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RTPI RESEARCH PAPER APPENDIX

2019

PLANNING FOR A SMART ENERGY FUTURE

Appendix B: Policy review

THE Landmark PRACTICE

regen transforming energy

UWE Bristol University of the West of England

Pell Frischmann
Excellence through innovation

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Report authors

- Cheryl Hiles - Project Director, Pell Fischmann
- Hazel Williams - Head of Delivery, Regen
- Bernice Roberts - The Landmark Practice
- Nick Smith - Associate Head of Department in Geography and Environmental Management, UWE Bristol

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National planning policy relating to smart energy

This appendix briefly summarises the aspects of planning policy relevant to smart energy, and signposts to further information. It focuses on the system in and case studies from England, but also gives an overview of national planning policy for low-carbon or smart energy systems in Scotland, Wales, and Northern Ireland.

This research project focusses on planning for those elements of smart energy that are within the responsibilities of local planning authorities. Whilst this appendix therefore notes the planning context for development of national infrastructure projects, it provides no detail of planning for large scale generation or supporting infrastructure projects. Further information about planning policy for national infrastructure projects is available on gov.uk[1].

National planning policy in England,[2] and the devolved administrations of Scotland,[3] Northern Ireland,[4] and Wales[5] is consistent in the requirement that the planning system should support the transition to a low carbon future. Whilst, however, the concept of smart energy is well defined in UK Government energy policy, there is no clear or consistent approach set out by national *planning* policy across the UK to address the predicted implications of the roll out of smart energy, nor to set a robust regulatory framework that compels integration of smart energy as part of the decarbonisation of development. The detail, and indeed the assertiveness of planning policy in relation to smart energy, also varies between national administrations.

The following paragraphs summarise the planning policy context for smart energy as currently expressed by each of the UK national administrations.

England

In England, national planning policy is presented via the National Planning Policy Framework[6] (NPPF) and is accompanied by online Planning Practice Guidance, which gives guidance to LPAs on how they can deliver the NPPF's objectives, explains the NPPF's stance on climate and energy issues in more detail, and highlights a range of useful resources for LPAs.[7] Initially published in 2012, the latest version of the NPPF dates to February 2019.

Paragraph 5 of the NPPF notes that it:

> **"…does not contain specific policies for nationally significant infrastructure projects, which are determined in accordance with the decision-making framework in the Planning Act 2008 (as amended) and relevant national policy statements for major infrastructure, as well as any other matters that are relevant (which may include the National Planning Policy Framework). Local planning authorities should be aware that national policy statements form part of the overall framework of national planning policy, and may be a material consideration in preparing plans and making decisions on planning applications."**

Issues around energy are considered within the NPPF under ‘planning for climate change’. Although the 2018 NPPF revision dropped the previously embedded explicit statement that ‘Planning plays a key role in helping shape places to secure radical reductions in greenhouse gas emissions’, the direct link between national planning policy with the provisions of the Climate Change Act 2008 remains.[8] By expecting plans to take a proactive approach to mitigating climate change in line with the objectives and provisions of the Climate Change Act 2008, the NPPF in effect requires planning strategies to be consistent with national emissions reduction targets.

The provision of energy is a required strategic policy and Section 19(1B) - (1E) of the Planning and Compulsory Purchase Act 2004 (as amended by the 2008 Planning Act) sets out that each local planning authority must identify their strategic priorities and have policies to address these in their development plan documents (taken as a whole).

Section 19 of the Act also puts a duty on all local planning authorities in England to include in their local plans “policies designed to secure that the development and use of land in the local planning authority's area contribute to the mitigation of, and adaptation to, climate change.” The NPPF policy, read with the legal duty, therefore sets a clear direction for local planning authorities in developing plans to tackle climate change.

NPPF policy for plan-making in respect of clean energy is somewhat generic and is weighted towards energy generation with a nod to “supporting infrastructure” (paragraph 151b). Paragraph 151 sets out that plans should provide a positive strategy to increase the use and supply of renewable and low carbon energy and heat. They should consider identifying suitable areas for renewable and low carbon energy sources and supporting infrastructure and, outside such areas, support community-led initiatives. They should also identify opportunities for energy demanded by development to be served by decentralised, renewable or low carbon energy supply systems, and they should promote co-location of heat customers and potential suppliers.

For place making, NPPF paragraph 150b makes clear that new development should be planned to reduce greenhouse gas emissions and ‘take account of landform, layout, building orientation, massing and landscaping to minimise energy consumption.’

The wording of additional text, however, may be considered to diminish the potential weight of the decarbonisation message. The second part of paragraph 150b, in particular, states that any local requirements for the sustainability of buildings should reflect the Government’s policy for national technical standards which, at the time of writing, are currently significantly below the standard required to achieve the government target of net zero carbon emissions by 2050.

Similarly, NPPF paragraph 153a states that, in determining planning applications, local planning authorities should expect new development to comply with any development plan policies on local requirements for decentralised energy supply ‘unless it can be demonstrated by the applicant, having regard to the type of development involved and its design, that this is not feasible or viable’.

