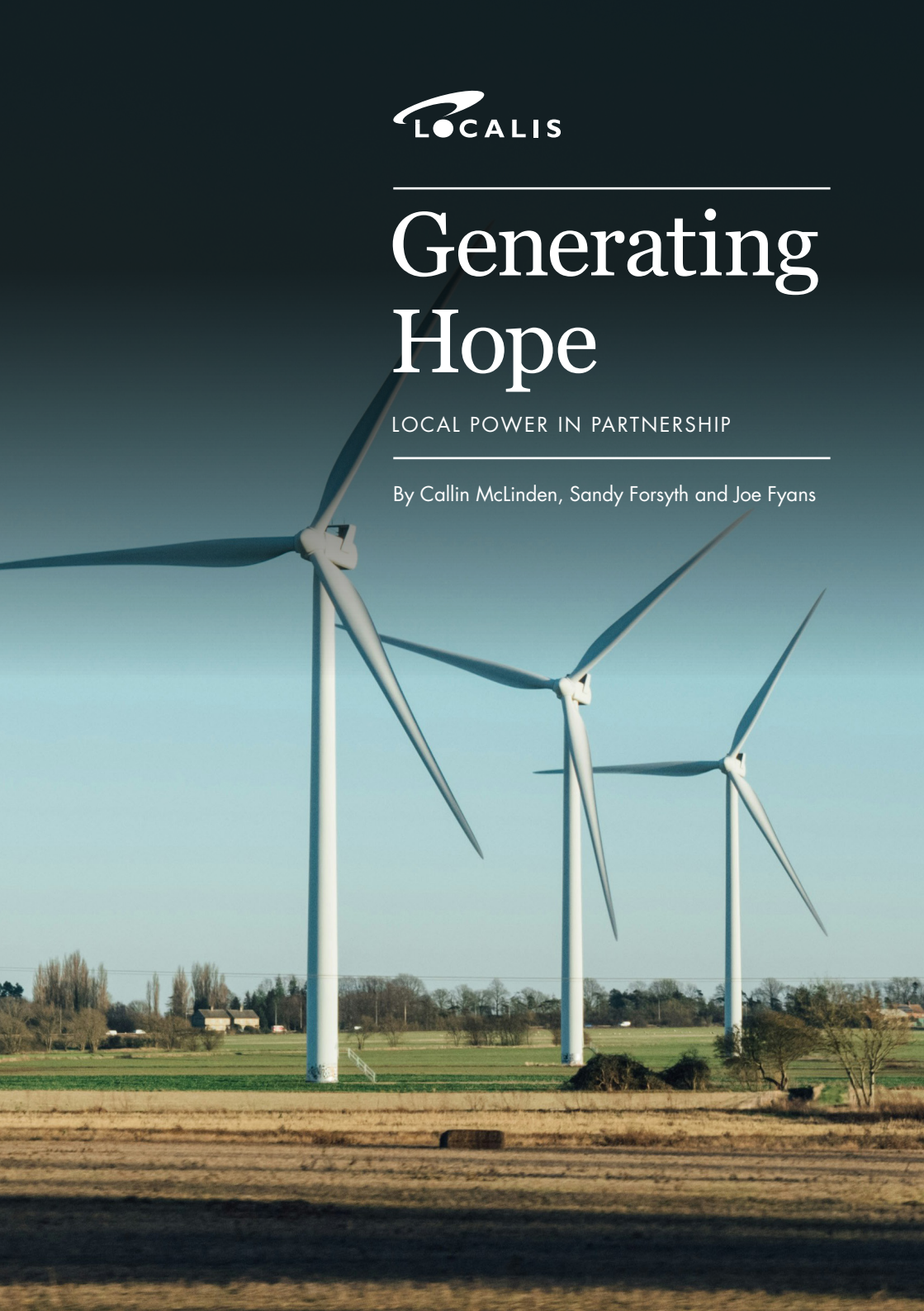
LOCALIS

Generating Hope

LOCAL POWER IN PARTNERSHIP

By Callin McLinden, Sandy Forsyth and Joe Fyans



About Localis

Who we are

We are a leading, independent think tank that was established in 2001. Our work promotes neo-localist ideas through research, events and commentary, covering a range of local and national domestic policy issues.

Neo-localism

Our research and policy programme is guided by the concept of neo-localism. Neo-localism is about giving places and people more control over the effects of globalisation. It is positive about promoting economic prosperity, but also enhancing other aspects of people's lives such as family and culture. It is not anti-globalisation, but wants to bend the mainstream of social and economic policy so that place is put at the centre of political thinking.

In particular our work is focused on four areas:

- **Decentralising political economy.** Developing and differentiating regional economies and an accompanying devolution of democratic leadership.
- **Empowering local leadership.** Elevating the role and responsibilities of local leaders in shaping and directing their place.
- **Extending local civil capacity.** The mission of the strategic authority as a convener of civil society; from private to charity sector, household to community.
- **Reforming public services.** Ideas to help save the public services and institutions upon which many in society depend.

What we do

We publish research throughout the year, from extensive reports to shorter pamphlets, on a diverse range of policy areas. We run a broad events programme, including roundtable discussions, panel events and an extensive party conference programme. We also run a membership network of local authorities and corporate fellows.

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Research roundtable participants

Localis held two research roundtables to support this research. We would like to thank the participants, listed below, for their time and input.

- Patrick Allcorn, Head of Local Net Zero – Demonstration and delivery, Department for Energy Security and Net Zero
- Rashid Bhayat, CEO, Positive Youth Foundation
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- Dr. Daire Casey, Chair, ADEPT Energy & Clean Growth Working Group
- Matt Clayton, Strategic Lead – Children in Care, Children with Disabilities and Care Leavers, Coventry City Council
- Mark Daniels, Commercial Director, E.ON UK
- Adam Denny, Asset and Planning Manager, Citizen Housing
- Tom Elliot, Practice Manager – Business Model Innovation, Energy Systems Catapult
- Aaron Gould, Head of Research, The Association for Decentralised Energy
- Kate Hand, Head of Climate Change, London Councils
- Rachel Jones, CEO, Act on Energy
- Chetan Lad, Head of UK Strategy, E.ON UK
- Poppy Maltby, Head of Local Energy, Regen
- Dan Meredith, Senior Manager – External Affairs, E.ON UK
- Cllr. Jim O'Boyle, Cabinet Member for Jobs, Regeneration and Climate Change, Coventry City Council
- Cllr. Scott Patient, Deputy Leader and Cabinet Member for Climate Action and Housing, Calderdale Council
- Carl Perrin, Associate Pro Vice Chancellor, Coventry University
- Imogen Rattle, Research Fellow in Local Low Carbon Industrial Strategy, University of Leeds
- Andrew Richmond, Adviser – Climate Change, Local Government Association
- Jo Wall, Senior Strategy Director, Local Partnerships

Executive summary

The UK has made strong progress in decarbonising its energy supply, driven by legislation such as the Climate Change Act and the overarching target of achieving net zero emissions by 2050. The current government has doubled down on these ambitions, setting a goal of 'clean power' by 2030 and establishing Great British Energy (GB Energy) to drive progress through investment in and development of clean energy projects. The Local Power Plan, a component of GB Energy, aims to support local and combined authorities, as well as community energy groups, through funding and assistance for small and medium-scale renewable energy projects. With detail on the Local Power Plan as yet unsubstantiated, this report looks at how the plan can best build on best practice and overcome local barriers to drive decarbonisation of energy at the level of place.

Challenges and opportunities

Local authorities play an essential role in achieving net zero, as a significant portion of UK carbon emissions fall within their scope of action. Councils can drive decarbonisation as large local employers and estate owners, alongside their role as the primary manifestation of the state in the daily lives of residents and businesses. However, the approach from central government in recent years has been inconsistent, with support for councils to deliver on this agenda often underfunded and piecemeal. The same could be said for community energy generation, which is a viable approach for a resilient, low-carbon energy future, fostering local energy autonomy and redistributing economic benefits. Although successive governments have recognised the value of community energy, a sustained and properly funded policy agenda for its advancement has yet to be realised.

While the level of government funding is at the heart of the problem at local level, the issues caused play out in a variety of ways, requiring a nuanced and multifaceted policy solution. Multiple barriers hinder the further deployment of renewable energy, including technical challenges such as grid infrastructure unpreparedness and skills gaps within local authorities, financial obstacles such as high upfront costs and investor perceptions of risk, and political barriers such as potential public opposition and a lack of clear policy support. The solutions to these problems must emphasise the potential for renewable energy to address socio-economic challenges related to the energy trilemma of sustainability, security and affordability. These include:

- **Tackling fuel poverty** through energy efficiency improvements and income support.
- **Enhancing energy security** by reducing reliance on fossil fuels.
- **Boosting economic growth and productivity** through investments in the net-zero economy.

Power, partnerships and planning

Overcoming such obstacles will require a framework which recognises the roles of both the public and private sector at local level. Local authorities can act as place leaders, landowners, and development authorities, leveraging their powers to promote renewable energy projects and incorporate energy considerations into development plans. Public-private partnerships (PPPs) are crucial for mobilising resources, expertise, and funding for this effort and for smaller, community-led initiatives, bridging the gap between national ambitions and local action. Applying a framework of strong local governance and in-built flexibility for innovation, partnership working can accelerate decentralisation and decarbonisation of the UK's energy system.

Strategic, long-term energy partnerships are being developed by councils and partners as a transformative approach to decentralising and decarbonising the UK's energy system, empowering communities, reinvesting profits locally, and addressing socio-economic disparities. Strategic local energy partnerships bypass traditional barriers to innovation by fostering direct collaboration among local energy stakeholders. This helps to circumvent fragmented decision-making structures and lengthy tender processes, enabling agile and resilient responses to local energy challenges. The success of these partnerships hinge on their alignment with, and flexibility around, evolving policy at local and national level.

In delivering local power in partnership, planning is crucial. The government is committed to planning reform, aimed at unblocking supply and delivering 1.5 million homes. To achieve this goal, development must align with local stakeholder discretion and community needs, ensuring projects support local requirements – new, large-scale development offers an opportunity to inject environmental sustainability and energy efficiency into local areas and bring socio-economic benefits to communities. Effective energy planning, embedded in the broader framework of Local and Neighbourhood Plans, is essential for integrating these considerations into broader local strategies and ensuring sustainable development.

Finally, there is a need for national policy to take a pragmatic approach to overcoming political barriers at local level. Public opposition, or even the perception of it, can hinder renewable energy deployment. Locally, this means that councils need to balance public engagement with resource availability and the necessity for renewable energy development. Quantifiable benefits, such as job creation, local economic multipliers, and overall reductions in carbon emissions, must be documented and published to maintain public trust. At the local level, communities need material evidence that projects are delivering rather than merely serving as symbolic gestures. At central government level, it is crucial that the capital costs of achieving net zero do not become obstacles to public support. Alleviating the upfront burden of renewable capital infrastructure from energy bills is therefore both an economic and political imperative, especially with the ongoing cost of living crisis.

Recommendations: constructing a Local Power Plan

The establishment of GB Energy and the promise of a Local Power Plan have the potential to transform central-local relations in the energy transition. The recommendations below, drawn from the research carried out for this project, present some considerations for the key actors involved in the production and implementation of the Local Power Plan.

Enabling the Local Power Plan

Enabling the local power plan will require concerted action across departments, integrating the ambitions of GB Energy with the planning system changes from MHCLG, the overall net zero 'mission control' of DESNZ and the strategic spatial energy plan of the National Energy System Operator. Action must also accord with English devolution policy and facilitate the upskilling of actors at local authority and community level. To create the conditions for success at local level, central government should:

- Produce legislation to **formalise local area energy planning**, to ensure new development contributes to the energy transition whilst also gaining a clearer national picture of future grid demand.
    - This could involve integrating LAEPs with the Local Plan process, or ensuring that completed and approved Local Plans have a statutory LAEP attachment.
    - These plans should feed into future iterations of the National Energy System Operator's strategic spatial energy plan.
    - Frameworks for producing LAEPs should not be overly restrictive, allowing for local variation.
- **Consolidate funding streams** for clean energy projects in local areas.
- **Build community capacity** to engage with energy projects.
    - This would involve working with the community and voluntary sector to build government-funded projects for training and development of community groups looking to get involved with decentralised energy.
- **Establish regional energy data centres** to help local authorities make evidence-led plans.
    - This initiative could connect with the plans for subregional data analytics centres headed up by strategic authorities, as announced in the English Devolution White Paper.

- **Streamline the application process for grid connection** to help communities realise the benefits faster.
- **Invest in local government skills programmes** to allow councils to recruit, train and retain staff who can engage with the energy market.

Delivering the Local Power Plan

The delivery of a successful Local Power Plan will require concerted action across sectors and levels of government.

- Central government should:
  - **Provide local authorities with support in procurement and contracting** to access complex markets.
    - This could involve utilising the Local Net Zero Hub network to extend government support for procurement officers and policy teams in developing tenders, specifications and contracts.
  - **Provide capacity support for planning applications**, to accelerate the planning process for new local infrastructure.
    - The technical detail of some energy infrastructure planning applications prevents timely resolution. A central government funded support hub could act as a mechanism to address this problem.
  - Build on successful examples of strategic energy partnerships to **produce a contracting framework** for local authorities looking to procure long-term public-private partnerships.
- Local government should:
  - **Provide robust data and measurement mechanisms** for monitoring and evaluation.
  - **Target quantifiable benefits** to local communities.
  - **Develop financial instruments** such as Community Municipal Investments and Green Bonds to help support local communities.
  - **Embed Green Public Procurement** in their procurement of energy services and utilities.

- Private sector partners should:
  - **Practice meaningful community consultation** over the direction of projects and funding.
  - **Prioritise local job creation** in delivering projects.
  - **Work with a local supply chain** to ensure the retention of economic benefits.

Making the Local Power Plan work

To ensure that the Local Power Plan is politically viable at place level, government should consider **moving the capital burden of renewable infrastructure** away from household bill levies. The government should also consider the **reintroduction of feed-in tariffs** to help enable participation.

CHAPTER ONE

The context of the Local Power Plan

At the beginning of 2024, the UK officially became the first major economy to halve its greenhouse gas emissions, marking a rise from seven to 40 percent in the share of electricity generated by renewables since 2010[1]. However, dependency on fossil fuels for total energy use across the UK remains above 70 percent[2], highlighting the need for the accelerated deployment of low- and zero-carbon electricity sources in tandem with a range of transformations across all sectors, from the built environment to transportation, as part of a wider commitment to net zero emissions. Electricity demand is only set to increase as more sectors make the shift to electricity. It is in this context that Great British Energy and its Local Power Plan are being introduced; at a pivotal juncture for the country at large and for relationships between central and local government.

