters.

6.6.10 SPP makes reference to the policy context of NPF3 which has been referred to above. Paragraph 153 of SPP states that the efficient supply of low carbon and low cost heat and generation of heat electricity from renewable energy sources are vital to reducing greenhouse gas emissions and can create significant opportunities for communities.

6.6.11 SPP addresses a 'low carbon place' – delivering heat and electricity (page 36). It again refers to the national policy context set by the NPF. The SPP sets out 'policy principles' and states at paragraph 154 that the planning system should support the transformational change to a low carbon economy consistent with national objectives and targets. One of these targets is that 11% of heat demand should come from renewable sources by 2020.

6.6.12 A further principle is that the planning system should help to reduce emissions and energy use in new buildings and from new infrastructure by enabling development at appropriate locations that contributes to energy efficiency, heat recovery and sufficient energy supply and storage.

6.6.13 SPP cross refers to key other national policy documents including:-

- The Electricity Generation Policy Statement;
- The 2020 Routemap for Renewable Energy in Scotland;

- Towards Decarbonising Heat: Maximising the opportunities for Scotland, Draft Heat Generation Policy Statement;
- Low carbon Scotland: Meeting our Emissions Reduction Targets 2013 – 2027.

6.6.14 In terms of development planning, paragraph 155 states that “*development plans should seek to ensure an area’s full potential for electricity and heat from renewable sources is achieved, in line with national climate change targets, giving due regard to relevant environmental, community and cumulative impact considerations*”.

6.6.15 Specifically in terms of heat, paragraph 158 states that:

“Local Development Plans should use heat mapping to identify the potential for co-locating developments with a high demand with sources of heat supply. Heat supply sources include harvestable woodlands, sawmills producing bio-mass, bio-gas production sites and developments producing unused excess heat, as well as geothermal systems, heat recoverable from mine waters, aquifers, other bodies of water and heat storage systems. Heat demand sites for particular consideration include high density developments, communities off the gas grid, fuel poor areas and anchor developments such as hospitals, schools, leisure centre and heat sensitive industry.”

6.6.16 Paragraph 159 of SPP makes specific reference to the role of Development Plans and states that they:

“should support the development of heat networks in as many locations as possible, even where they are initially reliant on carbon based fuels, if there is potential to convert them to run renewable or low carbon sources of heat in the future. Local Development Plans should identify where heat networks, heat storage and energy centres exist or would be appropriate and include policies to support their implementation. Policy should support safeguarding of pipeworks within developments for later connection and pipework to the curtilage of development. Policies should also give consideration to the provision of energy centres within new development. Where district network exist or are planned or in areas identified as appropriate for district heating, policies may include a requirement for new development to include infrastructure for connection, providing the option to provide heat from the network.”

6.6.17 Paragraph 160 adds that where heat networks are not viable, microgeneration and heat recovery technologies associated with individual properties should be encouraged.

6.6.18 Overall therefore, the new SPP is very proactive in identifying the specific roles that Development Plans should play in supporting the development of heat networks and decentralised low carbon energy systems. The national policy specifically directs that policies in Development Plans should support the implementation of low carbon heat infrastructure.

6.7 Wales: National Planning Policy and Guidance

Planning Policy Wales, Edition 6 (2014)

6.7.1 Paragraph 4.1.2 of PPW highlights that the Welsh Government remains one of the few administrations in the world to have a distinctive statutory duty in relation to sustainable development. This duty, under the Government of Wales Act 2006 (Section 79) requires Welsh Ministers to make a scheme setting out how they propose, in the exercise of their functions, to promote sustainable development.

6.7.2 Paragraph 4.4.3 sets out that planning policies, decisions and proposals should *inter alia*: support the need to tackle the causes of climate change by moving towards a low carbon economy. This includes facilitating development that reduces emissions of greenhouse gases in a sustainable manner, provides for renewable and low carbon energy sources at all scales and facilitates low and zero carbon developments (Sections 4.7, 4.11 and Chapter 12).

6.7.3 Paragraph 12.8.7 states that renewable and low carbon energy developments will feature in many types of situations such as those that:

- are directly incorporated into the fabric of a building;

- are stand-alone directly connected to the grid;
- built within a new development (e.g. development scale combined heat and power);
- provide heat for a number of buildings (e.g. district heating);
- provide a fuel for use in transport; and
- provide cooling.

6.7.4 PPW has been referred to above in terms of Welsh national energy policy. The document emphasises the point that the Welsh Government is committed to using the planning system to:

- optimising renewable energy generation;
- optimising low carbon energy generation;
- facilitating CHP systems (and combined cooling, heat and power) where feasible; and
- recognising that the benefits of renewable energy are part of the overall commitment to tackle climate change by reducing greenhouse gas emissions as well as increasing energy security.