Overall, despite the recent ramping up of government ambition to achieve net zero by 2050, and the legal duty set out in the Climate Change Act 2008 for planning to take a proactive approach to mitigating climate change, the NPPF lacks the dedicated policy that is needed by local planning authorities in England to deliver the transition to smart energy, backed up by relevant and up to date building standards.

Scotland

In Scotland, the National Planning Framework[9] (NPF3) is also clear that planning must facilitate the transition to a low carbon economy. Scottish Planning Policy (SPP)[10] sits below NPF3 and presents national policies and priorities for planning and the development and use of land. The term 'smart energy' is not specifically used but, as a document, it is markedly more robust in its approach to securing transformational change through the integration of planning and energy than the English NPPF. Specific references are given to the obligations of the Climate Change (Scotland) Act 2009,[11] and paragraph 19 of the SPP explains how the document is intended to set out how:

> **'…the Climate Change Act should be delivered on the ground, noting that planning can support the transformational change required to meet emission reduction targets and influence climate change, and influence people's choices to reduce the environmental impacts of consumption and production, particularly through energy efficiency and the reduction of waste.'[12]**

Although SPP is non-statutory, it provides a clear bridge between national energy policy and national planning policy, to which planning authorities must have regard. Guidance on how planning should contribute to sustainable development is expressed in the SPP in specific, even prescriptive, terms, highlighting opportunities for planning to address energy generation and the integration of energy and heat in new development. It also emphasises the role of the planning system in locating established and emerging energy generation and storage technologies (Section 3D of the Town and Country Planning (Scotland) 1997 Act).

SPP paragraph 45 gives specific illustrations of how planning can achieve low carbon places:

> **'This can mean denser development that shares infrastructure and amenity with adjacent sites. It could include siting development to take shelter from the prevailing wind; or orientating it to maximise solar gain. It could also include ensuring development can withstand more extreme weather, including prolonged wet or dry periods, by working with natural environmental processes such as using landscaping and natural shading to cool spaces in built areas during hotter periods and using sustainable drainage systems to conserve and enhance natural features whilst reducing the risk of flooding. It can include using durable materials for building and landscaping as well as low carbon technologies that manage heat and waste efficiently.'**

The ambition to achieve decarbonisation of the built environment demonstrated by Scottish planning policy is reflected in the Climate Change Committee's 2019 report 'Reducing UK emissions - 2019 Progress Report to Parliament.[13] This noted that whilst all of the key policy gaps relating to energy efficiency in buildings identified in the 2018 progress report remain unaddressed or only partially met elsewhere in the UK, Scotland provided a good example of setting out a comprehensive framework of standards to drive buildings energy efficiency.

Northern Ireland

Responsibility for planning in Northern Ireland is shared between eleven local councils and the Department for Infrastructure. National policy is set out in a Strategic Planning Policy Statement (SPSS) for Northern Ireland that was published in 2015. The provisions of the SPPS must be taken into account by local councils as they prepare their Local Development Plans. SPSS content is also material to all decisions on individual planning applications and appeals.

The document does not refer to smart energy. It does include some relevant areas of support, such as facilitating the siting of renewable energy generating facilities in appropriate locations within the built and natural environment. While the document outlines the kind of impacts that should be considered, it also directs local councils to present policies and proposals via their Local Development Plans (LDPs) in order to support renewable energy development.

The SPPS does not refer to the UK Climate Change Act 2008, but reference is made to the Northern Ireland Climate Change Adaptation Programme (published in January 2014). Paragraph 3.13 highlights certain actions where planning authorities can help to mitigate and adapt to climate change.

The SPSS is supported by Planning Policy Statements (PPS) and Supplementary Planning Guidance (SPG). Of the former, PPS18: Renewable Energy,[14] with accompanying best-practice guidance,[15] has greatest relevance to this research, although the policy is not couched within the terms of a smart energy system.

Northern Ireland also has a Regional Development Strategy which presents a spatial framework, [16] and strategic priorities, to 2035. Its energy related goals include:

- Use more energy efficient forms of transport;
- Improve the energy efficiency and adaptability of buildings;
- Increase the use of renewable energies; and
- Utilise local production of heat and/or electricity from low or zero carbon energy sources.

The key documents outlined above date largely from before or shortly after the UK committed to its obligations under the Paris Climate Agreement. In February 2019 the Committee on Climate Change published ‘Reducing emissions in Northern Ireland’, which examined how Northern Ireland could reduce greenhouse gas emissions between now and 2030.[17] The report offers a starting point for the general principles and policy areas needed to prioritise to long-term decarbonisation of the Northern Ireland economy, noting the interface between planning for decarbonising buildings, transport, waste and agriculture, and opportunities offered by smart technologies and systems. Pending adoption of new policies, therefore, Northern Ireland has ground to make up compared with other parts of the UK in progressing towards effective planning for smart energy.