1 Department for Energy Security and Net Zero (DESNZ) (2024) – UK first major economy to halve emissions
2 DESNZ (2024) – Energy Trends: UK total energy

Key points

- The UK has made consistent progress in decarbonising its energy supply, setting targets through the Climate Change Act and subsequent legislation, aiming for net zero emissions by 2050 and 'clean power' by 2030.
- Great British Energy (GB Energy) has been established to drive investment and development in clean energy projects, with a focus on energy independence, security, and reduced consumer bills. However, initial funding may be insufficient to meet its goals.
- The Local Power Plan, a component of GB Energy, aims to support local and combined authorities, as well as community energy groups, through funding and assistance for small- and medium-scale renewable energy projects. Its founding statement emphasises community benefits, skilled job creation, and local ownership in the clean energy transition.
- Local authorities are recognised as essential in achieving net zero, with a significant portion of UK carbon emissions falling within their scope of action. However, central government's position on the local role has been inconsistent.
- Community energy generation is a viable approach to a resilient, low-carbon energy future, fostering local energy autonomy and redistributing economic benefits. Previous initiatives faced challenges like regulatory complexity and financial instability, but the Local Power Plan aims to address these issues by institutionalising community participation and providing structural support.

1.1 Great British Energy and the green transition

The UK has been successful in the initial stages of decarbonising energy and is currently in the midst of institutional and regulatory renewal to ensure that the push to net zero remains on track. This reorganisation includes reforms to governance of the energy grid brought forward by the previous government, but is most significantly embodied in the election of the Labour party in 2024 on a manifesto which included a commitment to establish a state-owned energy company.

1.1.1 Electrification and the net zero targets

Progress towards the decarbonisation of energy supply in the UK has been consistent, if varied, and marked by consecutive transformations in the policy environment. The contemporary policy context for the green transition was initiated by the Climate Change Act 2008 (CCA), which legislated that the UK would reach net greenhouse gas emissions 80 percent below the 1990 baseline by 2050. The CCA also necessitated the publication of five-year carbon emissions budgets[3]. The carbon budgets are published by the Climate Change Committee (CCC), the most recent seventh carbon budget outlines a path to reducing emissions by 75 percent through reductions across sectors of the economy like transport, construction and agriculture[4].

Up to the present, the UK has managed to achieve each of its carbon budgets, although the CCC has noted that the majority of reductions to 2022 have been in the electricity and fuel supply sectors, highlighting the holistic approach that is needed to reach net zero with the reduction of industry, waste, transport, agriculture, land use, and buildings emissions[5]. The Energy Act 2013 expanded upon the aims of the CCA, introducing a suite of regulatory instruments and, in 2019, the government overwrote the CCA's target, codifying that the UK was to reach net zero emissions by 2050. In the following year an interim target of a 68 percent reduction in emissions was set for 2030 as the UK's Nationally Determined Contribution towards the Paris Agreement[6].

The net zero strategy of 2021, *Build Back Greener*, proceeded from the government's 2020 *Ten Point Plan for a Green Industrial Revolution*, which itself aimed to leverage government investment to catalyse private sector interest in new green industries. The 2021 strategy took a consumer-first approach, balancing net zero commitments with

3 Legislation.gov.uk (2008) – Climate Change Act 2008
4 Climate Change Committee (2025) – Seventh Carbon Budget
5 Climate Change Committee (2024) – Progress towards reaching Net Zero in the UK
6 House of Commons Library (2024) – The UK's plans and progress to reach net zero

commitments to keeping costs for consumers low and benefits for businesses high, without pushing uncomfortably against "the grain of consumer choice"[7]. The High Court later ruled that the provisions of the strategy were inadequate in meeting the UK's net zero targets[8].

The Energy Act 2023 cemented into legislation the Sunak Conservative government's plans for energy security and net zero, entitled *Powering Up Britain*, which opted for action on more nascent technologies such as hydrogen production and carbon capture, as well as the delivery of Great British Nuclear and the acceleration of renewables deployment[9]. The Act also supported the policies introduced by the *British Energy Security Strategy*, which reacted to post-pandemic energy costs and the Russian invasion of Ukraine with the intention of establishing better energy security and resilience for the UK, an outcome that has continued to be central to net zero policy in the following years.

Importantly, as a part of the Energy Act, the National Energy System Operator (NESO), a publicly owned body, replaced the privately owned National Grid Electricity Operator (ESO) after the government acquired it from National Grid plc for £630 million[10]. NESO integrates electricity and gas network planning under one singular entity, aiming to accelerate the UK's transition to net zero, bolstering energy security, and reducing consumer bills. The operator will oversee the integration of new energy projects into the grid, working towards streamlining connections to reduce delays and prioritise "ready and needed" projects[11].

Most recently, elected on a manifesto that held climate change mitigation and energy security at its centre, the government has pushed for fully "clean power" by 2030, where clean energy sources produce at least as much power as the country consumes in total over a whole year, and account for 95 percent of the UK's total generation[12]. This commitment accelerates the previous ambition, set out by the government in 2021, that all electricity be generated by clean sources by 2035[13]. Electricity met

7 HM Government (2021) – Net Zero Strategy: Build Back Greener
8 House of Commons Library (2023) – Tackling the energy trilemma
9 HM Government (2023) – Power Up Britain
10 Green (2024) – UK government establishes National Energy System Operator
11 Ofgem (2025) – Clean power by 2030 one step closer as proposed new, fast-track grid connections system is unveiled
12 DESNZ (2024) – Clean Power 2030 Action Plan: A new era of clean electricity
13 National Audit Office (2023) – Decarbonising the power sector

18 percent of total energy demand in the UK in 2022[14], but it is likely that with the rising adoption of technologies such as heat pumps and electric vehicles that the proportion of energy demand supplied by electricity will increase, making electrification a vital proponent of the UK's wider net zero ambitions.

The government's pledges for clean power come in tandem with a number of legislative developments that will impact the progress of both electrification and the decarbonisation of the energy system. The Great British Energy Bill is to establish a publicly owned renewable energy company to galvanise investment and development for clean energy projects across the UK, as well as extend support for local energy resilience and champion partnerships with private and local stakeholders[15]. The Crown Estate Bill, furthermore, aims to broaden the powers of the Crown Estate to borrow and to invest, removing limitations to encourage its support in the delivery of national policy objectives including energy security[16]. Additionally, the Planning and Infrastructure Bill – presented to Parliament on the 11th March 2025 – seeks to ameliorate some of the obstacles to decarbonisation of the energy system by prioritising grid access for renewable sources and extended the benefits of clean energy generation to communities affected by new infrastructure[17].

1.1.2 Great British Energy

As noted, the Labour Party took office at the 2024 general election on the back of a manifesto which included a reiteration of the national mission to "make Britain a clean energy superpower". The push to deliver began in the early stages of the new government, with the promised GB Energy being established with a budget of £8.3bn over the current Parliament, announced alongside a significant increase in funding for renewable energy projects. As a publicly owned energy company, the government intends for GB Energy to follow in the footsteps of some notable European counterparts, such as the French EDF and Danish Ørsted[18], both of which utilise revenue income to reinvest in state-led energy projects, as the founding statement for GB Energy suggests would be the intention for the UK's own iteration.

The government claims that a publicly owned company will not only be able to speed up the deployment of mature and new technologies, but also support supply chains,

14 House of Commons Library (2024) – The UK energy system
15 DESNZ (2024) – Introducing Great British Energy
16 UK Parliament (2024) – Crown Estate Bill [HL] Explanatory Notes
17 MHCLG (2025) – 'Biggest building boom' in a generation through planning reforms
18 Politico (2024) – Labour promised a state-owned energy company. Can it work?

local energy generation, and partnerships with industry stakeholders and other public sector organisations. Other benefits lauded by the company's founding statement include energy independence and, consequently, better security and reduced bills for domestic consumers. The route to the country's energy independence will rely on GB Energy performing five functions;

- project investment and ownership,
- project development,
- the Local Power Plan,
- building supply chains, and
- collaboration with Great British Nuclear[19].

The Autumn Budget, however, allocated only £100m in funding for GB Energy's renewables projects for the first two years of this parliament – a paltry sum in the context of Labour's commitment to £8.3bn of investment across the whole term[20]. If GB Energy is to reach EDF-levels of success, industry stakeholders have suggested that much more extensive funding will be needed to ensure that the company is able to crowd-in investment for projects and de-risk the development process for private developers, and that the government must clarify messaging around the remit of the company[21]. It is, however, expected that once the company has become more established, funding will see a significant boost – likely to be decided in the multi-year spending review.

A challenge for GB Energy will be the rapid pace that delivery must take in order to meet the government's net zero ambitions, perhaps stymied by the current time frames required to build the requisite investment pipeline for deployment. The founding statement's emphasis on the new partnership between GB Energy and the Crown Estate is therefore unsurprising, but a positive sign, especially if the partnership can succeed in leveraging the £30-60bn of private investment it claims it can for offshore wind developments[22].

One of the primary concerns of state-owned energy vehicles is the balancing of commitments to decarbonisation and energy independence with commitments to affordable bills, each of which feature in GB Energy's founding statement and, as an

19 DESNZ (2024) – Great British Energy founding statement
20 Financial Times (2024) – GB Energy gets just £100mn over 2 years in Budget despite £8bn pledge
21 Institute for Government (2024) – GB Energy: How to turn manifesto promises into tangible results
22 DESNZ (2024) – Great British Energy founding statement

'energy trilemma'[23], can lead to significant issues in profit generation—and therefore the company's ability to reinvest in the national energy system and sustainable power. EDF, for example, saw record losses in 2022 as the French government capped energy prices for French consumers following the Russian invasion of Ukraine and EDF's nuclear portfolio requiring extensive closures for repairs[24].

The Energy Trilemma

The trilemma states that energy policy must ensure energy sustainability, energy security, and energy affordability concurrently. Although the cost of renewables is steadily decreasing, at the moment reliance on intermittent renewables can negatively impact energy security and the perceived costs of deploying infrastructure for the transition can deter momentum; focusing on energy security can increase carbon emissions and potentially also household energy costs; and efforts to reduce costs can cause an overreliance on a more limited range of energy sources, impacting security.

Although 2023 saw a return to good performance for EDF as a result of much higher nuclear output[25], the case highlights the balancing act of the trilemma that GB Energy must get to grips with fast, especially if the government wants the company to survive past this current political term[26]. Even with GB Energy's commitment to supporting both established and new technologies, implying a state-backed diversification of energy production and net zero requirements, the capacity for GB Energy to meet its commitments of financial sustainability and to be self-financing will rely on a framework that identifies where it can make returns for the public without sacrificing investor confidence[27].

The Local Power Plan, which remains perhaps the least developed component of GB Energy's portfolio to date, may provide a light in the darkness when it comes to boosting public confidence. If the company succeeds in "ensuring benefits flow directly back into local communities"[28], this will potentially result in a much better political case for the future of GB Energy.

23 House of Commons Library (2023) – Tackling the energy trilemma
24 BBC News (2023) – EDF: French energy giant posts worst-ever results
25 Financial Times (2024) – EDF: 2023 Annual Results: Substantially higher nuclear output in France
26 Public First (2024) – Great British Energy: From pledge to reality
27 DESNZ (2024) – Great British Energy founding statement
28 Ibid.

1.2 Local government, decarbonisation and energy

The relationship between local government and decarbonising energy reflects a complex interplay of political, institutional, social, and economic factors. Worldwide, local authorities are increasingly recognised as essential actors in the decarbonisation process, and the role of local authorities in the UK is particularly pertinent given the country's legally binding commitments to achieving net zero by 2050. This commitment still necessitates a significant transformation of the energy system, one that must work at a much greater pace and scalability and is informed by principles of a just transition.

1.2.1 Local government and the energy transition

Local authorities have long been recognised as essential institutional actors in the net zero transition. In a 2022 report, the government put forward that 82 percent of the UK's carbon emissions are within the scope of council action[29], while the Climate Change Commission has stated that a third of all emissions within a local authority area are within their influence[30]. Regardless of the specific quantum, there is common agreement that local government has a uniquely critical role to play, driving decarbonisation both as the large organisations that they are, with large estates and workforces, and as the main manifestation of the state in much of the lived experiences of residents and businesses – whether as social landlords, planning authorities, waste management authorities, or any of the myriad roles which councils play in daily life[31].

Yet in terms of the actual delivery of policy, the central government position on the role of local government in achieving decarbonisation and net zero by 2050 has been marked by inconsistency and, at times, contradiction. This can be partly attributed to political instability in the late 2010s to early 2020s, with four different governments cycled through between 2017 and 2022. While ambitious targets have been set, there has been a lack of clarity over the specifics of the local role in achieving them, with poor coordination across geography and sectors hindering effective action[32]. Where decarbonisation of the electricity grid is concerned, this has manifested in the National Planning Policy Framework (NPPF) failing to provide a strong steer on the

29 DESNZ (2022) – Net Zero Strategy: Build Back Greener
30 House of Commons Library (2023) – The role of local government in delivering net zero
31 National Audit Office (2020) – Achieving Net Zero
32 Localis (2022) – Mapping a route to clean local growth

desirability of renewable energy infrastructure[33], despite successive governments being ostensibly in strong support of this transition.

Despite this uneven history, the Department for Energy Security and Net Zero (DESNZ), formerly BEIS, has maintained consistent support for councils through its local net zero hubs and the local net zero forum[34]. There has also been an increasing recognition, driven by government-funded bodies like the Energy Systems Catapult and the energy regulator Ofgem, of the importance of Local Area Energy Planning (LAEP) to the decarbonisation of the energy sector[35]. In this environment, councils of all types across the country have sought to use their hard and soft power to drive clean energy generation, even when central government policy has been lacking and local government's severely restricted finances. A review of the issue by UK100 in late 2024, however, found that while some trailblazers have found ways to implement transformative policy, most are failing to overcome systemic barriers which can only be alleviated by central government[36].

The current government has again made a strong rhetorical commitment to decarbonisation and recognised local government's role in such a goal. The Clean Power 2030 Action Plan, published in October 2024, highlights the importance of councils working with businesses and community groups to develop and implement projects delivering renewable energy infrastructure[37]. The plan also mentions the need to reform the planning system to make deployment faster and easier, removing a longstanding contradiction in government net zero policy, which was also reflected in more robust support for renewable energy in the updated NPPF[38]. The most significant element of the plan as it pertains to the local state is still, however, lacking in granular detail: the Local Power Plan element of Great British Energy.

Nonetheless, defining the roles of local government in the energy transition present significant complexities due to considerable variability in how local authorities operate, with notable policy implications as a result. This variability arises from differences in ambitions, risk appetites, expectations, and institutional capacity. Such disparities make it notably challenging to establish a universal framework or a one-size-fits-all model for local government roles in the energy transition. The unique

33 Regen (2024) – Local Planning for Renewables: Five key policy challenges
34 DESNZ (2024) – Local net zero: central support for local authorities and communities
35 Energy Systems Catapult – Local Area Energy Plans
36 UK100 (2024) – Local Net Zero 2.0: The Moment to Deliver
37 DESNZ (2024) – Clean Power 2030 Action Plan: A new era of clean electricity
38 Regen (2024) – New NPPF could go further to accelerate deployment of renewables

characteristics of each local authority and their circumstances mean that strategies or policy mechanisms effective in one locality may not be suitable in another.

