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Spatial Approaches to Local Energy Planning

Case study: Bristol

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This resource is part of the Spatial Approaches to Local Energy Planning (SALEP) suite

This resource is part of the RTPI's SALEP (Spatial Approaches to Local Energy Planning) suite of guidance, analysis and in-depth case studies on integrating energy planning with town planning across the UK. It was produced in collaboration with Regen.

For more information and access to the rest of the suite, please visit the [SALEP webpage](#).

Authors

This document was produced by Regen with input from the RTPI.

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1. Case study summary

- Bristol has a strong record of action on energy and climate change, driven by council initiatives and private investment. This includes Bristol City Leap Energy Partnership, which is a collaborative 20-year public-private partnership involving over £750 million of investment in low-carbon energy infrastructure projects.
- In 2024, the city started to progress a Regional Climate Investment Plan, with consultancy support, to guide local energy planning across Bristol and the wider West of England region. This plan is effectively Bristol's version of a Local Area Energy Plan (LAEP).
- Bristol has a long history of using town planning to drive forwards its decarbonisation aims, both through the 2011 local plan and through more pragmatic approaches, such as Supplementary Planning Documents (SPDs), Local Development Orders (LDOs) and planning conditions. With an energy plan in development and the long-awaited local plan refresh in progress, there are extensive opportunities to further integrate energy and town planning in Bristol.

2. Key insights from this case study

- **The value of creating hooks in town planning policies:** Bristol recognises the importance of embedding flexible policy wording—or “hooks”—into its local plan. This approach ensures that town planning remains coherent and adaptable to evolving energy priorities.
- **Use of town planning tools:** SPDs have emerged as a practical tool in Bristol's energy planning, enabling the council to address specific energy infrastructure needs in a flexible and responsive manner, facilitating investment in energy and heat infrastructure as part of regeneration. Planning conditions and LDOs have also been utilised to help facilitate heat network development.
- **Ongoing involvement of the town planning team:** To date, in Bristol there has been limited consideration regarding how the Regional Climate Investment Plan would integrate with town planning, although there is recognition that this will be important going forward.

3. Background: energy and heat planning in Bristol

Bristol has a longstanding commitment to decarbonisation, driven by council initiatives and private investment. The city's commitment is exemplified by the [One City Climate Strategy](#),¹ which sets a vision for Bristol to become carbon neutral and climate resilient by 2030.

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Action in Bristol has progressed through innovative projects including the Bristol City Leap Energy Partnership, which is a collaborative 20-year public-private partnership involving Bristol City Council, Ameresco, and Vattenfall Heat UK, focused on reducing carbon emissions and achieving net zero by 2030. This project involves over £750 million of investment in low-carbon energy infrastructure projects, including renewable energy generation, heat networks and energy efficiency upgrades, as well as a focus on local jobs, supply chains and social value creation. This has not only supported citywide decarbonisation but also created a £1.5 million Community Energy Fund. Jointly financed by Ameresco and Vattenfall, this fund provides grants and loans to support community-led energy projects, enabling local groups to take an active role in shaping Bristol's energy transition.

In 2024, the city started to progress a Regional Climate Investment Plan, with consultancy support, to guide local energy planning across Bristol and the wider West of England region. This plan is essentially Bristol's version of a LAEP. The plan also forms part of a new wider 'Mission Net Zero' project, which aims to include business and investment growth, collaboration across sectors, capacity building and to demonstrate projects. Bristol is also taking a focus on community engagement through developing Community Climate Action Plans. Six have been developed to date and there are aims to create 12 more, ensuring that Bristol's low-carbon goals reflect the diverse needs and priorities of its residents.

4. Bristol's pragmatic approach to integrating energy into town planning

Bristol has an outdated local plan in place, with the current core strategy adopted in 2011. In this context, efforts to align energy and town planning reflect a pragmatic and adaptive approach. SPDs have been used to help bridge gaps between long-term policies and evolving energy strategies. Although SPDs lack the statutory weight of local plans, their adaptability has made them valuable

¹ Bristol City Council, 'One City Climate Strategy', Bristolonecity, 2020 < <https://www.bristolonecity.com/wp-content/uploads/2020/02/one-city-climate-strategy.pdf> > [accessed 21/05/2025]

for addressing emerging development opportunities and tailoring energy solutions to specific areas.