Wales

The latest version of national policy in Wales, *Planning Policy Wales* (PPW), was published in December 2018. The document sets out the land use planning policies of the Welsh Government[18] and is supported by a series of Technical Advice Notes (TANs), Welsh Government Circulars, and policy clarification letters.[19] The underlying goal of PPW is to ensure that the planning system

contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural well-being of Wales, as required by the Planning (Wales) Act 2015, the Well-Being of Future Generations (Wales) Act 2015 and other key legislation. The document also outlines how the planning system should operate at national, regional and local levels.

Wales also has a National Development Framework, the latest version of which was published in 2008 under the title 'People, Places, Futures – The Wales Spatial Plan.[20] The document presents Government priorities in a single strategy, and outlines spatial priorities for different parts of Wales. Energy is addressed throughout the Spatial Plan, in terms of the sector's importance for delivering a low carbon future, and of its role as a focus for encouraging investment and economic development. These principles were reinforced in the Wales Infrastructure Investment Plan for Growth and Jobs (2012), which considers energy as a form of 'economic infrastructure'.[21]

In comparison to England's NPPF, PPW takes a proactive and integrated approach to energy planning, aided by the cross-cutting nature of the sponsoring Cabinet Officer portfolio, which jointly covers energy, planning and rural affairs. While the term 'smart energy' is not used, the document acknowledges that a sustainable place must 'embrace smart and innovative technology'. Energy is noted as an essential part of place making under the theme of 'Productive and Enterprising Places'. Although PPW does not specifically refer to the Climate Change Act 2008, or to the Planning and Energy Act 2008, it cites the Environment Act 2016, which sets a legal target of reducing greenhouse gas emissions by at least 80% by 2050.[22] The Act also requires a series of interim targets (for 2020, 2030 and 2040) and associated carbon budgets for key sectors.

The overall direction of PPW builds upon guidance outlined in Energy Wales: A Low Carbon Transition,[23] using an energy hierarchy approach that progressively commits to:

- Reducing the amount of energy used in Wales;
- Reducing the country's reliance on energy generated from fossil fuels; and
- Actively managing the transition to a low carbon economy.

The PPW paragraphs noted below are particularly relevant to this research:

- **5.7.1** - notes that the planning system has a key role to play in delivering clean growth and the decarbonisation of energy, as well as being crucial in building resilience to the impacts of climate change. As part of its commitment to delivering a 'Healthier Wales', a shift towards generating energy from non-carbon sources can help to meet goals for emissions reduction and reduced air pollution.
- **5.7.18** - emphasises the need for a collaborative approach to deliver Wales' energy targets, and for local authorities to 'take an active, leadership approach' and to identify 'challenging, but achievable targets for renewable energy in development plans' .Specifically, planning authorities are directed to engage with the energy industry to help set these targets, and to identify potential grid infrastructure issues. Collaboration with National Grid and Distribution System Operators is prioritised. In setting these targets, PPW identifies the importance of drawing from an appropriate evidence base and using a full range of policy options.
- **5.7.8** - offers a comprehensive list of how the planning system can embed smart energy by helping to integrate development with the provision of additional electricity grid network infrastructure; Optimise energy storage; Facilitate the integration of sustainable building

design principles in new development; Optimise the location of new developments to allow for efficient use of resources; Maximise renewable and low carbon energy generation; Maximise the use of local energy sources, such as district heating networks; Minimise the carbon impact of other energy generation; and move away from the extraction of energy minerals, the burning of which is carbon intensive.

- **5.7.15** - states how planning authorities should consider the energy needs of new development.
- **5.8.1** - explains how the planning system should:

> **"…support new development that has very high energy performance, supports decarbonisation, tackles the causes of climate change, and adapts to the current and future effects of climate change through the incorporation of effective mitigation and adaptation measures".**