This is why, fundamentally, a place-based approach is the most effective method for defining local authority roles in transitioning toward decarbonised energy systems. Rather than applying a standardised role across all of local government, each area should determine its respective roles based on specific contexts, needs, and priorities – within a broad and facilitative framework.. Such an approach would acknowledge the diversity of local conditions, including demographic, geographical, and infrastructural factors, allowing local authorities to tailor their involvement in decarbonising local energy systems to best serve their communities.

1.2.2 The Local Power Plan

While there is a tension between taking a place-based approach and providing an overarching framework, there are nonetheless key guiding principles that can be gleaned when seeking to instil a place-based approach to the energy transition. It is essential for local authorities to act as enablers through novel use of their convening powers, facilitating partnerships and engaging with communities to drive climate action. Local authorities can also play a pivotal role in driving decarbonisation by making realistic promises and focusing on opportunities and delivering co-benefits rather than short-term political gains.

Despite their critical role, local authorities encounter significant structural and operational barriers in achieving and implementing a locally-led decarbonisation agenda. Fragmentation in funding streams, limitations in institutional and departmental capacity, and continued policy misalignments between central and local government often obstruct progress. The proposed Local Power Plan has the potential to play a valuable role in removing some of these barriers and instilling those key guiding principles into a policy framework.

GB Energy's founding statement promises the plan as an essential component of delivery, backed with £600m in funding for local authorities and £400m in low-interest loans to community groups[39]. The Local Power Plan will aim to develop 8GW of small and medium-scale renewable energy projects through this funding. While relatively undetailed at this stage, GB Energy is also set to provide targeted funding and assistance to local and combined authorities, as well as community energy groups

39 Collins (2024) – Clean power to the people – Great British Energy's local power plan and its importance for development

directly. This support is set to include financial resources for local power generation initiatives, commercial and technical advisory services, and project-planning assistance to enhance local capacity and ensure project success.

Additionally, the Local Power Plan emphasises the importance of coherence with existing public sector initiatives in the local energy space, such as the National Wealth Fund, reinforcing a strategic alignment that aims to attract investment while ensuring that the economic benefits of these projects remain within local communities. By promising to foster thousands of skilled, green energy jobs nationwide, the Local Power Plan underscores the government's promising recognition of the value of local ownership and active participation in the clean energy transition, reinforcing the imperative for communities to take a leading role in shaping the country's energy future.

Robust data and measurement mechanisms are critical if the Local Power Plan is to ensure accountability, transparency, and effectiveness in achieving its stated objectives. Without a precise, clearly communicated tracking of project delivery, it will become challenging to verify whether funding—such as the £600m allocated to local authorities or the £400m in low-interest loans put forward by the government—is being deployed efficiently, equitably and in alignment with overarching policy goals. Measurement mechanisms to this effect can enable stakeholders, both within councils, respective partners, and invested communities, to assess whether renewable energy projects are progressing on schedule, within budget, and at well as the scalability required to meet the ascribed 8GW target, while also identifying bottlenecks such as existing fragmented funding and capacity gaps that could derail progress or fail to deliver for communities.

Quantifiable benefits, such as job creation, local economic multipliers, and overall reductions in carbon emissions, must be documented and published, with explicit outreach and messaging, to validate the plan's reductions, garner ongoing public support, and justify or attract continued investment. With regard to maintaining public trust and political support for the efficacy of action on net zero, as increasingly sceptical communities will need material evidence that projects are delivering rather than merely serving as symbolic gestures and cloaked private sector value extraction. The announcement of energy bill discounts for communities within 500m of new energy pylons is a positive step, such an approach must be applied wherever possible in the construction of the Local Power Plan – in the targeting and promoting of less immediate benefits such as improvements to local economies and public health.

1.3 Community power

As a key component of the UK's sustainable energy transformation, community energy generation continues to evolve, offering an increasingly viable and impactful approach to achieving a resilient, low-carbon energy future, recognised repeatedly in the GB Energy founding statement. By fostering local energy autonomy, community energy projects redistribute economic benefits, enhance system resilience, and strengthen public engagement in the energy transformation process[40,41]. The decentralisation of energy production mitigates vulnerabilities associated with fossil fuel dependency, reducing exposure to price volatility and supply disruptions[42].

Empowered communities can facilitate a transformative approach to energy provision that ensures local ownership and control of renewable energy resources. Unlike traditional commercial developments where revenues often leave communities and localities, a model founded on community power, when developed and managed well, fosters economic growth by creating jobs, supporting local supply chains, and strengthening local financial resilience and energy security. Community-led initiatives also promote social cohesion and strengthen local social capital, encouraging collaboration and empowering residents with greater decision-making influence – with the success of such initiatives closely linked to the ability of residents to collectively influence governance processes[43,44]. Furthermore, the ownership of and agency over renewable assets promotes strategic long-term planning, allowing communities to sponsor and cross-subsidise projects that enhance local quality of life on their relative terms, in addition to achieving broader decarbonisation goals[45].

In addition to economic and social benefits, empowered communities engaging in energy provision reduce reliance on the international market, ensuring greater control over pricing and energy security at a time when traditional sources are becoming more expensive and less dependable. By prioritising local suppliers, tradespeople,

40 Becker & Kunze (2014) – Transcending community energy: Collective and political motivated projects in renewable energy (CPE) across Europe

41 Bauwens et al. (2016) – What drives the development of community energy in Europe? The case of wind power cooperatives

42 Ruggiero et al. (2018) – Understanding the scaling-up of community energy niches through strategic niche management theory

43 Seyfang et al. (2013) – A thousand flowers blooming? An examination of community energy in the UK

44 Coy et al. (2023) – Putting the power back in empowerment: Stakeholder perspectives on community empowerment in energy transformations

45 Azarova et al. (2019) – Designing local renewable energy communities to increase social acceptance

and labour, such projects develop green skills, sustain employment, and boost regional economies. Generating renewable energy from the bottom up allows communities to maintain stability in times of market and geopolitical volatility while reducing the environmental impact of local energy systems and, if scaled effectively, the nationwide energy system[46].

Facilitating and enabling communities to generate, manage, and benefit from their own energy projects, whilst reinvesting profits into local infrastructure, businesses, and social initiatives, is predicated on communities buying-in and having the agency and means to engage in such projects. With the right support, investment, and policy, empowered communities can drive a more sustainable and equitable energy future for the UK, enhancing resilience and ensuring that the benefits of renewable energy and the broader transition to net zero by 2050 remains with the communities that produce and contribute to them. Yet, despite a tacit understanding of the need for community power within the energy system, government policy so far has failed to capture the essence of community power and lift barriers to its utilisation in energy provision enough to see local energy generation proliferate and scale across the country effectively.

1.3.1 The role of the hyper-local in decarbonised energy

The Climate Change and Sustainable Energy Act 2006 represented an initial legislative endeavour to facilitate 'microgeneration' and foster community-driven energy initiatives in the UK. By incentivising small-scale, locally governed energy projects, the Act aimed to curtail emissions and mitigate energy poverty through an alternative, decentralised approach to energy provision. The Act was successful in terms of laying the groundwork for community generation through its establishment of a supportive framework. However, bureaucratic and market challenges, such as regulatory complexity, funding difficulties, and competition with larger energy providers, as well as limited community engagement in energy decision-making on the ground, due to a lack of collaboration between local stakeholders and insurmountable policy disconnects, meant the legislation was seriously constrained in its practical implementation.

Building on this foundation, the introduction of feed-in tariffs in 2010 provided further impetus for community energy generation by offering notable financial incentives for small-scale renewable energy production. This policy intervention had initial success, catalysing significant growth in community-led solar photovoltaic projects in particular

46 Panagiotou et al. (2017) – Design recommendations for energy systems: A UK energy community study

with a 200x increase from 26.5MW in 2009 to over 5GW by the end of 2014, and serving to demonstrate the economic viability of localised energy solutions[47].

However, the scheme also faced significant challenges. Shortly after its implementation, the government made several disruptive adjustments, including cuts to incentive prices and the introduction of deployment caps. These changes were controversial, and critics argued that such modifications undermined the initial objectives of feed-in tariffs, which was to support nascent renewable technologies[48]. Moreover, concerns were often raised about the financial burden and redistributive effects of feed-in tariffs as a mechanism, with studies indicating that while feed-in tariffs contributed to the profitability of renewable energy companies across Europe, they also resulted in increased costs for households, raising questions about the policy's equity[49,50]. In 2019, the scheme was closed to new applicants, a decision ultimately influenced by the overall maturity and cost reductions of renewable technologies, financial burdens, and a policy shift away from subsidy-driven incentives towards market-driven mechanisms.

The next critical milestone for community energy was the publication of the Community Energy Strategy (CES) in 2014, which sought to institutionalise community engagement within the national energy governance framework. The strategy underscored a more polycentric model of energy governance, wherein local authorities and grassroots organisations were empowered to engage in decentralised energy production, demand-side response mechanisms, and a more holistic management of energy systems.

One of the primary successes of the CES was its ability to foster community engagement and local participation in energy initiatives; crucial for the acceptance and sustainability of community energy projects. A wealth of research has demonstrated that community energy schemes such as the CES can significantly enhance local empowerment and participation, leading to increased public

47 Balta-Ozkan et al. (2015) – Regional distribution of photovoltaic deployment in the UK and its determinants: A spatial econometric approach

48 Haar (2021) – Design flaws in United Kingdom renewable energy support scheme

49 Grösche & Schröder (2013) – On the redistributive effects of Germany's feed-in tariff

50 Montero et al. (2018) – Assessment of the influence of feed-in tariffs on the profitability of European photovoltaic companies

awareness and support for local renewable energy projects[51,52,53]. The facilitation and establishment of community energy cooperatives has been particularly effective in mobilising local resources and fostering a sense of ownership amongst residents[54].

However, the CES continues to face significant regulatory and financial challenges that have hindered its growth and scalability. Complex regulations surrounding energy generation and marketing present major barriers[55], while the withdrawal of financial incentives, most notably the aforementioned feed-in tariffs, has further strained the viability of many community-driven initiatives, raising further concerns about the long-term sustainability of the strategy's goals in practice[56]. Additionally, the ambiguous and inconsistent role of local authorities as intermediaries has led to disparities in support across regions, with local government involvement in CES initiatives notably fragmented and 'atomised' across the country[57,58].

The Community Energy Fund (CEF), representing one of the final Conservative government initiatives to bolster community energy generation, played a fairly pivotal role in further fostering community-led energy governance, albeit still rife with challenges and frustrated by barriers. By promoting grassroots participation, the CEF aimed to further enhance the market viability of community-owned micro-renewable projects. The CEF's objectives were set up to be consonant with the legislative imperatives of the 2011 Localism Act, which sought to devolve power to local communities[59].

51 Tweed (2014) – Local energy collaboration: The role of local authorities in community energy
52 Markantoni (2016) – Low carbon governance: Mobilizing community energy through top-down support?
53 Rodrigues et al. (2020) – User engagement in community energy schemes: A case study at the Trent Basin in Nottingham, UK
54 Acharya & Cave (2020) – Feed-in tariff removal in UK's community energy: Analysis and recommendations for business practices
55 Rodrigues et al. (2020) – User engagement in community energy schemes: A case study at the Trent Basin in Nottingham, UK
56 Acharya & Cave (2020) – Feed-in tariff removal in UK's community energy: Analysis and recommendations for business practices
57 Bird & Barnes (2014) – Scaling up community activism: The role of intermediaries in collective approaches to community energy
58 Eadson (2016) – State enrolment and energy-carbon transitions: Syndromic experimentation and atomisation in England
59 Mitchell & Lemon (2020) – Learning how to learn in sustainability transitions projects: The potential contribution of developmental evaluation

However, the realisation of a fully integrated community energy paradigm necessitates a profound transformation of regulatory and financial infrastructures, one that was not forthcoming with a market-based approach resulting in a transition that many community initiatives found insurmountable. Structural inadequacies within the existing energy supply and distribution networks further exacerbated these challenges and, while the CEF was nominally committed to inclusivity, its implementation disproportionately benefitted socioeconomically advantaged and time-rich demographics, effectively marginalising lower-income communities and engendering inequities in the distribution of energy-related benefits[60]. Additionally, the absence of a cohesive strategic framework for embedding community energy projects within the broader energy market perpetuated scepticism regarding their viability as an alternative to conventional energy sources, ultimately undermining the fund's intended goal of rendering community energy projects marketable and financially viable.

Despite the theoretical promise of widespread, scaled-up community-led energy projects, practical, structural, and political barriers have continued to impede their effectiveness and scalability. The phased reduction and eventual cessation of feed-in tariffs, coupled with an increasingly complex and marketised regulatory environment, has created significant obstacles for community energy initiatives to take hold nationwide. Empirical analyses do emphasise the economic and operational benefits of these projects when successful, particularly their capacity to enhance grid flexibility and reduce transmission expenditures[61]. Yet, in absence of sustained political and policy support, a coherent integration strategy, and dependable financial mechanisms, these initiatives will continue to struggle in attaining long-term viability and scalability.

1.3.2 Communities and the Local Power Plan

At the hyper-local level, community ownership of energy infrastructure has been emphasised repeatedly by the government, as has the need to ensure that the benefits of increased capacity are felt by local people in the vicinity of projects. Unlike previous government initiatives, which primarily relied on market-driven incentives and subsidy-based mechanisms such as feed-in tariffs, the Local Power Plan seemingly represents a more integrated and participatory model of energy governance, one in which regional, local, and community stakeholders are ascribed roles and responsibilities.

60 Haggett & Aitken (2015) – Grassroots energy innovations: The role of community ownership and investment
61 Sugar & Webb (2022) – Value for money: Local authority action on clean energy for net zero

Earlier policies, while successful in stimulating initial community energy growth, were often constrained by inconsistent regulatory frameworks, financial instability, and limited grassroots involvement. In contrast, the Local Power Plan explicitly lays out plans to institutionalise community participation as a central pillar of the energy transition, seeking to embed local decision-making into national energy governance structures. By laying out plans to foster long-term structural support, financial accessibility, and regulatory coherence, the plan aims to rectify the fragmentation and unpredictability that have previously hindered the scalability of community-led energy generation.

A key component of this approach is the systematic deployment of small- to medium-scale renewable energy infrastructure nationwide, underpinned by both established and emerging technological paradigms. The plan emphasises shared ownership frameworks wherein private sector entities and local stakeholders engage in cooperative investment and joint operational oversight, seeking to foster synergistic financial and technological collaboration in a way that reconciles both strategic and market viability. Additionally, the initiative mandates GB Energy to function as a pivotal institutional conduit, extending financial, strategic, and infrastructural support to local and combined authorities, alongside community energy groups, to enhance the feasibility and scalability of decentralised energy projects.

The Local Power Plan also sees a structured augmentation of institutional capacities at the local level. This will be operationalised through the provision of commercial consultancy, technical assistance, and targeted project-planning resources. The content, detail, and access to such provision is yet to be elaborated on, but it appears as though the overarching intent of this more interventionist strategy is to facilitate the development of a sustained pipeline of community-led projects that can be viable, resilient, and compliant long-term with a view towards integration into the broader energy system.

