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Research**

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REGEN

Spatial Approaches to Local Energy Planning

Case study: Leicestershire

The Royal Town Planning Institute (RTPI)

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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

- Leicestershire is developing its CAN (Collaborate to Accelerate Net Zero) Demonstrator project as part of the Net Zero Living programme. The CAN project is dedicated to accelerating Leicestershire's journey to net zero emissions.
- As part of this work, Leicestershire is collaborating with the Energy Systems Catapult to deliver eight Local Area Energy Plans (LAEPs) for the local authority districts within the region. As part of this process, there is an aim to create an open-source and dynamic digital tool for stakeholders.
- The local planning authorities within the region are keen to explore and understand how the LAEPs could be used to support local town planning. This is being driven by the cross-Leicestershire planners 'task and finish group'.

2. Key insights from this case study

- This case study reveals the enthusiasm of local planners to learn about the energy system and participate in the LAEP process as early as possible. To capitalise on this momentum, resources aimed at upskilling planners and bridging the gap between town planning and energy systems will be crucial.
- Planners have identified data sharing as a key opportunity to help ensure integration between the LAEP and town planning.
- This case study also reveals the need to ensure that the LAEP process is aligned with other policy changes and updates that are occurring such as Local Nature Recovery Strategies (LNRS).

3. Context: Leicestershire Collaborate to Accelerate Net Zero (CAN)

Leicestershire is a diverse rural county, home to a complex matrix of stakeholders and requiring a wide variety of actions to achieve its ambitious net zero targets. In response to these challenges, the county has launched the CAN demonstrator project, an initiative designed to transform Leicestershire's carbon reduction trajectory. By accelerating progress toward net zero emissions, this project aims to deliver long-lasting benefits that extend well beyond its completion.

Crucially, Leicestershire CAN is designed to foster collaboration among a wide range of actors, developing coordinated programmes that target priority areas of emissions. The partners span public and private sector organisations, academic institutions and community energy groups. As part of this, Leicestershire CAN is working to produce eight LAEPs.

4. Development of the Local Area Energy Plan (LAEP)

Leicestershire County Council, through the Leicestershire CAN process, embarked on LAEPs to support its mission of driving decarbonisation and to foster local engagement in the low-carbon energy sector. The primary objective of these LAEPs is to focus on delivering actionable projects that contribute significantly to the region's energy transition.

Developed in collaboration with the Energy Systems Catapult (ESC), the LAEP initiative encompasses all eight local authorities in Leicestershire: Blaby, Charnwood, Harborough, Hinckley and Bosworth, Melton, Northwest Leicestershire, Oadby and Wigston, and Leicester City Council. This approach ensures plans will be tailored to respond to the characteristics and needs of each area.

As of January 2025, the modelling phase of the LAEP process has been completed. The process used an innovative modelling approach to provide scenarios representing the best value in terms of cost-effectiveness while achieving significant progress toward net-zero carbon emissions. The next phase involves translating these scenarios into actionable plans for each local authority, with finalised LAEPs anticipated by mid-summer 2025. Accompanying data visualisation tools, designed to enhance public and stakeholder engagement, are expected to be ready by late summer or autumn.

The outputs of the LAEPs aim to:

- **Offer cost-effective and impactful energy solutions:** by narrowing down thousands of scenarios, the LAEP process identifies interventions that achieve maximum carbon reduction at minimum financial cost.
- **Support informed decision-making for local authorities:** the plans provide tailored guidance for each local area based on energy system realities, (although detailed land-use considerations are not explicitly included).
- **Provide an evidence base for energy-related policy development:** the LAEP outputs will provide resources for shaping energy policies that align with regional and national decarbonisation goals.

5. Integration of the LAEP with local town planning

5.1 Local planner involvement in LAEP development

The LAEP model itself incorporates data provided by planners, including information on future allocations and developments outlined in existing local plans. This integration of data ensures that the energy planning process is grounded in the realities of local town planning.

A steering group oversees the LAEP initiative, with each local authority represented by an environment officer. Additionally, a planning officer represents the cross-Leicestershire planning group, providing a crucial link between town planning and energy planning. Planners emphasised the value of being involved in the process as early as possible: *"the earlier we get involved, the more effectively we can understand how it links to local town planning"*.

This involvement has proven to be a valuable learning experience. The town planning representative on the steering group highlighted significant progress in understanding what energy planning entails and how it translates into tangible, on-the-ground projects. This growing familiarity is laying the groundwork for closer integration between energy and town planning.

Specialised workshops involving the cross-Leicestershire town planning group have also been a key impactful tool. Workshops with organisations like National Grid Electricity Distribution and Severn Trent were identified by planners as particularly useful. The interview that Regen undertook for this research project also formed part of an upskilling workshop for local planners – to start an exploration of how LAEP outputs can inform local plans. It is expected that the group will undertake further workshops and discussions on this topic.

Capacity challenges remain a key concern. Another key challenge raised by planners is the need for shared language between disciplines. Planners, for example, do not typically use terms like "low-risk" or "low-regret," which are common in energy planning. Developing a shared glossary could enhance communication and mutual understanding, further strengthening the collaboration between energy planners and local town planning teams.