6.7.5 Paragraph 12.8.9 states that LPAs should facilitate the development of all forms of renewable and low carbon energy to move towards a low carbon economy (see 4.4.3) to help to tackle the causes of climate change (see 4.7.3).

6.7.6 Specifically, they should make positive provision by:

- considering the contribution that their area can make towards developing and facilitating renewable and low carbon energy, and ensuring that Development Plan policies enable this contribution to be delivered;
- ensuring that development management decisions are consistent with national and international climate change obligations, including contributions to renewable energy targets and aspirations;
- ensuring that all new publicly financed or supported buildings set exemplary standards for energy conservation and renewable energy production.

6.7.7 Paragraph 12.8.18 states that LPAs should facilitate Local Authority-wide scale renewable energy in development plans by undertaking an assessment of the opportunities and potential for renewable energy in the area. They should also look for opportunities to co-locate major developments in order to optimise renewable energy potential and to promote district heating schemes.

Development Management and Renewable and Low Carbon Energy

6.7.8 Paragraph 12.10.1 sets out that in determining planning applications for renewable and low carbon energy development and associated infrastructure local planning authorities should take into account, *inter alia*:

- the contribution a proposal will play in meeting identified national, UK and European targets and potential for renewable energy, including the contribution to cutting greenhouse gas emissions;
- the wider environmental, social and economic benefits and opportunities from renewable and low carbon energy development;
- the impact on the natural heritage (see 5.5), the Coast (see 5.6) and the Historic Environment (see 6.5);
- the need to minimise impacts on local communities to safeguard quality of life for existing and future generations;
- ways to avoid, mitigate or compensate identified adverse impacts;
- the impacts of climate change on the location, design, build and operation of renewable and low carbon energy development. In doing so consider whether measures to adapt to climate change impacts give rise to additional impacts;

Planning Policy Wales, Technical Advice Note 8: Planning For Renewable Energy

- 6.7.9 Paragraph 3.6 states that Local LPAs should take an active role in facilitating CHP systems through development plan and development brief processes.
- 6.7.10 The TAN confirms, in paragraph 3.7 that district heating installations require collaborative working between developers, energy companies and LPAs in order to achieve significant results. The advice note also re-affirms that the encouragement of community heating solutions using low carbon technologies should also be introduced into Development Plans and Supplementary Planning Guidance.
- 6.7.11 The TAN states that LPAs should seek to maximise the potential of renewable energy and that the local implications of TAN 8 should be incorporated into Local Development Plans (LDPs) in line with the requirements of the LDP process.

GLOSSARY

AONB: Area of Outstanding Natural Beauty
ASHP: Air Source Heat Pump
BEMS: Building and Energy Management System
CERT: Carbon Emissions Reduction Target
CHP: Combined Heat and Power
CHN: Community Heat Networks
DHN: District Heat Network
DECC: Department for Energy and Climate Change
DPD: Development Plan Documents
EIA: Environmental Impact Assessment
EGPS: Electricity Generation Policy Statement
ETI: Energy Technologies Institute
GPDO: General Permitted Development Order
GSHP: Ground Source Heat Pump
HEMS: Home Energy Management Systems
LA: Local Authority
LDD: Local Development Document
LDO: Local Development Order
LPA: Local Planning Authority
NPPF: National Planning Policy Framework
PDO: Permitted Development Order
PDR: Permitted Development Rights
PPG: Planning Practice Guidance
SCC: Sheffield City Council
SSH: Smart Systems and Heat
SPD: Supplementary Planning Documents
SPP: Scottish Planning Policy
TAN: Technical Advice Note
UCO: Use Classes Order



David Bell

Director
7 Exchange Crescent
Conference Square
Edinburgh, EH3 8LL
+ 44 (0) 131 301 6720
david.bell@eu.jll.com

Mike Hopkins

Director
One Piccadilly Gardens
Manchester
M1 1RG
+ 44 (0)161 238 7411
mike.hopkins@eu.jll.com

Tim Byrne

Associate Director
30 Warwick Street
London
W1B5NH
+ 44 (020) 7087 5478
tim.byrne@eu.jll.com

COPYRIGHT © JONES LANG LASALLE IP, INC. 2014.

This publication is the sole property of Jones Lang LaSalle IP, Inc. and must not be copied, reproduced or transmitted in any form or by any means, either in whole or in part, without the prior written consent of Jones Lang LaSalle IP, Inc.

The information contained in this publication has been obtained from sources generally regarded to be reliable. However, no representation is made, or warranty given, in respect of the accuracy of this information. We would like to be informed of any inaccuracies so that we may correct them.

Jones Lang LaSalle does not accept any liability in negligence or otherwise for any loss or damage suffered by any party resulting from reliance on this publication.