Another salient component of this framework is its commitment to policy coherence and institutional synergy, aspects that past initiatives have notably lacked. The plan explicitly states the government's intention to integrate with existing public sector advisory mechanisms and align with financial institutions that exert significant influence within the local energy sector as it stands, such as the UK Infrastructure Bank. By seeking to develop such cross-sectoral coordination with a coherent policy framework, the Local Power Plan aims to optimise its own implementation, enhance financial accessibility for community energy projects, and streamline regulatory pathways for a community-led energy transition.

The Local Power Plan seemingly envisions another epistemic shift in the understanding of community roles within the energy transition towards net zero from government. Rather than positioning local stakeholders as passive recipients of top-down energy policies, the plan promises advocacy for a model wherein communities function as co-architects and operational stewards of renewable energy infrastructures on a grassroots, bottom-up basis. By equipping community groups with requisite financial, operational, and governance capabilities, the framework shows great promise for establishing a decentralised energy governance model that prioritises local participation, economic agency, and long-term systemic resilience, with institutions seemingly set to support such goals.

Summary: Considerations for the Local Power Plan

For the Local Power Plan to be successful, the framework should be used to:

- **Consolidate funding streams** for clean energy projects in local areas.
- **Build community capacity** to engage with energy projects.
- **Provide robust data and measurement mechanisms** for monitoring and evaluation.
- **Target quantifiable benefits** to local communities.

The government should also consider the **reintroduction of feed-in tariffs** to help enable participation.

CHAPTER TWO

Electricity decarbonisation: barriers and opportunities

The government's clean electricity commitments as outlined in the Clean Power 2030 Action Plan pledge that the power system will produce at least as much power as Great Britain consumes in a year using clean sources by 2030. Clean sources will also account for 95 percent of Great Britain's overall generation[62]. The paper promises that this "new era" of renewable energy will ensure that the benefits of clean power are spread throughout the country. These outcomes will rely on local leadership playing a more active role in delivering the transition. Properly identifying the barriers that exist – political, financial and technical – as well as understanding the scale of the opportunity at hand is therefore crucial.

62 DESNZ (2024) – Clean Power 2030 Action Plan

Key points

- Since 2010, the UK has more than quadrupled the share of electricity generated by renewables, and has committed to producing as much clean power as Great Britain consumes in a year by 2030.
- Nevertheless, technical, financial, and political barriers exist to expanding renewable energy generation. These include grid infrastructure unpreparedness, techno-economic uncertainties, high upfront costs, and potential public opposition.
- The UK's commitment to achieving net zero requires substantial investment, but it presents opportunities for economic growth, increased productivity, and job creation.
- To ensure the success of the Local Power Plan, the government should establish regional energy data centres, support councils in procurement and contracting, provide capacity support for planning applications, and consider moving the capital burden of renewable infrastructure away from household bill levies.

2.1 Challenges to renewable deployment

Expanding renewable energy technology deployment will be a question of tackling barriers both at the national scale and at the regional level in order that the energy transition occurs equitably and with public backing for progress towards net zero. The UK, in its drive to decarbonise, is establishing a system that makes use of decentralised technologies and renewable energy sources, such as wind farms and solar power. However, as these are intermittent energy sources, the grid must also utilise managed energy storage technologies to continue to meet demand when energy cannot be generated. Additionally, to ensure efficient response to energy demand, other technologies such as smart grid and smart metering have increasingly become a boon to the decentralisation of energy systems.

2.1.1 Technical barriers

There are certain technical barriers to extending renewable generation to the scale required for a clean 2030. Drivers of decentralised renewable deployment, in general, include the use of existing infrastructure and ongoing development of technology, as well as the development of new infrastructure. As part of this process, there can arise barriers related to the rapid deployment of new and complex

technologies, tied to techno-economic uncertainties – uncertainties regarding the costs and benefits of the technology – and the need for space with which to develop and deploy renewable energy projects. Additionally, related to the development and use of complex technologies, at the institutional level there can be an entrenched lack of technical definition and standardisation, which can impact policy and decision-making processes[63].

In the UK, these barriers present themselves most apparently through unpreparedness of energy grid infrastructure and a backlog in projects waiting to be connected to the grid system. In 2023, Ofgem announced new rules to implement queue management milestones, including the securing of planning permission, consents, and land rights, that would terminate projects in the queue that are not ready to connect[64], hoping to speed up the process of grid connection.

In the case of the UK, analysis has suggested that available potential land space for renewable energy projects is less of an issue than the barriers to identifying and releasing suitable areas for renewable energy[65]. Planning reform introduced in 2024 has encouraged the development of onshore wind projects, with changes to the NPPF also signalling better support for solar projects. The Planning and Infrastructure Bill will cement these positive reforms and also tackle technical barriers to deployment by accelerating upgrades to the grid, as well as bringing updates to the process of Nationally Significant Infrastructure Projects.

The government's Clean Power 2030 Action Plan also has pledged to ensure that organisations have better flexibility and knowledge to coordinate the large-scale deployment of renewables, including the introduction of a Strategic Spatial Energy Plan in 2026 by the National Energy System Operator (NESO)[66], which will aim to stipulate the requirements for the system based on technology capacity ranges expected even beyond 2030.

63 I. Aparisi-Cerdá et al. (2024) – Drivers and barriers to the adoption of decentralised renewable energy technologies: A multi-criteria decision analysis

64 National Energy System Operator (NESO) (2024) – CMP376: Inclusion of Queue Management process within the CUSC

65 Friends of the Earth (2024) – How England can produce more onshore renewable energy fast

66 DESNZ (2024) – Clean Power 2030 Action Plan

However, the significant skills gaps in local authorities across planning, legal, and procurement present a critical technical barrier to decarbonising local energy systems and making best use of legislation and reforms. These gaps fundamentally hinder the ability of councils to design, implement, and manage complex projects necessary for transitioning. For instance, planning departments often lack the technical expertise to process applications for renewable energy installations efficiently, leading to widespread delays. Data from the government's Office for Clean Energy Jobs highlights that over 60 percent of delayed planning responses related to clean energy projects in 2023-24 were attributed to resourcing challenges, with similar issues reported in environmental and heritage assessments[67]. This bottleneck slows the rollout of essential infrastructure and puts off vital investment, seriously diminishing the supply of development capital necessary for decarbonising local energy systems.

Local authorities have also struggled to navigate evolving procurement frameworks and integrate climate obligations into contracts[68]. Post-Brexit reforms to procurement rules, which prioritise net zero and social value, demand a nuanced and up-to-date legal understanding to effectively align contracts with decarbonisation goals and just transition outcomes. Many councils lack the capacity to draft or enforce clauses that will ensure contractors adhere to sustainability standards and other decarbonisation measures, risking missed opportunities to leverage procurement for climate action and the further extraction of value by private entities through the public sector. These risks are exacerbated by fragmented governance, where local authorities must balance central government priorities with local needs without statutory net zero targets, leaving them reliant on procurement as one of their few actionable tools.

The efficacy of decarbonisation efforts is also contingent upon the meticulous collection, standardisation, strategic use of data, facilitating not only the precise quantification of emission reductions but also the identification of latent opportunities or neighbourhoods for further decarbonisation. Such data and methodology rigour will ensure that resource allocation and development capital is optimised towards interventions with maximal and equitable impact. However, many local authorities are ill-equipped in this space and are therefore missing out on a critically important part of a just energy transition.

67 DESNZ (2024) – Assessment of the clean energy skills challenge

68 Sugar et al. (2022) – Local decarbonisation opportunities and barriers: UK public procurement legislation

Digital local energy system twins

As advanced virtual replicas of physical energy systems that simulate real-world conditions and interactions, digital twins integrate data from diverse sources, including building stocks, renewable energy assets, and infrastructure, enabling local authorities and relevant stakeholders to test scenarios, predict outcomes, and make informed, equitable decisions.

One key contribution is their ability to model the integration of renewable energy sources and low-carbon technologies at a granular local level. For instance, projects like the ENSIGN Energy System Digital Twin (as part of the *Prosperity Partnership*), with a focus on simulating multi-vector energy networks aided in balancing supply and demand in real time, ensuring reliability amidst increasing decentralisation and energy disruption[69]. Similarly, ongoing research from UCL integrated a digital twin of the UK building stock with energy system models to assess hydrogen heating feasibility, addressing gaps in local data that had previously hindered a credible evidence base for decarbonisation pathways[70].

Visualising policy impacts, spatially and temporarily, enhancing data-driven decision-making, and the facilitation of scenario testing for emerging technologies are all highly touted uses of digital energy system twins, and they will be pivotal in overcoming technical barriers by providing a unified platform for data integration on Local Power Plans and their delivery as a result. Their widespread use will depend on addressing trust gaps, fostering interdisciplinary partnerships, and scaling up demonstrator projects to be used by local authorities, To this end, collaboration with universities, technical colleges, and the local private sector on such a basis will be critical, and national government should work to enable such initiatives through GB Energy.

69 University of Strathclyde (2023) – 'Digital twin' project will inform future innovation in the UK energy industry
70 Dodds (2024) – The energy model helping the UK achieve net zero

2.1.2 Financial barriers

There are a number of wide-ranging fiscal and economic drivers that encourage the deployment of renewables in the UK on both the supply and demand sides, including consumer grants for the installation of property-level renewables, tax incentivisation for research and development[71], and green bonds to encourage renewable energy financing. In addition, the scaling of renewable deployment has tended to bring down prices, as seen in the immense fall of 90 percent in the cost of solar cells in only ten years, as the learning curve of renewable technologies means that cumulative increases to installed capacity decline prices[72].

However, a good number of financial obstacles to the deployment of renewable technologies remain. In the years following the COVID-19 pandemic and the Russian invasion of Ukraine, higher interest rates have increased the costs of investment and economic profitability for companies has suffered. The relatively high upfront costs of renewable energy investments mean that interest rates have an outsized impact on renewables[73]. High material costs have also disincentivised commitment to renewable energy projects, with this lack of interest leading to the cascading impact of higher costs for supply chains – particularly for the offshore wind sector. Fortunately, DESNZ has indicated that the government is committed to supporting offshore wind in particular, claiming the technology to be "the backbone of the clean power system"[74]. Reforms to be considered include a review of auction parameters and the introduction of an auction schedule in order to improve transparency and predictability in the process of awarding contracts to companies to build and operate wind farms.

Finally, and most predominantly, potential investors may be dissuaded by the perception of the risks involved with renewable energy and particularly newer technologies, as well as in terms of financing energy programmes at the local level, that can include community-led projects that may introduce a more costly and time-intensive process to development.

71 CBI (2024) – Tax and Green Investment

72 Our World in Data (2024) – Solar panel prices have fallen by around 20% every time global capacity doubled

73 International Energy Agency (2023) – Financial headwinds for renewables investors: What's the way forward?

74 DESNZ (2024) – Clean Power 2030 Action Plan

Recent changes to renewable energy investment incentivisation have included the removal of Levy Exemption Certificates, for the exemption of suppliers and producers from the Climate Change Levy, and the closure of the Feed-in-Tariffs Scheme for new applicants, which consequently have led to a stagnation in investment[75]. It is therefore very evident that both the economic drivers and economic barriers to the deployment of renewable energy technologies are linked inextricably to the policy and regulatory environment.

2.1.3 Political barriers

As such, driving forward deployment is reliant on the political will for transformation. Political will has a cascade effect on both the financing and technical development of technologies, as well a wider impact on public awareness and education regarding renewable energy at both the public and institutional levels. The techno-economic uncertainty surrounding renewable technologies, a primary barrier to deployment, is one that can be mitigated by an environment of supportive policy and fiscal drivers that incentivise reform, development, and investment by breaking through institutional inertia[76]. Studies have shown that the provision of a supportive regulatory framework is a factor even more critical to renewables deployment than the economic, managerial, or commercial expertise and success of energy companies[77].

In the UK, political support has been instrumental in driving forward renewable energy. For instance, the Energy Act 2013 legislated for the Electricity Market Reform programme, which introduced the Capacity Market as a mechanism to ensure supply security, and Contracts for Difference (CfDs)[78] to support the deployment of large-scale, low-carbon infrastructure. The total capacity of projects awarded CfDs has reached 43,126 MW since their introduction[79]. The challenge, however, in ensuring positive political engagement has become increasingly evident as a number of large-scale political movements across the West – notably, the Republican movement in the US and, closer to home, Reform UK – have seen political successes or increasing popularity to some extent aligned with an abandonment of net zero policies.

75 RSM UK (2024) – UK tax landscape: what needs to change to boost adequate renewables investment?

76 Aparisi-Cerdá et al. (2024) – Drivers and barriers to the adoption of decentralised renewable energy technologies: A multi-criteria decision analysis

77 Juszczyk et al. (2022) – Barriers for Renewable Energy Technologies Diffusion: Empirical Evidence from Finland and Poland

78 House of Commons Library (2024) – Contracts for Difference

79 Ibid.

Concerning the decentralised system, it has been noted that local authorities have an influencing role to play in the deployment of renewable energy, particularly in rural areas, where insufficient community participation can also lead to resistance against developments. However, it remains the case that local and regional bodies are also dependent on the policy and financial environments created at the national level[80]. As, likewise, is the lack of incentivisation for – and a lack of clarity in – the business models for 'prosumption', the simultaneous production and consumption of energy.

At the local level, public opposition, or the perceptions of public opposition among local leadership, can reduce the responsiveness of local authorities to the needs of places for renewable developments. The socio-material dimensions of renewable energy can have dampening effects on regional deployment. These dimensions are, namely, the interactions of renewable technologies with current land-based resource use; the nature of narratives concerned with deployment; and the management and regulation concerned with built infrastructure requirements for deployment[81]. What this means is that decision-makers must balance public engagement with resource availability and with the need for renewable energy deployment.

As such, the conversation concerning political will and engagement by necessity must revolve around the headroom for public spending to engage in serious capital investment in support of renewable energy deployment, in order to avoid concerns of public discontent on the matter of public spending woes.

2.2 Opportunities: solving 'wicked' policy problems

The 'energy trilemma' makes clear the 'wicked' nature of the energy transition. Wicked problems are those that are complex, with interconnected, multitudinous variables and real-world constraints; which often cannot be sufficiently modelled; where solutions are unclear; and, with especial significance in the case of the energy transition, where the consequences of not addressing the problems are also uncertain. In the UK context, the country's policymakers and energy sector stakeholders are beholden to the legislation that states it must meet net zero by 2050 and a target of 2030 for clean power. The urgency and scale of the challenge, defined in particular by the necessity for extensive grid expansion, is "at the outer limit of what is achievable"[82].

80 Streimikiene et al. (2021) – Barriers and Drivers of Renewable Energy Penetration in Rural Areas

81 De Laurentis & Pearson (2021) – Policy-relevant insights for regional renewable energy deployment

82 Energy and Net Zero Committee (2025) – Mission Control: can the UK really reach its Clean Power 2030 goal?

2.2.1 Tackling fuel poverty

To meet clean power 2030 without entrenching and exacerbating fuel poverty for vulnerable households will be a mammoth task. Fuel poverty is defined by the proportion of total income that a household must spend to keep their home at a reasonable temperature, and so depends on the variables of income, the cost of fuel, and the energy consumption of the household[83]. As such, policy must sit at the nexus of these variables, reducing inequalities of income, alleviating high fuel costs and providing financial support to help households pay bills, and ensuring that households across the country are energy efficient.