5.2 LAEP integration with local plans

Planners across Leicestershire are eager to explore how the LAEPs can complement or feed into local plans. A key driver of this enthusiasm is the cross-Leicestershire town planning 'task and finish group'. This group, established and organised separately from the LAEP process and comprising representatives from all eight local authorities, serves as a vital platform for joint action and knowledge sharing. Regular group meetings enable collaborative problem-solving and alignment across districts on a range of town planning topics, including the LAEP.

The group has demonstrated significant interest in the LAEP by proactively engaging with the CAN team. They have sought to understand how the findings of the LAEP can be leveraged to benefit

local town planning teams, particularly as they update their local plans. This proactive engagement from planning officers reflects a desire to ensure the LAEP findings are actionable and relevant for policy-making.

However, the integration of LAEPs with local town planning processes in Leicestershire has not been extensively considered to date. There has been limited consideration of how the LAEP team could effectively support and feed into the development of local plans. Despite this, interest from local authorities is growing. Three districts have already approached the LAEP team to request support in updating their local plans, signalling a strong appetite for collaboration.

The Leicestershire CAN team recognise the potential for innovation in this space and are keen to advance efforts to integrate energy planning with town planning. They are keen to explore these links further, developing processes that strengthen the connection between LAEPs and local town planning. Additionally, the council is eager to learn from best practices and successful integrations in other areas, demonstrating a clear ambition to innovate and lead in this field.

One challenge in aligning LAEPs with local plans is the mismatch in timelines. Until the final LAEP outputs are ready, it can be difficult to share interim findings. However, planners are already keen to consider how they may be able to use the outputs in the future. Another identified obstacle has been the lack of clear guidance or publicly available resources on how LAEPs and local plans can or should be linked. This knowledge gap has made it difficult for both the LAEP team and local planners to fully understand what to include in their processes and how to align efforts effectively.

5.3 Using data from the LAEP to support town planning

Looking ahead, the LAEP team envisions significant potential for the plans they develop to serve as valuable resources for local planners. Each LAEP will include detailed documentation projecting energy infrastructure needs by 2050, such as wind, solar, household retrofits, and heat networks. By evaluating over 2,500 scenarios, the LAEP process identifies the most cost-effective and impactful interventions for Leicestershire, highlighting low-risk, low-regret options. This evidence-based approach could potentially guide planners in determining spatial allocations, such as identifying suitable locations for renewable energy projects. However, there is a lack of clarity on how this may happen.

Leicestershire planners identified the potential value that data from the LAEPs could provide in supporting their work. Specifically, data that identifies opportunities for renewable energy development would be particularly beneficial. Currently, town planning teams invest substantial resources in commissioning studies to identify such opportunities. If the LAEP process can deliver this data, it would eliminate the need for separate studies, reducing costs and improving efficiency for local town planning authorities.

Planners have emphasised that the format in which data is provided is critical to its usability. Key considerations include:

- **Spatial maps and GIS visualisations:** these formats are key for aligning energy planning

data with local town planning needs and ensuring compatibility with existing planning tools.

- **Mapping software compatibility:** spatial information should be presented in commonly used formats. To support this integration, the council has adopted new mapping software.
- **Excel datasets:** tabular formats remain useful for conducting specific analyses and integrating data into broader town planning workflows.

6. Community engagement

Community engagement and involvement has been a central component of the Leicestershire CAN process, though it is not directly linked to town planning considerations. As part of the CAN initiative, an advisory service is being launched to support businesses, communities and residents in understanding and engaging with CAN's objectives. Additionally, a dedicated work package on community energy aims to establish a new community energy organisation in each area. This will involve training and upskilling community energy representatives to lead and deliver local energy projects, fostering grassroots involvement in the energy transition.

While the current focus is on these community projects and involvement in the LAEP, there may be opportunities for town planning in the future, particularly as the wider community becomes more involved and knowledgeable on energy issues. The local authority is open to exploring how town planning methods could support community energy projects in the future, such as by considering new town planning policies or utilising neighbourhood planning approaches.

7. Key recommendations from this case study

7.1 Building on planners' enthusiasm and involvement in the LAEP

This case study reveals the enthusiasm of local planners for learning about the energy system and participating in the LAEP process as early as possible. To capitalise on this momentum, resources aimed at upskilling planners on energy, upskilling energy officers on town planning and bridging the gap between town planning and energy systems are crucial. Capacity-building initiatives, such as workshops, training sessions, and shared glossaries will be key.

7.2 Prioritising data and knowledge sharing

Planners have identified data sharing as a key opportunity. By providing comprehensive, accessible data—particularly regarding renewable energy opportunities—LAEPs can potentially reduce the need for costly renewable energy studies commissioned by local town planning teams. Emphasising data usability through formats such as GIS visualisations, Excel spreadsheets, and mapping tools can further strengthen the LAEP initiative's relevance to planners.

Recognising the resource and capacity limitations of local town planning teams, it is essential to

continue developing tools and processes that simplify energy planning integration. Ensuring that planners have access to the right data, training and support will help address these challenges and enable more effective collaboration.

7.3 Linking LAEPs with other policy initiatives

The LAEP process should be integrated into a wider suite of evidence and policy tools available to planners. For instance, other interventions, such as LNRSs, present similar opportunities for creating shared, evidence-based resources. Planners need guidance on how these tools can work together to provide a cohesive evidence base for policy development and decision-making.



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