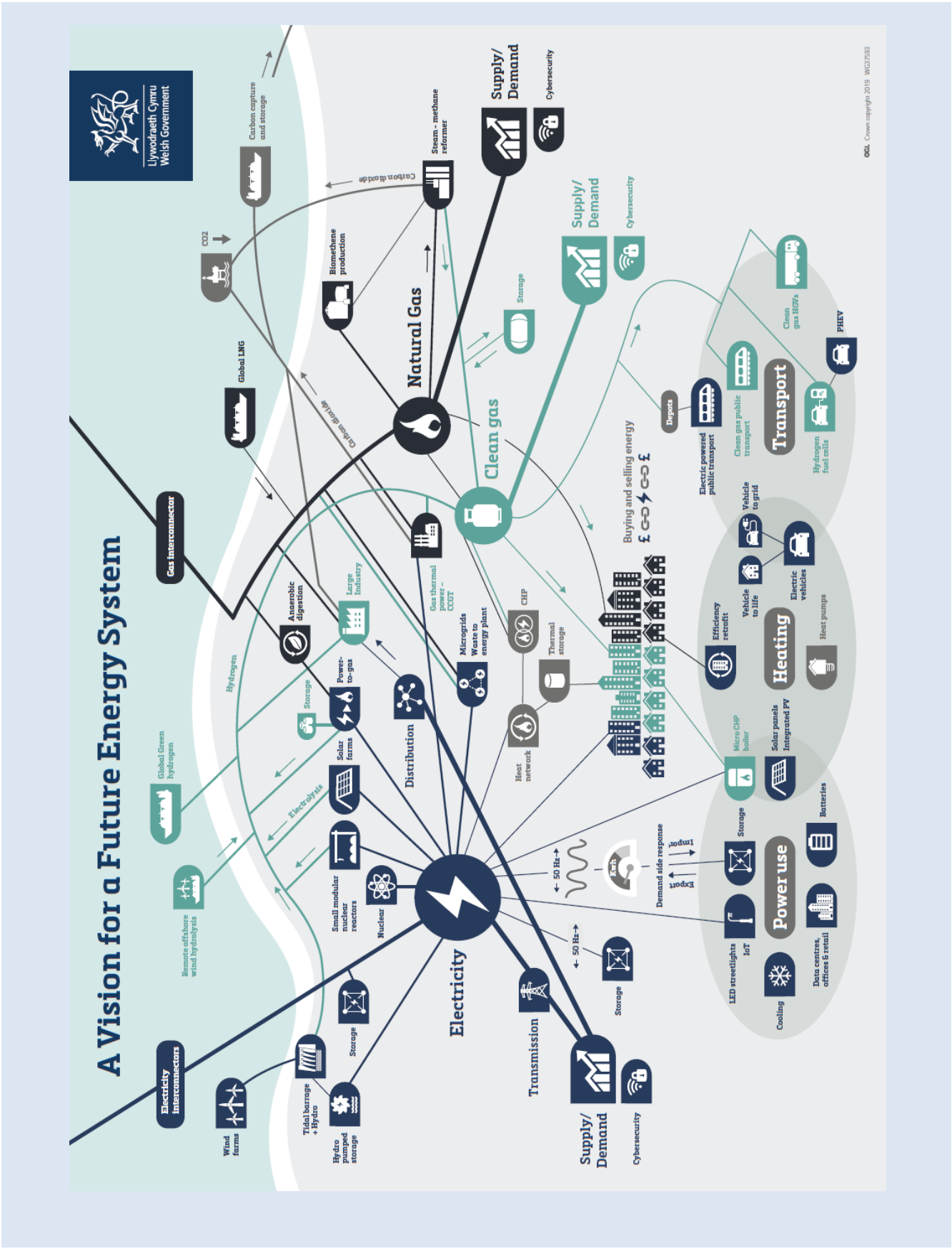
- **5.8.4** - states how planning authorities should assess strategic sites to identify opportunities for requiring higher sustainable building standards, including zero carbon, in relevant development plans.
- **5.9.1**- planning authorities should 'facilitate' all forms of renewable and low carbon energy development and take a positive approach to the promotion of local energy generation and to the co-location of major developments in order to enable the use of local heat opportunities.
- **5.9.9** - outside identified areas, 'planning applications for renewable and low carbon energy developments should be determined based on the merits of the individual proposal".

The Welsh Government published 'Prosperity for All: A Low Carbon Wales' in March 2019.[24] While this document has no formal status with respect to the operation of the Welsh planning system, it is a useful reference point and indicates a direction of travel for future Welsh policy, drawing together a comprehensive suite of policies from across the Welsh Government, the UK Government and the EU. The document outlines a need to support innovation and the commercialisation of new products, processes and services in the energy system, advocating a 'whole energy system approach' that begins by acknowledging the change that is occurring across the previously separate and centralised systems of power, heating and transport fuel, and acknowledging that:

> **"The boundaries between the systems are also becoming blurred, with energy being converted into different forms to address a range of needs. This approach is often termed a multi-vector system and will be required to fully exploit the interrelationships and synergies between the power, heat and transport sectors"[25]**

Figure 1, reproduced below, presents a vision for how this smart energy system might look. The ambition to deliver smart energy set by national planning policy in Wales (despite being post-dated by the recently revised NPPF in England) is the most comprehensive and far reaching of the four UK administrations. Although it is too early to assess the effectiveness of policy implementation at a local level, it establishes a supportive and informed context for action by local planning authorities, which recognises the role of smart energy and the need for collaboration between planning authorities and key infrastructure providers to support placemaking aspirations.

Figure 1: A vision for a future energy system[26]



Nationally Significant Infrastructure Planning

Table 1, below, summarises the interface between the local and national infrastructure planning regimes for smart energy in each of the UK administrations.

Table 1: Planning for Nationally Significant Infrastructure: Smart Energy.