Decarbonising homes and improving energy efficiency is especially tricky in the UK context, as a significant proportion of the UK's housing stock is very old: 15 percent of English homes were built before 1900 and only 7 percent were built in 2012 or later as of 2022[84]. In 2024, almost 60 percent of local authorities still had more than half of their housing at below an EPC band C score, although some areas – particularly within London – have much greater proportions of energy efficient housing[85]. As well as ensuring that new houses are built to high standards of sustainability, almost all homes in the UK must be energy efficient if the country is to meet its net zero 2050 target[86]. Significant challenges to the widespread adoption of retrofitting range from funding gaps to a skills gap, as well as concerns about the adequacy of the EPC rating system for incentivising energy efficiency[87].

Additionally, public opinion of the energy transition and therefore political incentivisation has been tied into the rapid inflation of energy prices since, in particular, the Russian invasion of Ukraine and the associated rocketing of gas prices. The household energy bill is mostly comprised of wholesale energy costs, network and operating costs, and taxes and levies[88].

83 House of Commons Library (2024) – Fuel poverty in the UK
84 ONS (2022) – Age of the property is the biggest single factor in energy efficiency of homes
85 ONS (2024) – Energy efficiency of housing in England and Wales: 2024
86 CCC (2019) – UK housing: Fit for the future?
87 Climate Change Committee (2023) – Letter: Reform of domestic EPC rating metrics to Lee Rowley MP
88 House of Commons Library (2024) – Domestic energy prices

The electricity market in the UK is complex, and means that even though renewable energy accounts for an increasing proportion of the electricity supply, energy prices are still tied to the most expensive unit of last resort – the price of the fuel required to meet demand, which will often be gas when renewables and other cheaper sources of energy such as nuclear and biogas cannot reach demand. Renewables, despite higher upfront capital costs, are much cheaper to run than fossil fuels that have higher marginal costs. Cheaper sources are given priority in the electricity market, but without extensive deployment and development of energy storage technologies, the market will continue to respond to the gas price.

In the past five years, consecutive Conservative governments carried out two reviews of the electricity market with the goal of ensuring a low-cost system while shoring up the capacity of the electricity grid[89], with consultation carried out on the feasibility of decoupling the electricity and gas prices as well as the incentivisation for consumers to tap into the energy grid when rates are cheaper at times of low demand or high renewable energy production[90]. Ultimately, however, any solutions to domestic energy cost inflation through the decoupling of gas and electricity prices were concluded to be unfeasible, and efforts to alleviate price volatility for customers preferred as a measure for future energy affordability[91].

Because electrification will require much higher levels of electricity usage in the UK, meeting the UK's climate goals will also necessitate the expensive extension and upgrade of the grid network, potentially at the expense of consumers. Additionally, as renewables have marginal costs on average near-zero, this means that generators would have to pay to deliver electricity to the grid. For the consumer, however, the Contracts for Difference (CfD) scheme means that household energy costs will remain relatively unaffected by costs to renewable energy generators, as generators benefit from a guaranteed price per unit of energy generated despite the low marginal costs of renewables. That low cost, even without CfDs, provides stability at a level that even with grid upgrades benefits consumers, as renewables do not see the volatility that a reliance on global fossil fuels generates. Although network costs per household bill may increase due to grid upgrades, the bills themselves are estimated to remain level as the efficiencies of better, and even more localised, distribution come to the fore[92].

89 DESNZ (2024) – Review of Electricity Market Arrangements: Second Consultation Document
90 BEIS (2022) – UK launches biggest electricity market reform in a generation
91 DESNZ (2024) – Review of Electricity Market Arrangements: Second Consultation Document
92 Ofgem and BEIS (2022) – Electricity Networks Strategic Framework: Enabling a secure, net zero energy system

2.2.2 Reaching energy security

The question of energy security is tied inextricably to the reliance of energy generation – and by proxy, of domestic energy bills – on the most-expensive unit of last resort: gas.

On the global scale, subsidies of fossil fuels sky-rocketed in 2022 to soften the landing of the crisis instigated by Russia's invasion of Ukraine and highlighting the real fragility to energy security that such a reliance provokes. In the UK that year, the government provided £5.7bn in tax relief for oil and gas investment for a three-year period[93]. More recently, at COP29 in Azerbaijan, the UK joined the international Coalition on Phasing Out Fossil Fuel Incentives Including Subsidies (COFFIS), nominally committing to reducing incentivisation for fossil fuel investment and therefore diminishing the UK's reliance on gas, but consumers will remain exposed to global fossil fuel markets while gas accounts for any part of our household and industrial energy supplies, particularly at times of peak demand when gas constitutes a much larger proportion of supply.

There are existing mechanisms via which domestic policy can soften the blow for consumers when it comes to the expense of poor energy security and a reliance on high-cost energy supply. Primarily, the Capacity Market (CM) has been able to incentivise investment into both existing and new energy capacity since its introduction in 2013, ensuring demand is always met for consumers at an affordable price and therefore safeguarding against blackouts. In the CM, the National Energy System Operator runs regular auctions where it buys future capacity from providers who commit to being able to supply power at periods of very high demand, with penalties in place to ensure compliance. New capacity can benefit from longer-term contracts, and so the CM incentivises new forms of capacity such as battery storage, which ultimately will in future become competitive providers to meet peak demand in the place of more expensive and high-carbon alternatives[94]. The CM will also provide subsidy to older, more expensive generators who would otherwise exit the market.

As such, the CM offers a good opportunity for the incentivisation of renewable energy sources that doesn't come at an inordinate cost to the consumer. The CM requires reform in order to allow the National Energy System Operator to manage the transition efficiently and cost-effectively, as part of a wider suite of institutional and governance mechanisms to drive supply into a low-carbon status quo and in alignment with energy efficiency supports to ensure demand and household bills remain manageable.

93 E3G (2022) – Tax relief for oil and gas is trouble for UK bills and energy transition

94 Regen (2023) – Capacity Market reform – greater resilience and value for money, with less carbon

2.2.3 Boosting economic growth and productivity

Although the push for clean growth has been a policy of the UK government since at least eight years ago, when it was made a "grand challenge" of the 2017 industrial strategy under the Theresa May government[95], there is currently a growing discontent over "the cost of net zero". This has led in the recent past to a dichotomy being drawn between decarbonisation and economic growth. This can in large part be attributed to the upfront costs of transformation: achieving net zero requires significant investment, with the Office for Budget Responsibility estimating a cumulative cost of £1.4 trillion by 2050[96]. The majority of this investment, over 70 percent, is expected to come from the private sector[97]. The returns on this investment are enhanced opportunities for growth, with increases to productivity, incomes and employment. The UK's net zero economy is already showing strong growth and attracting significant private investment, with a value of £74 billion and a 9 percent rate of growth in 2023.[98]

Yet the transition to net zero is not just about costs, but also about unlocking the full benefits of investment. The UK is in a race to transform its economy, and it must compete with other countries to develop new skills, technologies, and markets. In this competition, the UK has a significant advantage in the form of a strong scientific base, which can be used to develop new knowledge clusters and supply lines – providing that the investments made are sufficient and timely[99]. Under the aegis of reaching net zero, the country can focus on developing low-carbon technology to serve strategic energy independence needs while providing well-paid, highly skilled jobs for British workers[100]. The UK can build on its advantages to boost productivity and growth, to the ultimate benefit of both citizens and the national exchequer – but this requires the case for productivity to be forcefully made and that fairness is embedded in all aspects of the transition.

It is well understood that the UK has a productivity, underinvestment, and growth problem[101], and achieving net zero will require innovation to get more from existing resources. The transition to a net zero economy encourages innovation and efficiency[102]

95 BEIS (2017) – Industrial strategy: building a Britain fit for the future
96 CityAM (2021) – UK fiscal watchdog puts cost of reaching net zero at £1.4 trillion
97 Energy UK (2023) – The Clean Growth Gap
98 Energy & Climate Intelligence Unit (2024) – The UK's net zero economy
99 Ibid.
100 Ibid.
101 Resolution Foundation (2022) – Stagnation nation
102 Energy & Climate Intelligence Unit (2024) – The UK's net zero economy

– net zero jobs are 1.6 times more productive than the average UK job, generating £114,300 per year on average. The case for decarbonisation is therefore a case of investing in the country's capacity for growth, yet this must be done in such a way that excessive costs are not borne by the energy bill-paying public. The road to 100 percent clean power is one that requires a foundation of investment in renewable technologies, and it is household energy bills that have borne levies to subsidise renewable deployment and other schemes to alleviate fuel poverty; environmental levies account for around two-thirds of levy revenue, with social schemes such as the Warm Home Discount making up the other 38 percent[103].

Although it is the case that "green levies" make up a relatively small proportion of energy prices – 11 percent as of Q4 2024[104], although it should be noted that the seasonal fluctuations of energy bills can change this proportion quite significantly – it has been shown that such taxes on household energy bills can increase voter hostility to green energy policies, slowing the pace of renewables deployment[105]. Some have called for a shift towards general taxation or a rebalancing of the levies so that the costs of clean electricity generation are split more equally between electricity and gas bills in order that those more vulnerable households that rely on electrical heating are not disproportionately impacted by the levies[106]. Others note, on the other hand, the significant role that the social levies play in alleviating fuel poverty for vulnerable households[107].

The economic case for capital investment in renewable energy infrastructure is easy to make, as is the political case for rethinking the levying of charges. Alleviating the up-front burden of renewable capital infrastructure on energy bills is an economic case as much as a political one, however, as the cost of living crisis is in itself a major contributing factor to economic stagnation. The rebalancing of up-front payments is therefore a necessity for overcoming political barriers to renewable deployment, tackling fuel poverty and achieving the government's overarching mission of economic growth. At the local level, addressing this issue will help local government play its role in encouraging community participation in the energy transition by making the argument for renewables that much easier to make.

103 Nesta (2024) – Household energy bills include green levies. What are they and why do we need to pay them?
104 House of Commons Library (2024) – Domestic energy prices
105 Aklin (2021) – Do high electricity bills undermine public support for renewables? Evidence from the European Union
106 Nesta (2024) – Household energy bills include green levies. What are they and why do we need to pay them?
107 The Eco Experts (2024) – What is the green levy and should we scrap it?

Summary: Considerations for the Local Power Plan

To ensure capacity is available to meet energy policy goals, government should:

- **Establish regional energy data centres** to help local authorities make evidence-led plans.
- **Provide support in procurements and contracting** for councils to access complex markets.
- **Provide capacity support for planning applications**, to accelerate the planning process for new local infrastructure.

To ensure that the Local Power Plan is politically viable at place level, government should consider **moving the capital burden of renewable infrastructure** away from household bill levies.

CHAPTER THREE

Public and private sector roles at local level

The role of the local state in decarbonising electricity across England is intrinsically complex and diverse, particularly in the context of the ongoing local government reorganisation agenda, necessitating a multifaceted awareness and approach incorporating strategic governance and policy intervention from all tiers of government, and the development of financial and technical mechanisms at the national level. The private sector also plays an essential role in the financing and execution of local decarbonisation initiatives, leveraging its capacity to mobilise substantial capital, deploy advanced technical expertise, and optimise operational efficiencies. Its pivotal role is underscored by the imperative to achieve net zero at pace, wherein public-private synergies are indispensable.

Key points

- Local authorities play a vital role in decarbonising electricity through strategic governance, policy intervention, and financial mechanisms, working with the private sector to achieve net zero goals.
- Community engagement is essential for effective decarbonisation policy, requiring meaningful interactions with an array of groups and the fostering of grassroots collaboration.
- Local authorities can leverage their land ownership and planning competencies to promote renewable energy projects, reduce complexities in land acquisition, and incorporate energy considerations into development plans.
- Public-private partnerships are crucial for bridging the gap between national decarbonisation ambitions and local action; mobilising resources, expertise, and funding for community-led initiatives.
- Strategic, long-term local energy partnerships can help to decentralise and decarbonise the UK's energy system, empowering communities, reinvesting profits locally, and addressing socio-economic disparities.

3.1 The role of the local state

The alignment of decarbonisation objectives with both locally-defined priorities and tangible institutional capacities, accompanied by an emphasis on transparent public discourse, constitutes a pivotal strategy for garnering decarbonisation support and safeguarding against public disillusionment. Such an approach not only fortifies public trust but also positions local authorities as credible and effective actors within the broader transition towards a sustainable, low-carbon future—garnering both electoral support and market viability.

3.1.1 Place leadership and local engagement

Local authorities function as place leaders, exerting influence through spatial planning, infrastructure development, and strategic partnerships to facilitate locally-led renewable energy integration. Their function as place leaders is characterised by climate emergency declarations and the articulation of decarbonisation roadmaps, including net zero 2030 and 2050 trajectories, while also ensuring carbon mitigation is embedded within statutory local plans and energy strategies. Additionally, local

government can act as a convener of multi-sector collaborations, forging partnerships and mutual goals with private sector, third sector, and community stakeholders, as demonstrated by the Manchester Climate Change Agency[108].

Enabling community participation constitutes another essential facet of locally-led decarbonisation strategies and operation by local authorities, who can facilitate democratic engagement in the provision of renewables at the neighbourhood level. Mechanisms such as participatory budgeting, citizen and youth assemblies, and co-design frameworks empower residents to shape local energy initiatives whilst instilling a sense of purpose to combat climate change and guarding against the paralysis of nihilism. There is an efficacy to grassroots mobilisation in the energy transition that is unmatched when cultivated well and accompanied by public awareness campaigns to foster behavioural change in harder-to-reach, easier-to-ignore silent majorities – who are neither here nor there on the specifics of net zero policy but are nonetheless inactive and do not want to see their bills increase[109].

Councils are also crucial conveners and can be critical supporters for local businesses in the transition to decarbonised local energy systems due to their regulatory authority, place-based knowledge (and informed strategies), and ability to mobilise resources and partnerships. By leveraging their unique insights into community needs and facilitating connections among various key actors, councils can significantly enhance the capacity of local businesses to contribute to decarbonising local energy systems by integrating them into greener local supply chains and incentivising greener practices.

Community engagement must become a *modus operandi* for councils for effective decarbonisation policy development, requiring meaningful interactions with diverse groups, especially young people and socio-economically disadvantaged groups. Authorities must move beyond superficial consultation toward reciprocal engagement that fosters grassroots collaboration. Local third and VCSE sector organisations, often embedded within communities, working at a variety of scales, provide the necessary social capital and infrastructure for such requisite renewed, participatory processes.

Participatory budgeting, for example, empowers local residents to directly influence budget allocations, fostering more democratic engagement and co-production of local energy solutions. While previously applied to smaller community projects, the scalability of participatory budgeting can allow it to become a crucial tool in

108 Manchester Climate Change Agency (2022) – Update of the Manchester Climate Change Framework

109 Axon & Morrissey (2020) – Just energy transition? Social inequities, vulnerabilities and unintended consequences

garnering support and participation in regional and national decarbonisation goals. For instance, local authorities could integrate participatory budgeting into Local Area Energy Planning by enabling residents to prioritise investments in renewable infrastructure, retrofitting, or electric vehicle networks. Such an approach could bridge gaps in local government capacity and, by devolving decision-making on portions of procurement spend, could channel community-driven innovation into key projects, enhancing transparency and public buy-in while seeking to address systemic barriers like funding shortfalls and overt centralisation[110].