Bristol has used SPDs to encourage developers working on large-scale development projects to collaboratively plan for shared energy infrastructure. For instance, in cases where several large developments are clustered within close proximity, the council has asked the developers to outline plans for a shared energy centre, that could then connect to the heat network. SPDs have also ensured that energy and heat have been considered as part of a broader area regeneration framework. For example, the City Centre Spatial Framework includes designated locations for energy centres, such as the Castle Park energy centre. This site now hosts England's largest water-source heat pump, showcasing the potential of SPDs to integrate ambitious energy projects within urban regeneration plans.

Planning conditions have also been used as a method for ensuring energy and heat development forms part of regeneration. A recent example is the Galleries redevelopment project, where the council required the inclusion of an energy centre to connect to the city's district heat network.

5. Energy planning and delivery teams working together to deliver heat networks

Bristol's approach to heat network planning has evolved over time, transitioning from a council-led initiative to a more collaborative public-private sector model under the City Leap Energy Partnership. The initial stages of Bristol's heat network were developed by the city's energy service team, which was later incorporated into the City Leap Energy Partnership with Vattenfall as a key partner. This transition marked a shift from council-managed strategic decision-making to a more commercially driven approach, guided by Key Performance Indicators (KPIs) established in the City Leap contract. These KPIs ensure that the network adheres to agreed standards such as achieving decarbonisation goals, maintaining cost-effectiveness, and prioritising strategic areas for expansion.

5.1 Governance and policy integration

The council identified that collaboration has become more complex since their energy service team transitioned to become part of the City Leap Partnership, meaning they no longer work directly within the council. This shift has impacted the ease of coordination, as external entities operate with distinct priorities and workflows, requiring new mechanisms to ensure alignment with council objectives. While City Leap coordinates much of this work, stronger connections between town planning and energy teams could enhance further policy integration. A key priority here is ensuring that the council's decarbonisation aims remain central to heat network delivery.

5.2 Energy centres and the role of council land

Energy centres are a critical component of the heat network, providing hubs for heat generation and distribution. Bristol has leveraged its status as a major landowner to support the development of these centres. Surplus or vacant council-owned land can be put forward as potential sites for energy centres with Vattenfall, who are leading the development of the heat network, assessing options and providing resources for development. This collaborative approach enables the efficient use of available land while aligning energy infrastructure with urban growth.

5.3 Use of a Local Development Order (LDO)

Bristol City Council has implemented a LDO to facilitate the installation of the heat network. This LDO permits the installation, maintenance and operation of heating transmission and distribution systems, including underground pipes and ancillary infrastructure, within designated areas of the city. By simplifying the planning process, the LDO aims to accelerate the deployment of the heat network.

6. Development of the new local plan

Bristol's emerging draft local plan reflects significant lessons learned from the city's 2011 core strategy. One of the key insights driving the new local plan is the recognition that local plans, which are updated infrequently, often struggle to accommodate fast-moving developments in energy infrastructure. To address this limitation, Bristol sees the local plan as complementary to more flexible and up-to-date energy planning documents such as the forthcoming Regional Investment Plan. While the local plan provides high-level guidance and policies, energy plans created through the Regional Investment Plan have the potential to offer detailed, dynamic insights that, while not statutory, can evolve alongside emerging energy needs and technological advancements.

Reflecting this perspective, the emerging local plan incorporates policies that encourage renewable energy projects, while enabling the flexibility to be adaptable to new technologies. While these policies are not highly specific, they create a supportive environment. For example, proposed policy NZC5 sets out the council's supportive stance on renewable energy generation and on improving the energy efficiency and sustainability of existing buildings. For renewables it specifies that:

“Proposals for the utilisation, distribution and development of new renewable energy capacity and energy storage, including large-scale freestanding installations, will be encouraged. The council will also support the expansion of heat networks in the city and their associated infrastructure”

And that:

“In assessing such proposals, the environmental and economic benefits of the proposed development will be afforded significant weight alongside considerations of public health and safety

and impacts on biodiversity, landscape character, the historic environment and the residential amenity of the surrounding area.”