	Planning permission under Town and Country planning legislation	**Consent from Welsh Ministers (DNS) or Scottish Ministers (section 36 consent)**	**Development Consent under the Planning Act 2008**
England	Where the generating capacity is up to and including 50 MW permission is sought from the relevant LPA under the TCPA. For onshore wind, all schemes regardless of size are dealt with at this level.	N/A	Where the generating capacity is more than 50 MW (with the exception of onshore wind) permission is sought from the BEIS SoS under the Planning Act 2008.
Wales	Where generating capacity is up to and including 10 MW permission is sought from the relevant LPA under the TCPA.	Developments of National Significance relate to onshore generating stations of between 10MW and 350MW (with the exception of onshore wind generating sites where no upper threshold applies). Legislation also applies to all offshore schemes of up to 350 MW.	Where a generating system exceeds 350 MW permission is sought through the Planning Act 2008 (excluding schemes that propose to generate electricity from wind).
Scotland	Where the generating capacity is up to and including 50MW, permission is sought from the relevant LPA under the TCPSA.	Where the generating capacity is more than 50MW permission is sought from the Scottish Ministers under the Electricity Act 1989.	N/A
Northern Ireland	Section 26 of the Planning Act 2011 allows for the Department of Infrastructure to determine regionally significant planning applications. The legislation sets a threshold of 30MW for electricity generating projects.		

Planning for smart energy in England

The following section presents examples of how plan makers in England have developed policy approaches for the delivery of smart energy. The summary covers a range of spatial scales of planning, beginning with strategic plans and concluding with neighbourhood planning. As with the rest of the UK, the planning system in England is plan-led meaning that planning applications need to be determined in accordance with the policies of an adopted development plan, unless there are other material considerations that may indicate otherwise. The form of the development plan today is defined in section 38 of the Planning and Compulsory Purchase Act 2004, and includes adopted local plans (produced individually or jointly by local planning authorities), as well as any spatial development strategy produced by an elected Mayor or combined authority, where plan-making powers have been conferred. Neighbourhood plans that have been approved at referendum are also part of the development plan, unless a local planning authority has decided that the neighbourhood plan should not be made.

Strategic planning

London Plan

London exercises its strategic planning powers via the continuing activities of the Greater London Authority (GLA) and the Mayor of London. The Mayor is obliged to create a 'Strategic Development Strategy' (SDS) for 32 London boroughs and the Corporation of the City of London. The current version of the SDS, known as the London Plan, dates to 2016.[27] Public examination of the revised version of the Plan was completed in May 2019 and the examination report is expected to be submitted to the Mayor in September 2019.

Combined authorities

Combined authorities are a legal structure that may be set up by two or more local authorities in England to encourage collaboration across council boundaries.[28] There are currently eleven combined authorities in England (including London) and the majority have directly elected mayors. Once combined, the authorities can take on any functions that they agree to share, plus any statutory functions transferred to them by an Order made by the Secretary of State. The Combined Authorities (Spatial Development Strategy) Regulations 2018 allows for three combined authorities (Greater Manchester, Liverpool City Region and the West of England) to create their own Spatial Development Strategies. According to the regulations[29], each of these strategies should contain a reasoned justification of the combined authority's strategy for spatial development across the defined area.

Box 1 summarises the framing of draft policy S12 on minimising greenhouse gas emissions[30]

Box 1: The London Plan Examination in Public (Jan-May 2019)

The draft London Plan was published on 29 November 2017. An Examination in Public of the Plan's content started in January 2019 and concluded in May 2019. Energy, as a topic, was considered on the 29 March 2019.

Policy SI2 is focused on the minimisation of greenhouse gas emissions and links to the Mayor of London's goal to become a zero-carbon city. Policy SI3 is concerned with Energy infrastructure. Part A of this policy identifies how boroughs and developers should engage at an early stage with relevant energy companies and bodies to establish the future energy requirements and infrastructure arising from large-scale development proposals. Part B of the policy identifies how energy masterplans should be developed for large-scale development locations in order to establish the most effective energy supply options. The policy identifies 12 separate elements that these master plans should cover, such as secondary heat sources; opportunities for low temperature heat networks; possible land for energy centres and/or energy storage; and possible heating and cooling network routes. Part C explains how development plans across the city should:

- Identify the need for, and suitable sites for, any necessary energy infrastructure requirements including upgrades to existing infrastructure;
- Identify existing heating and cooling networks and opportunities for expanding existing networks and establishing new networks.

Finally, part C states how major development proposals within Heat Network Priority Areas should have a communal low-temperature heating system.

Examples of combined authorities include the West of England Combined Authority (the only such authority in South West England), which consists of the local authorities of Bristol, South Gloucestershire, and Bath and North East Somerset. The Greater Manchester Combined Authority, is made up of the ten Greater Manchester councils, and The Liverpool City Region Combined Authority, is centred on Liverpool, and incorporates the local authority districts of Halton, Knowsley, Sefton, St Helens, and Wirral.

The creation of a Combined Authority enables member councils to be more ambitious in their joint working and to take advantage of new powers and resources devolved to the combined authority (i.e. metro-mayoral) level from national government. Combined authorities have the potential to be potent leaders in setting planning policy for smart energy on the basis that they cover a larger geographical area, may hold strategic planning powers, tend to be better resourced, and have greater flexibility to pursue non-housing and growth related policy.

The planning activities of the first combined authority to be established in England (in 2011), the Greater Manchester Combined Authority, are summarised at Box 3, below. Five combined authorities are being funded by the Department for Business, Energy and Industrial Strategy to act as Local Energy Hubs.[31] Each hub is intended to facilitate collective action to help reduce, purchase, manage and generate energy.