Mobilising young people in climate governance and local energy systems is also crucial for driving systemic change and staving off paralysing climate nihilism. Empowering young people to influence climate policies, in their own environments, on their own terms, fosters innovation and works to build intergenerational climate consciousness as well as the types of operational frameworks and working relationships that will be critical to ensuring the long-term sustainability and market viability of renewables and green climate solutions. Likewise, engaging vulnerable communities, disproportionately affected by structural inequities, and mistrustful of government institutions to deliver for them, is equally important. Addressing their specific needs requires targeted interventions, with local organisations and hyper-local anchors acting as trusted intermediaries to ensure their concerns shape policy responses.

3.1.2 Landowners and development authorities

Within local government, this policy intersectionality can and has been captured through the breaking down of silos and inter-departmental operations on matters of climate and other adjacent strategies. To this end, local authorities also exercise notable regulatory authority through their land ownership and planning competencies, shaping the trajectory of renewable adoption within their jurisdictions. As owners of public assets with considerable latent decarbonisation potential (roofs for solar, retrofitting buildings, etc.), councils can directly commission renewable energy projects, positioning them as trailblazers in facilitating the viability of renewable energy solutions in local, regional, and, with time, national markets. Councils can also enable private and community-driven renewable developments by leveraging land leasing mechanisms.

110 Sugar et al. (2022) – Local decarbonisation opportunities and barriers: UK public procurement legislation

Energy planning, facilitation, and enablement are critical components in the advancement of projects aimed at transitioning towards local decarbonisation. As both landowners and planners of development with notable convening power, local authorities hold a unique position of influence in shaping the energy landscape. The strategic design, implementation, and operation of energy systems require a coordinated approach that integrates land use planning with decarbonisation objectives, ensuring alignment with broader environmental and socio-economic goals.

One significant barrier to the successful deployment of all energy projects, particularly community-led ones, is the current grid application process. The existing procedures are often slow and cumbersome, placing communities and local authorities at a disadvantage compared to commercial developers who typically possess more resources, expertise, and personnel in navigating such complexities. These inefficiencies delay project timelines, increase costs, and ultimately deter local authorities from leveraging their landholdings for ambitious energy initiatives.

To mitigate these challenges, it is essential to implement changes that streamline the application and connection process, making it more accessible and equitable for local authorities. Simplifying regulatory requirements and providing clear, consistent guidelines can facilitate quicker approvals and foster a more conducive environment for local energy projects. To this effect, projects that align with broader decarbonisation objectives should be fast-tracked for grid connection to spur on a locally-led just transition and aid in the market viability of such projects.

As landowners, local authorities can also directly allocate sites and public buildings for renewable energy installations, such as solar, wind, and battery storage facilities, thereby reducing the need for complex land acquisition processes. Moreover, as planning authorities, councils can incorporate energy considerations into zoning regulations, development plans, and building codes, ensuring new developments are hardwired with energy efficiency and renewable integration.

Statutory planning powers, as they stand, can reinforce these efforts, allowing local authorities to integrate binding sustainability criteria within Local Plans, thereby mandating on-site renewable generation through mechanisms such as the Merton Rule. The streamlining of permitting processes for futureproofed, renewable projects, while balancing heritage conservation and ecological integrity, further underscores the strategic function of planning authorities.

3.1.3 Finance and procurement

The economic and financial agency of local authorities is crucial in unlocking investment and operational capacity for the proliferation of decarbonisation initiatives that have longevity and public enthusiasm. Procurement serves as a conduit for sustainable investment in this regard, allowing councils to mandate low-carbon supply chain criteria and prioritise contracts with local SMEs and renewable energy providers. Operationally, local authorities are learning that integrating stringent sustainability criteria into procurement frameworks can enhance market certainty for renewable developers and strengthen local supply chain resilience whilst, in the case of long-term, strategic partnerships, leveraging public sector demand as a catalyst for the growth of regional green economies.

Building investor confidence is foundational to successful private sector engagement in community energy projects and the provision of relevant necessary infrastructure. Transparent governance structures — such as independent boards and/or cooperative governance models — integrated into partnerships and project business cases ensure the efficient use of funds and alignment with both community and investor objectives, and the broader imperative for clean power by 2030. By minimising perceived risks and fostering trust, clear governance frameworks make projects more attractive to private investors. Additionally, strategies that emphasise scalability and aggregation, such as pooling smaller projects into large portfolios, can streamline administrative processes and diversify risks across multiple initiatives. For example, regional hubs, perhaps facilitated by combined authorities, that aggregate solar installations can secure joint private investment, enhancing both economic viability and operational efficiency for the sake of a just energy transition.

The deployment of innovative financial instruments, to this end, facilitates capital mobilisation for large-scale energy transition projects that are locally-informed, with contractual obligations that are rooted in delivering sustainable energy efficiency for local residents and communities. Community benefit agreements ensure that a portion of profits generated by private investments are redirected into local social initiatives, such as public infrastructure or fuel poverty measures. This strategy can foster a local acceptance of private-led projects while reinforcing community priorities as a guiding principle for partnerships. Similarly, revenue-sharing models provide another viable approach, where communities receive a share of profits made from renewable energy projects directly, ensuring continuous financial contributions to local development and public services while delivering predictable returns to investors.

However, despite opportunities presented by private sector capital, limited access remains a critical barrier, as many communities and indeed local authorities lack the financial literacy or resources to develop large-scale tenders or investment-ready proposals. Capacity-building initiatives and bespoke advisory support from all tiers of government can bridge this gap, equipping community groups with the tools necessary to attract and engage local private capital.

Green finance has emerged as a critical instrument in the global effort on climate change, providing the necessary capital to support sustainable development and decarbonisation. Local authorities, in particular, have increasingly turned to green financial mechanisms to fund projects aimed at reducing carbon emissions, encouraging community ownership, and enhancing environmental resilience. These practices encompass a range of tools, including bonds, sustainability-linked loans, and innovative community-based municipal investments (CMIs), all designed to channel private capital into public climate initiatives. Green bonds, exemplified by West Berkshire's issuance for solar infrastructure financing, offer such a scalable investment mechanism – particularly if enabled through GB Energy. By leveraging these financial instruments, local authorities can accelerate the implementation and operation of net zero strategies and decarbonisation.

Evidence from initial CMIs shows they improve public trust in local governance by offering transparent, impactful, and low-risk investment opportunities[111]. CMIs also attract participants who typically avoid public forums, expanding civic involvement in climate action. Data from HMRC and ONS indicates £3.34 trillion in investable UK assets, including pensions and ISAs. While not all align with CMI risk profiles, 98 percent of investors considered "altruistic" or "ethical" have expressed interest in such assets, representing approximately 8 million people nationwide. According to research by the University of Leeds, a conservative estimate suggests that just 0.25 percent of this wealth could fund CMIs, yielding a potential market of £9bn[112]. This highlights the potential of CMIs to mobilise private capital for decarbonisation goals, advancing local net zero and climate emergency strategies whilst strengthening public buy-in and sense of ownership over the energy transition.

111 Davis (2021) – Community municipal investments: Accelerating the potential of local net zero strategies
112 Ibid.

Aside from finance, public procurement has increasingly been recognised as a crucial instrument in advancing decarbonisation objectives. With an annual public spending capacity of upward of £390bn, procurement extends beyond its traditional role of securing goods and services, emerging instead as a strategic mechanism for driving economic, social, and environmental change. The integration of sustainability criteria into procurement processes is evidenced by policies such as the mandatory inclusion of Carbon Reduction Plans in major contracts. This government has signalled a clear governmental intention to align public spending with the nation's broader net zero ambitions, also seeking to embed decarbonisation at the core of procurement activities.

Local government has a particularly pivotal role to continue playing in this paradigm shift, leveraging procurement to influence not only local economies but also the environmental footprint of supply chains, public services, and infrastructure. As the government intensifies efforts towards achieving net zero targets, green public procurement (GPP) exemplifies a transformative approach, where environmental criteria are systematically integrated into procurement processes and partnerships. This can ensure that public sector and local supply chains adhere to stringent sustainability standards, thus amplifying the impact of local public spending on environmental outcomes. Through strategic procurement such as this, local authorities can set benchmarks for private sector partners, fostering a localised culture of sustainability that permeates all operational levels of supply chains.

Local government reform and decarbonisation

Ongoing reforms in local government reorganisation are deeply intertwined with the country's decarbonisation and net zero ambitions, particularly through the mechanisms of devolution, combined authorities, and spatial energy strategies. The English Devolution White Paper outlines a transformative vision for local governance, aiming to empower regions with greater autonomy and resources—many of which can be directed, whether statutorily or not, towards climate action. By establishing Strategic Authorities, the reforms will seek to streamline decision-making and funding processes, whilst granting competencies in key areas such as transport, housing, and energy, which, given their intersectionality, are all critical to an accelerated just transition. For instance, the devolution of retrofit funding and the devolution of the Warm Homes Social Housing Fund will allow regions to enhance energy efficiency in buildings and develop renewable energy projects with much greater strategic and operational efficiency.

Moreover, the reforms will emphasise the importance of spatial energy strategies, which are crucial for coordinating decarbonisation efforts across different scales of geography and governance. The creation of Spatial Development Strategies under the devolution framework will require regions to align their energy and infrastructure plans with national net zero objectives, including the development of Local Power Plans supported by GB Energy. The reforms also highlight how cross-boundary collaboration on decarbonisation is an absolute necessity, as such projects and wider infrastructure changes will undoubtably require coordination across multiple jurisdictions and governance arrangements, whether a Strategic Authority is in place yet or not. Otherwise, the types of established working relationships and governance arrangements necessary for Strategic Authorities to operate effectively on decarbonisation will be stunted in some areas and thrive in others, creating further disparities and risking further inequalities in household energy bills.

3.2 The role of the private sector

Public-private partnerships (PPPs) continue to play a transformative role in the country's transition to a net zero energy system, a role that is set to adapt and grow further when anchored in locally-driven, community-led initiatives. By bridging the gap between national decarbonisation ambitions and grassroots action, PPPs are able to mobilise resources, expertise, and funding that individual communities often lack. The transition to net zero requires collaboration across multiple industries—including but not limited to energy, finance, technology, manufacturing, transport, and broader supply chains—where PPPs act as enablers. The intersection of these sectors enhances innovation when managed and convened well, as well as pooling resources and integrating diverse expertise. Moreover, community-led decarbonisation projects contribute beyond clean energy production, creating local jobs, stimulating secondary businesses, and retaining revenue within local economies, amplifying socio-economic benefits beyond initial investments and ventures.

3.2.1 Considerations of public-private partnerships

Partnerships are a prevalent and effective mechanism for the provision of decarbonised energy infrastructure, utilised by all levels of government as a means of alleviating the financial burdens and resource intensity associated with project implementation, operation, and delivery.

Capital and risk

By leveraging capital from private sector partners, these collaborations not only reduce the immediate fiscal pressures on public budgets but also introduce technical expertise and the dissemination of local industry best practices. This potential influx of specialised knowledge and resources can accelerate the deployment of renewable energy projects at scale and enhance their operational efficiency, as well as working to boost the viability (and therefore investor confidence) of such projects in the long-term. PPPs can facilitate a strategic redistribution of risk wherein local authorities and other public sector bodies primarily concentrate on policy formulation and regulatory oversight, while private companies assume roles in construction, operation, and maintenance. Typically, the state shoulders long-term macroeconomic risks, whereas the private sector manages short-term, performance-related risks.

Private sector involvement through PPPs is viewed as indispensable in addressing ongoing market failures to deliver the progression of decarbonisation at a necessary scale and pace. The provision of at-risk development capital for projects, which local authorities often lack the financial capacity to undertake independently, underscores the

critical role of strategically incentivised private investment. Such an infusion of private funding not only bridges financial gaps but can also catalyse the implementation of innovative energy solutions that would otherwise remain unrealised or too small-scale due to budgetary constraints and a lack of investor confidence.

Furthermore, the strategic deployment of development capital works as a catalytic instrument in de-risking early-stage decarbonisation and renewable energy markets, which might otherwise be stymied by the perceived financial volatility inherent in nascent green development and decarbonisation projects. Development capital serves to bridge critical financing gaps, thereby fostering local markets conducive to sustained private sector engagement on decarbonisation-adjacent partnerships and projects. Consequently, the integration of private sector collaboration and how private sector actors ought to be engaged on a local basis must constitute a foundational pillar of local decarbonisation strategies. This dual focus on financial mobilisation and operational pragmatism is essential to ensure that local decarbonisation trajectories are both ambitiously conceived, methodically implemented, and operated with longevity and scalability.

Contracts and capacity

However, the successful integration of private sector partners into the energy transition necessitates a deliberate and strategic approach to incentivisation. An essential challenge lies in aligning private sector contributions to such partnerships with the broader public interest. It is therefore key to delineate clearly which components of individual contracts and the broader energy transition should be managed by private entities and to establish mechanisms that ensure these contributions yield tangible benefits for local communities by ensuring local authorities or the broader public sector retains enough administrative and managerial control over the delivery of such partnerships and their constitutive projects. Such contract design and incentive structures must be thoughtfully processed to promote not merely participation but active engagement by partnerships in creating value at the local level.

Thus, to this end, a fundamental principle underpinning effective PPPs is the commitment to value creation rather than value extraction. Ensuring private sector participation does not devolve into mere profit-seeking at the expense of community welfare becomes increasingly critical by the day, as public support and a sense of progress on decarbonisation is a very delicate, and in some places waning, phenomenon so further value extraction will produce further discontent. Policies such as local content regulations, implemented to promote the use of domestically or distinctly locally produced goods and services, and social value procurement can play a crucial role in embedding such an ethos into the operational fabric of PPPs.

An additional layer of complexity in the effective deployment of PPPs for local decarbonised energy systems is the need to build and sustain the in-house skills and capacities of local authorities. A pronounced asymmetry exists between the technical competencies and strategic capacities of private companies, particularly within larger energy suppliers, and those currently found within local authority departments, engendering frictions in the negotiation and implementation of partnerships, as well as impeding the seamless integration of proprietary data streams.

At its worst, this 'blackboxing' of data and imbalances in skills and capacity has already seen local authorities trapped in long-term contracts with very little administrative or managerial control, essentially frozen out of infrastructure or service delivery that manifests in misaligned objectives, where private sector imperatives for profitability have failed to coalesce with public sector goals of equitable and sustainable development. The challenge, therefore, lies in designing contracts and governance frameworks that not only incentivise private investment but also codify mechanisms for transparent, accountable partnerships working in tandem towards decarbonisation goals.

The ability to negotiate, design, and operationalise PPPs effectively demands a level of expertise that transcends routine administrative functions though. This necessitates continuous investment in capacity-building initiatives that equip local government officials with the technical, financial, and legal acumen required to manage these partnerships. Moreover, to ensure the longevity and consistency of these initiatives, it is imperative to insulate them from the vicissitudes of political cycles. Developing institutional frameworks that embed PPP expertise within the structural fabric of local authorities can help achieve a degree of continuity that persists beyond electoral changes.