7. Heat policy

The 2011 core strategy included policy BCS 14 which provided a hierarchy for heating and cooling that required developments near the city centre or along major routes to consider heat network connections. However, the absence of any feasibility studies for heat network connection was seen to have created an unnecessary challenge on assessing applications. In practice, many proposed developments were located too far from existing heat networks to make connections feasible, leading to inefficiencies and limited adoption.

The policy in the draft new local plan sets out a similar policy hierarchy for heating and cooling systems but with more policy detail, mandating connection to the heat network where available, creating a clear framework for integration into new developments. However, the council has learnt that feasibility studies for the heat network locations should be in place before new planning applications are asked to explore heat network connections; therefore the draft policy asks new large -projects (more than 100 homes or 10,000m² floorspace within or adjacent to areas of growth and regeneration) to undertake a feasibility study to consider whether a new heat network could be established.

Through incorporating these considerations into the planning process, Bristol ensures that heat network connections are viable for newly submitted applications. This step provides confidence to both developers and heat network operators through ensuring there is sufficient heat demand to justify infrastructure investments. This approach allows for greater adaptability, ensuring that policies remain relevant and effective as new developments arise and energy priorities shift. It also helps to join the dots between heat network expansion and town planning, ensuring that new infrastructure supports the city's long-term sustainability goals.

8. Development of the Regional Climate Investment Plan

Bristol's emerging Regional Climate Investment Plan represents a strategic approach to energy planning, designed to prioritise and create a pipeline of investible projects that align with the city's decarbonisation goals. While currently at a very early stage, the plan is being developed with external consultants, incorporating input from various stakeholders, including the council's town

planning and regeneration teams. The hope is that the plan will include a digital platform, providing a user-friendly interface for stakeholders.

9. Early integration of energy planning data

The team involved in developing the Regional Climate Investment Plan recognises the value of energy planning data although the exact incorporation with town planning is yet to be decided. The initial phases of the plan have involved a request for the council's town planning department to provide data on new developments, regeneration areas and other town planning elements. This foundational input ensures that energy priorities align with ongoing urban development, although the specific role of energy planning data within the plan's framework is still being defined.

10. Interaction with the local plan

To date, there has been limited consideration regarding how the Regional Climate Investment Plan would integrate with town planning. In fact, the interview undertaken for this case study acted as a catalyst for discussion and consideration of this issue. The council noted that although it has not yet been considered, it will be something important to explore, noting that there would likely need to be a piece of work undertaken to set out the interaction with the local plan. This reflected a recognition of the role of town planning as a key method of ensuring that projects prioritised through the Regional Climate Investment Plan are able to come forward.

As the Regional Climate Investment Plan develops, one of the key tasks will thus be ensuring that its goals and tools complement the town planning system effectively. The local authority recognises the need for more streamlined engagement with town planning to make sure that planners have access to the right data and information in the right format to help speed up the town planning process as much as possible. This may include things such as integrating a digital platform into planners' workflows.

11. Key recommendations from this case study

11.1 The value of creating hooks in town planning policies

Bristol recognises the importance of embedding flexible provisions—or “hooks”—into its local plan. These hooks allow newer documents, like the Regional Climate Investment Plan or updates to heat zoning strategies, to be read as part of the policy framework. This approach ensures that town

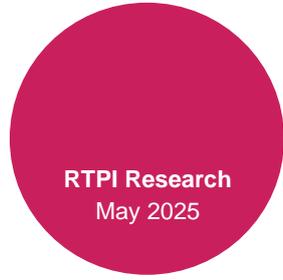
planning remains coherent and adaptable to evolving energy priorities.

11.2 Use of town planning tools

SPDs have emerged as a practical tool in Bristol's energy planning, enabling the council to address specific energy infrastructure needs in a flexible and responsive manner, complementing the overarching local plan. Planning conditions and LDOs have also been used to help facilitate heat network development. Such an approach has worked well in Bristol where large scale urban development is taking place – facilitating investment in energy and heat infrastructure as part of regeneration.

11.3 Ongoing involvement of the town planning team

To date, there has been limited consideration regarding how the Regional Climate Investment Plan will integrate with town planning, but a key recognition that emerged from the council during this research was that this integration with town planning will need to be a key consideration. The ongoing dialogue between town planning and energy teams will be crucial to refining these connections and creating a cohesive strategy.





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