Box 2: The Greater Manchester Combined Authority (GMCA)

The GMCA is made up of the ten Greater Manchester councils and a Mayor, who work with other local services, businesses, communities and other partners to improve the city-region. The GMCA has an ambition to be carbon neutral by 2038 and has recently prepared its own Environment Plan to help achieve this goal. In January 2019 the GMCA published a revised draft of its Spatial Framework under the title 'Greater Manchester's Plan for Homes, Jobs, and the Environment'. The plan identifies, amongst other things, how Greater Manchester should develop until 2037 and identifies the amount of new development that will come forward across the 10 districts, in terms of housing, offices, and industry and warehousing, and the main areas in which this will be focused. By drawing from the Greater Manchester Spatial Energy Plan, as produced by Energy Systems Catapult in 2016, the plan includes a specific policy on carbon and energy that outlines how carbon neutrality will be achieved by:

- Securing a sustainable pattern of development;
- Promoting the retrofitting of existing buildings with measures to improve energy efficiency and generate renewable and low carbon energy;
- Taking a positive approach to renewable and low carbon energy schemes;
- Keeping fossil fuels in the ground;
- Planning for a balanced and smart electricity grid by identifying geographical locations which could support energy assets [identified as being for electricity generation or storage infrastructure or a mixed hybrid approach subject to local demand and connectivity];
- Increasing carbon sequestration through the restoration of peat-based habitats, woodland management and tree-planting; and
- Development of Local Energy Area plans to develop cost effective pathways to achieve carbon targets.

The policy also states that new development will be zero net carbon from 2028, with an interim requirement that all new dwellings should seek a 19% carbon reduction against Part L of the 2013 Building Regulations. New developments should also incorporate adequate electric vehicle charging points to meet likely long-term demand, and where practicable, connect to a renewable/low carbon heat and energy network. The policy also requires new development to:

- Achieve a minimum 20% reduction in carbon emissions (based on the dwelling emission or building emissions rates) through the use of on-site or nearby renewable and/or low carbon technologies; and
- Include a carbon assessment to demonstrate how the design and layout of the development sought to maximize reductions in whole life CO2 equivalent carbon emissions.

Joint local plans

Section 28 of the Planning and Compulsory Purchase Act 2004 enables two or more local planning authorities to agree to prepare a joint local plan.[32] Section 29 of the same act allows for the establishment of Joint Committees which essentially enables member authorities to act as a single planning authority and take joint decisions. Joint Plans, and Joint Development Plan Documents, can help to streamline planning for an area's strategic priorities. A joint approach enables cross-boundary issues to be addressed and for resources and costs to be shared and potentially reduced, for example, through the sharing of evidence base work. Across England there are more than 20 of these joint plans. Examples in the south west of England include the Plymouth and South West Devon Local Plan, the North Devon and Torridge Joint Plan and the Gloucester, Tewkesbury and Cheltenham Joint Core Strategy.

Some joint plans are being prepared with the term 'strategic' being included in their title. These plans tend to cover a larger geographical area and have a longer end-date (e.g. 20-30 years). Examples include those plans being prepared for Greater Exeter, Oxfordshire, South Essex, South West Herts, and the West of England.

Box 2 summarises the process whereby adjacent local planning authorities addressed energy matters in the plan covering Plymouth and south west Devon.

Box 3: The Plymouth and South West Devon Joint Local Plan (March 2019)

The Plymouth and South West Devon Joint Local Plan was adopted by South Hams District Council on 21 March 2019, Plymouth City Council on 26 March 2019 and West Devon Borough Council on 26 March 2019. The adopted Joint Local Plan covers the administrative areas of Plymouth City, South Hams District and West Devon Borough and forms part of the Development Plan for these areas.

Energy is considered under the theme of transport and infrastructure, with Policy DEV32 focusing on delivering low carbon development. Part 3 of this refers to how the plan is seeking to implement action against an energy hierarchy, while part 4 states how developments should reduce the energy load of the development by pursuing good layout, orientation and design to maximise natural heating, cooling and lighting, and reduce the heat loss area. A solar masterplan is demanded for major developments, with this demonstrating how access to natural light has been optimised in the development. Part 5 states how all major development proposals should incorporate low carbon or renewable energy generation to achieve regulated carbon emissions levels of 20 per cent less than that required to comply with Building Regulations Part L. Finally, part 6 explains how developments will be required to connect to existing district energy networks in the locality or, where there is a future network planned, to be designed to be capable of connection to that network. The policy also states that where appropriate, proportionate contributions will be sought to enable a network to be established or completed.

Local Enterprise Partnerships

Local Enterprise Partnerships (LEPs) are business-led partnerships between local authorities and local private sector businesses. There are currently 38 LEPs across England, of which five are in the South West of England (Cornwall; Heart of the South West; Dorset; West of England; and Swindon and Wiltshire).[33] Each LEP is expected to help to determine local economic priorities and undertake activities to drive economic growth and job creation, improve infrastructure and raise workforce skills within the local area. LEPs have responsibility for bidding for and running Enterprise Zones, and are also able to bid for, and then allocate, government funds for infrastructure.