PPPs also attract varied private sector players–from large energy companies to small tech firms—each potentially contributing unique resources and capabilities when leveraged within a local context. Ownership structures can, of course, vary, from fully private investments to community-owned models with public subsidies but PPPs are able to account for this variability provided flexible arrangements are put in place where investment and ownership are shared across this spectrum, balancing profit motives with locally-defined socio-economic benefits and decarbonisation goals. Different actors will beget necessary nuance in exactly how to model PPP contracts to this end, so early pre-engagement with the supply chain and local markets is vital. Local authorities can also leverage public assets like rooftops and land through PPPs to deploy solar farms and district heating networks, while private partners contribute technical innovation.

Trust, transparency and relationships

Trust and transparency are fundamental to the long-term success and public acceptance of PPPs for local decarbonisation. Given the frequent scepticism towards large corporations, particularly those within an energy sector that is currently garnering increased negative attention due to rising bills, ensuring open governance structures with robust accountability and scrutiny mechanisms that produce publicly accessible insights is critical. PPPs must actively work to foster community confidence by practising shared governance and project co-design models that are informed by local voices and general sentiment in decision-making. Without meaningful engagement, private-led projects risk being perceived as more top-down initiatives that impose external priorities and extract value, rather than collaborative ventures addressing local needs and creating value.

Partners must, therefore, go beyond conventional stakeholder consultations, embedding themselves within communities, approaching them as place experts with day-to-day lived experience, and demonstrating a willingness to align commercial strategies with ascertained local socio-economic priorities. Transparency in financing, profit-sharing, operational costs, and project timelines, practiced in a way that reaches out to communities, rather than assuming information has been processed by virtue of simply being available, can further mitigate concerns about corporate overreach into public affairs, reinforcing the legitimacy of PPPs in the public eye.

The strength of local relationships significantly influences the success of community-focused green PPPs. When private companies already have an established presence within a locality or community—either through past projects, local employment ties, or existing infrastructure collaborations—they are often much better positioned to initiate new decarbonisation initiatives[113,114]. These pre-existing relationships foster goodwill, reduce friction in the design and development phase, and increase the likelihood of projects delivering socio-economic co-benefits and gaining public acceptance. To a similar end, partnerships with trusted local institutions, such as cooperatives, local businesses, or existing community energy groups, can further enhance the credibility of PPPs by demonstrating a tangible commitment to local interests and positioning private actors as well-integrated and contributing to local economic and environmental resilience.

113 Walton & Rivers (2011) – A missed opportunity: Understanding community stakeholders' perspectives
114 Adekola & Clelland (2019) – Two sides of the same coin: Business resilience and community resilience

However, by this very token, one of the key challenges in scaling community-driven PPPs is the deeply relational nature of successful working partnerships. Decarbonisation initiatives thrive when local authorities, businesses, and community groups cultivate strong, trust-based relationships between themselves and respective energy companies—yet this dynamic makes it difficult to create a single, transferable PPP blueprint beyond a vague set of principles and contractual instruments. Instead of rigidly standardised models, a more flexible framework should therefore be developed, one that provides guiding principles while allowing for adaptation to local contexts and relationships. This is attainable through structured yet adaptable governance mechanisms, such as long-term strategic partnerships, co-ownership models, community benefit agreements, and open-book contracting. By institutionalising best practices from previous successful partnerships, PPPs can be structured in ways that balance replicability with the necessary nuance required for locally-specific relationships.

Principles for effective partnership

The vision laid out in the GB Energy founding document is one of local authorities acting with the company and private partners to deliver at pace and scale, whilst also involving and facilitating community-level implementation—implying a mature and flexible model of PPP and a respectable attempt to try and develop a replicable framework for green PPPs. Nonetheless, this flexibility will mean that the design of partnerships is therefore crucial, with both national and international examples pointing to a series of general principles for constructing effective PPPs, including:

- clearly defining roles and responsibilities (to avoid conflicts and ensure accountability)[115];
- allocating risk appropriately (to reduce financial risks throughout the partnership's lifecycle)[116];
- agreeing measurable and enforceable performance indicators (to ensure all parties remain accountable to their commitments)[117];
- instilling transparency and public engagement (shown to enhance socio-economic development when practiced and communicated effectively)[118];
- embedding flexibility for adaptation to local contexts and changes in circumstance (enhances long-term performance of PPPs by allowing for adjustments in response to unforeseen challenges)[119].

115 Ke et al. (2023) – Making sense of the definition of public-private partnerships
116 Akomea-Frimpong (2020) – A holistic review of research studies on financial risk management in public-private partnership projects
117 Tian et al. (2022) – How does contract flexibility affect the sustainability performance of public-private partnership projects? A serial multiple mediator model
118 Wang & Ma (2020) – Public-private partnership as a tool for sustainable devleopment
119 Tian et al. (2022) – How does contract flexibility affect the sustainability performance of public-private partnership projects? A serial multiple mediator model

3.2.2 Long-term local energy partnerships

Strategic, long-term local energy partnerships represent a transformative approach to decentralising and decarbonising the country's energy system, combining community engagement, innovative business models, and strategic collaboration to accelerate a locally-driven just transition. By prioritising local ownership and governance, these partnerships empower communities to shape their energy futures, reinvest profits into local services, and address key socio-economic disparities. The model aligns closely with the government's broader ambitions for Local Power Plans within the GBE founding document, which is set to provide financial mechanisms like low-interest loans and grants to support renewable energy infrastructure. Such partnerships would also dovetail with national strategies like the *Clean Power 2030 Action Plan*, which underscores the need for collaboration and regulatory reforms to enable the faster deployment of decarbonisation projects[120].

The appeal of strategic local energy partnerships lies in their ability to bypass traditional barriers to innovation by fostering direct collaboration between local energy stakeholders. These partnerships circumvent fragmented decision-making structures and lengthy tender processes, enabling agile and resilient responses to local energy challenges. Local authorities such as Bristol, Coventry, Plymouth and many more have emerged as pioneers to this end, leveraging long-term strategic partnerships to integrate renewable energy into housing developments, retrofit public buildings, and establish community-owned wind or solar projects. These initiatives not only reduce carbon emissions but also deliver tangible co-benefits, such as lower energy bills for residents, job creation in green industries, and improved local energy security.

120 DESNZ (2024) – Clean Power 2030 Action Plan

City Leap Energy Partnership, Bristol

The City Leap Energy Partnership exemplifies an advanced paradigm of municipally-driven decarbonisation, integrating public-private synergies to achieve systemic urban energy transformation across Bristol. Established in 2022 as a twenty-year joint venture between Bristol City Council, Ameresco, and Vattenfall Heat, the initiative seeks to mobilise over £1bn in strategic investment to facilitate Bristol's transition to a net zero emissions city. The collaborative framework used leverages the regulatory authority of the council, Ameresco's infrastructure specialisation, and Vattenfall's expertise in district heating, collectively engineering a comprehensive approach to sustainable urban energy redevelopment.

A particularly salient characteristic of City Leap lies in its deeply embedded localism, ensuring a proportionate distribution of economic and social dividends across Bristol's diverse communities. The establishment of a £1.5 million Community Energy Fund underscores a commitment to fostering grassroots renewable energy initiatives, thus enhancing civic engagement in the city's broader decarbonisation trajectory. Moreover, the initiative mandates a £61.5 million allocation to social value enhancements, encompassing the creation of over 1000 skilled employment opportunities and apprenticeships, thereby reinforcing the regional workforce's capabilities in emergent energy sectors.

Financially, City Leap is predicated upon an initial £424 million capital injection earmarked for the expansion of Bristol's district heating networks, the deployment of solar PV infrastructure across local public sector assets, and the execution of large-scale retrofitting projects aimed at optimising energy efficiency within social housing portfolios. This investment model is demonstrative of effective calibration between the risk mitigation benefits of public sector oversight and the dynamic capital influx facilitated by private actors involved in PPPs.

However, the partnership is not devoid of complexities or challenges. The extensive scale of upgrading relevant infrastructure has necessitated a demanding, agile, and iterative multi-stakeholder coordination and project management framework to accommodate evolving technical, political, and regulatory contingencies. Moreover, the project's dependency on sustained funding and investment requires relative policy coherence and investment continuity to sustain its ambitious long-term objectives.

Critically, the success of these partnerships hinges on their alignment with and flexibility around evolving government policy frameworks. Recent reforms reflect a growing recognition of the need to balance community engagement and public on-boarding with urgent decarbonisation targets. These efforts are not merely technical exercises but also social interventions that must seek to address pressing issues such as fuel poverty and community cohesion by having locally-defined outcomes and participatory decision-making mechanisms designed into respective contracts.

The strategic value of local energy partnerships extends beyond immediate environmental gains; by creating institutional frameworks that prioritise long-term planning and cross-sector collaborative working such partnerships can establish blueprints for scalable, replicable solutions. The *Plymouth Energy Community*, a community benefit society, has reinvested over £1m from renewable energy projects into local fuel poverty alleviation schemes, showcasing the potential for synergies between environmental and social goals if partnerships are scaled-up and pursued on a regional basis.

Some more specific learnings for local energy partnerships can be derived from the findings of the Local Energy Oxfordshire trial, a four-year initiative with multiple partners which looked at the prospects for smart, flexible local energy systems integrating community-level schemes. The final report of the project stressed the importance of investing in data, enhancing digital capabilities, involving 'aggregators' and, above all else, the evident need for local area energy planning to achieve net zero[121].

3.2.3 Coventry City Council's Strategic Energy Partnership

The Strategic Energy Partnership (SEP) between Coventry City Council and E.ON represents a unique, sophisticated and forward-looking collaboration aimed at addressing the multifaceted and interdependent socio-economic and environmental challenges facing modern urban centres in the country. Launched in September 2023, this pioneering initiative illustrates how the alignment of municipal governance and private enterprise can achieve ambitious decarbonisation goals while delivering substantial resident and community benefits. This analysis explores the SEP's formation, operational model, early successes, and prospective contributions within the broader context of green governance and policy discourse, with particular implications for the government's GB Energy investment vehicle.

121 Local Energy Oxfordshire (2023) – Project LEO Final Report: a digest of key learnings

At the core of this partnership lies Coventry City Council's determination to tackle the climate emergency, drive economic regeneration, and reduce structural inequalities within their locality. These objectives, articulated in the One Coventry Plan, demanded a paradigm shift in energy infrastructure development for the area, one that could overcome institutional limitations such as resource constraints, technical expertise deficits, and fragmented, reduced funding access. To address such gaps, Coventry adopted a transparent and competitive procurement process to identify a strategic energy partner capable of delivering long-term value, aligning themselves with overarching strategic goals, and mobilising external capital. E.ON's significant local presence and shared commitment to achieving net zero made it an ideal partner for the transformative endeavour.

The SEP's approach is distinguished by its holistic view of interconnected urban challenges. Like other cities nationally, Coventry's housing, transport, and energy crises are deeply interrelated. Recognising energy infrastructure as a foundational nexus, the SEP rejects piecemeal interventions in favour of a cohesive and strategic framework. Its Coventry Energy Plan, developed following dialogue with stakeholders such as National Grid and major energy users, provides a structured roadmap for Coventry's energy transition, ensuring prioritisation of projects with synergistic social, economic, and environmental benefits.

The SEP exemplifies an innovative paradigm for public-private collaboration by positioning Coventry as a "living laboratory" for piloting and scaling advanced localised energy solutions. Initiatives such as a city-wide EV charging strategy, photovoltaic installations on public buildings and schools, and a focus on creating a circular economy embody this experimental ethos. By prioritising scalability, the partnership ensures that successful projects in Coventry can serve as templates for replication across other urban centres. By prioritising long-term, strategic performance, the partnership can benefit from flexibility and a mutual alignment between partners towards achieving shared outcomes.

Efficiency underpins the SEP's operational philosophy, marking a notable departure from traditional, fragmented local government energy initiatives. Its long-term perspective enables strategic resource allocation, reducing inefficiencies and unlocking economies of scale. E.ON's established procurement expertise and access to diverse funding streams—including third-party investments and revenue from commercial ventures—further enhance the cost efficiency of the partnership. By consolidating decision-making and coordination under streamlined governance structures, the SEP mitigates administrative inefficiencies and aligns individual projects with broader strategic imperatives.

The investment strategy of the SEP is guided by four thematic pillars;

- clean local energy,
- jobs and skills,
- innovation and scale, and
- community benefits.

These priorities direct resources toward projects with transformative potential. For instance, a proposed solar PV farm directly supports Coventry's low-carbon transition, while the partnership's apprenticeship programme and commitment to local sourcing strengthen the regional economy through job creation and supply chain development.

Equity and inclusivity are also central to the SEP's stated ethos. Initiatives such as the Community Benefit Fund and energy advisory services underscore the partnership's dedication to working with vulnerable populations to ensure they are are included in any ongoing energy transition across the city. Investments in domestic energy efficiency, aimed at reducing fuel poverty and improving living conditions, further illustrate this commitment. By fostering community engagement and delivering tangible benefits, the SEP seeks to continue building the local social legitimacy necessary for executing such ambitious, large-scale infrastructure projects.

Despite its promising trajectory, the SEP faces several challenges. Ensuring alignment with long-term objectives amidst shifting political landscapes requires proactive stakeholder engagement. Coventry's inclusive approach—involving cross-party collaboration—demonstrates the importance of cultivating political consensus for transformative initiatives. Public acceptance, as noted, also remains critical, particularly in the context of economic uncertainty. The SEP's focus on transparency, community benefits, and targeted communication is essential for fostering trust and mitigating resistance.

Integrating the SEP within the broader national policy framework presents additional complexities. Leveraging opportunities such as the government's GB Energy plan and accompanying investment vehicle, as well as ongoing devolution initiatives, will be crucial for sustaining momentum and accessing necessary funding. Close collaboration with combined authorities and national agencies will further ensure that the SEP aligns with national priorities and maximises systemic contributions.

Coventry's SEP offers a compelling model for local authorities seeking to address intertwined socio-economic and environmental challenges. Its holistic strategy, forward-looking partnership model, and emphasis on efficiency and equity demonstrate the transformative potential of coordinated public-private collaborations and urban partnerships. By scaling innovative solutions from neighbourhood by neighbourhood

to city-wide, fostering economic resilience, and maintaining a steadfast commitment to long-term objectives, the SEP positions Coventry as a trailblazer in putting the UK's transition to a sustainable, net zero future into practice.

Procuring for a Strategic Energy Partnership

Coventry's SEP is anchored by a 15-year contractual framework valued at £2bn, providing the stability needed to implement an expansive suite of energy projects aligned with Coventry's climate strategy and net zero roadmap. Initial efforts focused on establishing robust governance mechanisms, with first-year sessions to agree on objectives and strategies between the partners, and facilitating foundation projects, including the *Home Upgrade Grant 2*, deployment of electric vehicle charging infrastructure, and decarbonisation of council-owned assets, ensuring that the partnership's goals align with the needs of Coventry's communities. These milestones demonstrate the partnership's ability to convert public and private investments into scalable, impactful initiatives.