However, while they have a significant role with respect to policy development and analysis, they are limited in terms of what they can deliver themselves. Indeed, LEPs have no stautory strategic planning or implementation powers . As such, their role is currently separate to that of the local planning authority, or group of authorities, in which they are located.

As part of the Local Energy Programme of BEIS, all LEPS have been offered funding to develop a Local Energy Strategy for their area.[34] This funding supplements the support provided with the broader LEP programme and is intended, amongst other benefits, to:

- Facilitate delivery of national energy objectives at the local level and to provide a route into government;
- Utilise knowledge of local energy and low carbon activities across England to help manage, and encourage, a range of local policies and support projects;
- Collect and collate information on: energy and carbon strategies; local commitments and aspirations; projects completed, and in the pipeline, barriers to delivery; and local strengths and weaknesses; and
- Help address potential barriers to delivery, local engagement, finance, procurement and communications.

The role that LEPs might play in supporting local energy, explored in a study of the Liverpool City Region in 2017, identified how greater LEP engagement in informing spatial planning could help to realise the economic, social and environmental benefits of local energy activities.[35]

The role of planning policy and associated engagement between LEPs and local planning authorities in transitioning towards a low energy carbon system has also been explored by the Cornwall and Isles of Scilly, Dorset, and Heart of the South West LEPs (see Box 4, below).

Box 4: The Heart of the South West Energy Strategy (January 2019)

The Carbon Trust was appointed to produce an energy strategy for the Cornwall and Isles of Scilly, Dorset, and Heart of the South West LEPs. The Energy Systems Catapult (ESC) was also part of the project team and was responsible for producing a series of energy scenarios for the report. The study was funded by the Department for Business, Energy and Industrial Strategy as part of the Local Energy Programme (see above). The document presents a vision for transitioning towards a low energy carbon system that draws from scenario modelling and a review of constraints and opportunities affecting the south west energy landscape. The study outlines the role, and type of governance structures needed, to deliver the overarching vision. By presenting a delivery plan, the document also considers resource requirements, and presents a five-step plan. A funding and investment strategy is also presented.

With respect to planning and the planning system, the text acknowledges that policies are 'too focussed on a top down centralised energy system' (page 19). It also recognises that social and political support differs between the three LEP areas, providing localised challenges to securing planning consent. Elsewhere, the study acknowledges that 'unambitious planning policy currently restricts the ability of developers to use low carbon heating generation' (page 21). Consequently, the study acknowledges on page 28 that:

> **"Policy, regulation and planning have not yet fully developed to support the transformation of the energy system. In particular, energy policy and regulation are currently centralised in Westminster and Ofgem. As such, they are not yet fit for purpose for a decentralised system (page 28). The study also acknowledges that "infrastructure development is highly dependent on planning policy and associated engagement from Local Authorities and the communities they represent."**

Local plans

Local plans are produced in collaboration with the public and key stakeholders, and are expected to be grounded on a firm evidence base. As MHCLG guidance states, 'succinct and up-to-date plans should provide a positive vision for the future of each area; a framework for addressing housing needs and other economic, social and environmental priorities; and a platform for local people to shape their surroundings'.[36] They also need to be prepared with the objective of contributing to the achievement of sustainable development.

This research has identified a range of emerging policies in local plans across South West England which strive to promote, encourage and support delivery of smart energy. The following represent a sample only of a rapidly developing policy area. Below, Box 5 describes Swindon Local Plan policy on low carbon and renewable energy, and Box 6, Bristol City Council's draft policy CCS2, which sets out a comprehensive approach to delivering zero carbon ready development.

Box 5: Swindon Local Plan (2015)

The Swindon Local Plan includes a single policy on low carbon and renewable energy. Its focus is spread across four parts:

a. Appropriate renewable and low carbon energy infrastructure which has benefits for local communities and the local economy will be encouraged and supported. Proposals for low carbon and renewable energy infrastructure, including large-scale freestanding installations, will be assessed under national policies and against the following:
   - Social and economic benefits (including local job creation opportunities);
   - The impacts on, and benefits to local communities; and, environmental impact; and
   - Any heat produced as part of a renewable energy or combined heat and power (CHP) installation should be productively used on-site or linked to a district energy network. Progress will be measured against a local low carbon electricity target of 200MWe by 2020.

b. A locally delivered modular district energy network shall be enabled and supported which is:
   - Focused around areas of high and constant heat demand; and
   - Capable of incorporating additional low and zero carbon energy sources and generation technologies e.g. biomass, waste and combined heat and power.

c. Energy efficiency and low carbon energy generation schemes brought forward by communities, or with major community benefits, will be encouraged and supported in principle.

d. Proposals for wind turbines, including any ancillary buildings and structures, shall be permitted only where there is no unacceptably adverse impact due to noise, shadow flicker, amplitude modulation, reflected light or electronic disturbance on:
   - The built and natural heritage;
   - And/or the amenity of properties;
   - And/or areas important for tourism or recreational use of the countryside; and
   - Visual impact shall be minimised through siting, landscaping, design and use of materials.

Neighbourhood Plans

Neighbourhood planning was introduced the Localism Act 2011. Neighbourhood Development Plans (Neighbourhood Plans), Neighbourhood Development Orders and Community Right to Build Orders allow local communities the right to shape development in their areas. Once examined and agreed by the local community, the neighbourhood plan becomes part of the statutory development plan.

Because neighbourhood plans can form part of a development plan, it is essential that the approach to, and wording of policies, is accurate and in conformity with strategic local policy. Plan policies must be related to land use and, although smart energy is not a common feature of neighbourhood planning, there are numerous examples of how neighbourhood plans encourage ‘smart’ energy as part of development, including policies for renewable energy, energy efficiency and sustainable transport.[37]

Box 6: Bristol Local Plan Review (March 2019)

Bristol City Council's draft policy CCS2 sets out a comprehensive approach to zero carbon ready development and is worth reading in full. In relation to heating systems, the draft policy wording sets out a hierarchy for new development.

New development will be expected to demonstrate that heating systems have been selected in accordance with the following approach:

- Where possible, connection to an existing classified heat network or a new classified heat network from the point of occupation;
- Where it is likely that existing or proposed heat networks will grow, designing development with a communal heating system which could connect in the future;
- Elsewhere, employing sustainable alternatives to heat networks such as individual renewable heat or communal renewable/low-carbon heat.

Classified heat networks are defined as:

> **'Classified heat networks' include those being developed by Bristol City Council and third party networks that meet certain requirements including:**
>
> - **Compliance with appropriate technical standards (presently the CIBSE code of practice);**
> - **They are powered by renewable/low carbon sources or are on a clear timeline and technology pathway towards decarbonising the heat provided by the energy centre in line with the council's aspiration for the city to be run on entirely clean energy by 2050 and carbon neutral by 2050;**
> - **They offer heat and/or cooling services at a fair and affordable price to the consumer;**
> - **They provide annual reporting on their performance and carbon content.**

Box 7, below, describes how a parish council in Sussex framed a development plan compliant policy to promote small/domestic scale renewable energy provision within its Neighbourhood Plan area

Box 7: Kirdford Parish Neighbourhood Development Plan

The Kirdford Parish Neighbourhood Development Plan was prepared by the Parish Council. It was adopted by the South Downs National Park Authority on 12 June 2014 and Chichester District Council on 22 July 2014. The plan includes a single policy on renewable energy, Policy E1 that is intended to "encourage and support the provision of small/domestic scale renewable energy provision within the Plan area". The policy text explains how proposals for the development of, or associated with small/domestic scale renewable energy facilities, will be supported, provided that it can be shown that the activity;

Would not conflict with the Policies of the NDP and in particular:

I. Would not adversely affect areas which are of nature conservation importance.

II. Would not adversely affect the quality and character of the landscape; and iii. Would not result in irreversible loss of the best and most versatile agricultural land.

III. Would not adversely affect the amenities or safety of local residents or other users of the countryside, and;

IV. Could be satisfactorily accommodated on or close to the existing rural road network without the need for significant changes, which would affect the character of the surrounding area.

Summary

Disconnect between policy and opportunity

With only a few exceptions, English planning policy lags behind both the opportunities offered by an increasingly mature and technologically advanced smart energy market, and the devolved nations. Based on current progress it is unlikely that English local planning authorities can achieve the pace of change needed to deliver the scale of clean energy development in the time available to meet the twin imperatives of the UK's legal commitment to decarbonise, and the Clean Growth Strategy to harness economic opportunities from growing the low carbon economy.

Action is therefore needed to lift the pace of planning to mobilise forward-looking approaches to development that proactively drive forward delivery and progress in the smart energy sector, or at the very least, keep up with emerging opportunities. Some of these, such as solar and wind generation and decarbonisation of buildings, are already well understood. Others, such as battery storage, electrification of transport, and local heat networks, are emerging. Others are still to emerge

What does the transition to smart energy need?

The above discussion highlights two key issues that are central to this research.

Firstly, the disconnect between ambition at the national and the local level to deliver smart energy. Local government needs the full support of a strong national policy agenda to deliver the smart energy future expressed by national energy and industrial policy. At present, the ambition to deliver the energy transition that is set out in national planning policy in England and Northern Ireland lags significantly behind that demonstrated by planning policy in Scotland and Wales.

Secondly, local policy makers face a challenge to frame and draft robust policy that provides certainty for development at the same time as addressing unknowns within the rapidly developing smart energy sector.

There is a need for stable and supportive national policy, greater sectoral integration, and resourcing of planning to ensure flexibility to address the required transition to a clean energy economy across the UK.

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For more information and materials relating to the RTPI's work on smart energy systems, please see: www.rtpi.org.uk/smartenergy.

For more information about the RTPI's wider climate change research programme, please see :www.rtpi.org.uk/climatechange.

Alternatively, you can contact the RTPI research team at: Research@RTPI.org.uk.

Royal Town Planning Institute,
41 Botolph Lane, London EC3R 8DL.

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