Across types of local authorities, regions and degrees of rurality, the requirements for a strategic partnership will naturally differ. Geography, population demographics and cultural differences are likely to produce a variety of partnerships under the broad umbrella of a strategic energy partnership. Nevertheless, there are certain principles that can be extracted into a broad framework. To establish a long-term strategic energy partnership of their own, local authorities should seek to adopt a holistic procurement approach that prioritises sustainability, social value, economic efficiency, and resilience over time. This involves integrating environmental and social value considerations into *all* procurement decisions and training all personnel with relevant responsibilities on how to do so. Effective governance structures will also prove essential for the success of such partnerships. Establishing clear, joint governance arrangements, where the public sector retains administrative and managerial control, facilitates collaborative decision-making, an intrinsic strategic value to contracts, and ensures alignment of objectives between a local authority and respective energy partners.

3.3 The importance of planning

Planning plays an essential role in local government's efforts to decarbonise their energy systems, as it is the fundamental facilitator of integrating renewable energy sources, developing sustainable infrastructure, and ensuring that the offset and reduction of carbon is embedded within planning permissions. Moreover, the UK's commitment to achieving net zero by 2050 necessitates a comprehensive approach to energy planning, touted as essential for overcoming funding limitations, strategically coordinating resources, and engaging with local stakeholders—all of which are vital factors if the transition to net zero is to be feasible, just, and sustainable. Thus, planning is not merely a bureaucratic necessity; it is a necessary component of any successful decarbonisation strategy from any tier of government.

3.3.1 The planning system and forthcoming reforms

Nestled under the umbrella of the government's mission to "kickstart economic growth" is a commitment to planning reform that should, the government hopes, unblock the clogged-up supply of housing that has become a chronic symptom of the country's economic stagnation and deliver an arguably over-ambitious 1.5 million homes. To date, the government has enacted significant regulatory and policy transformation in a manner that speaks to an environment of wide-reaching and expedited change. Such extensive change may, depending on the success of such measures, either meet the ambitious targets set out at the beginning of this parliament or overextend beyond the capacity of government departments, local authorities, and other stakeholders, bringing unintended consequences, adding systemic complexities, and introducing cascading ill effects.

Within the first six months of the parliament, an updated National Planning Policy Framework (NPPF) took shape following a consultation that the current government initiated not three weeks after taking office. To meet the 1.5 million housing target, the new NPPF introduced a new method for calculating housing need for local authorities that accounts for existing stock and local affordability as well as notable changes to green belt development rules that will see certain sections of green belt land greenlit as an alternative space for development[122]. A small but notable change to the NPPF's wording also intends to make sure that any major housing development provides a mix of affordable housing to meet local needs, rather than ensure at least 10 percent of the total homes on the site are affordable – potentially removing barriers to delivery by alleviating expectations for developers to provide housing below competitive rents.

122 MHCLG (2024) – National Planning Policy Framework

Elsewhere, the government has confirmed that it will take on a more active role in cutting through bureaucratic red tape in order to streamline the delivery of housing and infrastructure developments[123].

It is, however, vital that despite planning reforms to streamline the deployment of significant and necessary infrastructure for the energy transition, that any national decisions remain aligned with the discretion of local stakeholders and that new developments support local and specific community needs.

This year will see legislation to cement planning reform into the regulatory landscape in the introduction of the Planning and Infrastructure Bill, which will codify the powers for government to make decisions on infrastructure and housing as well as scaling-down the statutory consultation process in order to accelerate the process of planning decisions. Likewise, 'Environmental Outcome Reports' are to replace environmental impact assessments in order to ensure better efficiency in the planning system. The government is clear in its conviction that the inefficiencies of the planning system have historically dampened housing supply and therefore will rely on the magnitude of planning reform to deliver its almost impenetrably high housing targets, while also resting much of the onus on local government to deliver on its promised outcomes.

In the context of the energy transition, however, if planning reforms are to deliver anywhere near the targeted 1.5 million homes there needs also to be consideration of the energy needs of development and newly developed homes, including wider energy infrastructure. In order to meet the UK's net zero target, the country requires an almost fully decarbonised housing stock[124], and the CCC has previously noted that the system of Energy Performance Certificates to measure household energy efficiency and environmental impact is inadequate for meeting emissions reductions targets and incentivising energy efficiency[125]. As such, the government's housebuilding drive must be cognizant of the challenges and opportunities surrounding the decarbonisation of homes and the role of housing development in the energy transition.

For instance, the new towns that government intends to develop and the new communities that such widespread developments will engender will require a proliferation of energy infrastructure to meet new, local needs. The government's policy statement on the new towns underlined the intention to build sustainable towns, with a focus on affordable

123 HM Treasury (2025) – Government goes further and faster on planning reform in bid for growth
124 House of Commons Library (2024) – Environmental standards for new housing
125 Climate Change Committee (2023) – Letter: Reform of domestic EPC rating metrics to Lee Rowley MP

housing provision[126]. New, largescale development offers an opportunity to inject environmental sustainability and energy efficiency into urban spaces from their very foundation, and the government should grasp that opportunity with both hands.

The previous government published a consultation on the Future Homes and Buildings Standards, committing in the 2021 Heat and Buildings Strategy to a 'Future Homes Standard' being in place by 2025[127]. Although there have been concerns that additional and more rigorous standards will only serve to increase the complexity and costs associated with development, therefore conflicting with high housebuilding targets, it is the case that higher upfront costs should be weathered in order to reduce long-term costs of poor energy efficiency in homes[128]. The government has made no confirmation on the final specifications of the 2025 Future Homes Standard despite its overarching support for low-carbon and sustainable housing, and it has received criticism for failing to strengthen rules surrounding the requirement of solar panels on new builds[129].

The government has, however, announced the *Warm Homes Plan* to provide monetary support for households to upgrade their homes, with a particular bent towards the widespread deployment of new home heating technologies such as heat pumps[130]. They have committed to providing £13.2bn towards energy efficiency and low-carbon heating, which could require both the deployment of a needs-based system of distribution and support for local authorities to engage the delivery of retrofit programmes[131].

The importance of the NPPF

The updated NPPF notes that, "The need to mitigate and adapt to climate change should also be considered in preparing and assessing planning applications, taking into account the full range of potential climate change impacts."[132] With local authorities having to work extensively, and often beyond capacity, to deliver on the government's local housing requirements, there must be support that ensures local plans can ensure the development of sustainable urban development and infrastructure, that

126 MHCLG (2024) – Policy statement on new towns
127 DESNZ and DBEIS (2021) – Heat and buildings strategy
128 Greater London Authority (2024) – RE: The Future Homes and Buildings Standards: 2023 consultation
129 Current – news (2024) – Housing Ministry refutes claims the Future Homes Standard will be weakened
130 DESNZ (2024) – Clean Power 2030 Action Plan
131 New Economics Foundation (2025) – A blueprint for warmer homes
132 MHCLG (2024) – National Planning Policy Framework

local authorities have the capacity and resourcing to engage with central government's policy strictures, and that, on the wider level, supply chains, skills, and infrastructure can substantiate the balancing act between housing delivery and the energy transition.

Although previous editions of the NPPF have stated that local planning authorities "should support community-led initiatives for renewable and low carbon energy" – whether these be developments identified in local or neighbourhood plans *or not* – the updated version is more ambivalent, only noting that local planning authorities should "recognise that small-scale and community-led projects provide a valuable contribution to cutting greenhouse gas emissions" when determining planning applications[133]. If 8GW of energy is going to be achieved through local and community owned energy projects, then this simply must change.

The formal recognition of the local benefits of community energy projects as a material consideration in planning decisions may support this. However, there are a number of considerations to take into account in legislating for the formal recognition of local benefits in planning decisions, such as the complexity of planning applications and the capacity constraints of local planning authorities (LPAs). If LPAs are to give the appropriate consideration to community energy projects, then they will require the resources and expertise necessary to make such informed decisions.

Furthermore, and more granularly, there needs to be an established understanding of what is meant by 'local benefits', whether these include monetary benefits, and to what extent any local benefits are to be considered in extremis to an agreed upon local plan – in acknowledgement of the principle that planning permission be neither bought nor sold – in order to prevent legal challenges being brought against planning decisions as a result of incoherence in legislation.

In the past, the inability for LPAs to include local benefits as material planning considerations has been used to challenge planning consent for renewable energy projects. As such, recognising local benefits as material considerations may reduce the capacity for individuals or organisations to veto renewable energy projects, in the same manner as removing the requirement for community support for onshore wind projects. There would remain the full gamut of other planning and legislative matters to ensure that community energy projects are appropriate for development and sensitive to the needs of place, but there would be one less barrier to achieving planning consent.

133 Ibid.

Similarly, as with space for community-led housing development, there should be an obligation for LPAs to promote the development of and seek opportunities to support sites for community energy projects. This will remove barriers, improve certainty and therefore encourage both communities and other local stakeholders to engage with community projects.

3.3.2 Local Area Energy Planning

Local Area Energy Plans (LAEPs) have been identified as a promising statutory tool for integrating energy planning with broader local strategies. LAEPs are a strategic framework developed by local authorities to guide the transformation of their respective local energy systems toward achieving net zero emissions. The process of creating a LAEP involves several key stages, requiring a notable amount of capacity to see through and develop well. LAEPs involve significant preparation, stakeholder identification and engagement, a nuanced understanding and representation of local energy systems, modelling options for the future, and a particularly demanding process of scenario refinement, selection, drafting actions, priorities, and decision-making, before each plan is designed and implemented.

Conversely, the non-mandatory status of LAEPs in England has already led to significant variations. Such disparity has sparked discussions on whether LAEPs should be formalised and standardised across all regions. As of July 2023, approximately 66 local councils in the UK, equating to about 1 in 6, are working towards developing a LAEP – a four-fold increase from the previous year but nonetheless demonstrating a disparity that will see some localities thrive from the energy transition whilst others seriously lag behind[134]. If the *whole* energy system is to become greener, more secure, and not see energy consumers experience increased costs, LAEPs must become statutory, accompanied by necessary capacity uplift to bring all local authorities up-to-speed and in pursuit.

By formalising LAEPs within a statutory framework, local authorities would be obliged to adopt a more coordinated and effective approach to the energy transition. Embedding energy planning within existing statutory mechanisms will work to ensure energy strategies can be cohesively aligned with respective transport and industrial strategies, as well as Local Plans. This creates synergies that enhance the effectiveness of implementation and operation. This integrated method ensures that energy planning is not treated in isolation but is woven into the

134 Energy Systems Catapult (2023) – Local area energy planning: The time and place is now

broader socio-economic and infrastructural fabric, promoting a more sustainable and resilient transition.

The ongoing planning system reforms present a key opportunity to embed LAEPs as a statutory mechanism for aligning housing development with local energy decarbonisation objectives. As local authorities are expected to accelerate housing delivery, the need for coordinated energy planning becomes imperative to ensure new developments do not exacerbate existing energy infrastructure constraints, undermine net zero commitments, or see energy consumers face higher prices.

By formalising LAEPs, the public sector can create clear pathways for energy investment, streamline coordination between housing and infrastructure projects, and work to avoid the systemic risks of fragmented decision-making, which could otherwise lead to inefficiencies, increased costs, and public resistance. Moreover, as local authorities bear much of the implementation burden for housing and energy transition policies, a statutory basis for LAEPs would ensure that they have the tools necessary to coordinate wider Local Plans with national energy and climate targets while securing pointed investment in critical infrastructure and grid upgrades. Without such integration, there is a great deal of risk that the government's ambitious housing targets will outpace energy system readiness, creating long-term economic and environmental costs that not only undermine both local and national net zero goals but are likely to see everyday energy consumers experience increasingly costly bills and a less dependable energy system.

The formulation of realistic and operationally feasible goals is of paramount importance for place leaders seeking to achieve decarbonisation. Targets that exceed institutional capacities will not only engender systemic risks but also further embed public scepticism of the ability of governments to deliver on climate action, thereby eroding the foundational trust required for sustained civic engagement and policy legitimacy. A great deal of local authorities, combined authorities, and governmental entities have articulated ambitious net zero trajectories whilst bereft of the required mechanisms, fiscal resources, and devolved authority essential for the realisation of such goals. The disjunction between this aspirational rhetoric and pragmatic capacities is precipitating a significant misalignment between public expectations and policy deliverables. This incongruence will not only attenuate institutional credibility but also exacerbate the risk of widespread civic disengagement and withdrawal of political support for the broader decarbonisation agenda.

To mitigate such challenges, it is imperative that place leaders adopt a pragmatically grounded approach to target setting. This necessitates transparent communications delineating the scope of actions that can be realistically implemented within extant

institutional frameworks and resource constraints. By prioritising feasible interventions, authorities can bolster their institutional credibility while fostering a collaborative ethos within local communities, one that will give residents a sense of participation and ownership of local climate action. Furthermore, such a strategic recalibration would enable a more nuanced articulation of the ancillary socio-economic benefits of decarbonisation, including (but not limited to) economic revitalisation, employment generation, and public health enhancements. Public understanding and support for such initiatives will beget the ability of local authorities to deliver on such co-benefits, through local advocacy and strong electoral support.

Standardising and establishing a clear yet flexible framework for LAEPs will prove essential to ensure consistency and effectiveness across different regions. An initial, relatively uniform set of benchmarks and guidelines can help to reduce disparities between local authorities, ensuring that all communities can benefit from best practices in energy planning and stave off deepening inequalities on energy lines. Moreover, a standardised framework facilitates data sharing and resource allocation, thereby improving the overall efficiency, impact, and local embeddedness of local and community energy initiatives.

Beyond structural integration, the customisation of energy plans to meet the specific needs of communities is crucial. LAEPs have the potential to address the unique characteristics of individual neighbourhoods and communities, considering factors such as demographics, housing stock, local economies, and environmental conditions. Thus, flexibility and innovation are key to this process, allowing authorities and stakeholders to adapt solutions to hyperlocal, local, and regional challenges and opportunities.

To this end, the development of community-specific solutions is fundamental to the success and public support of local energy planning. Effective energy plans must therefore account for the diverse needs, circumstances, and general feeling of different communities, ensuring efficiency, equity, and political buy-in. This requires a nuanced understanding of local demographics, housing conditions, public support, and existing infrastructure to design responsive, participatory, and effective strategies. It is crucial that plans do not exacerbate existing social inequalities but instead contribute to a just and inclusive energy transition.

3.3.3 The role of the Neighbourhood Plan

At the most local level, the Neighbourhood Plan (NP) represents an opportunity to marry the need for new development to meet the needs of communities with the implementation of local planning policies such as climate change mitigation and adaptation. The NP requires a local referendum before submission to the planning

authority in order to gauge local support for its content, which includes community decisions on local development from housing to infrastructure. As such, the capacity of NPs to influence support for community energy projects is a question of compounding local engagement to a critical mass of public assent.

NP activity is highly correlated with rural areas and NPs are also much more likely to be taken up in the least deprived areas of England. An off-cited benefit of community-led energy projects is the reduction of energy bills and better energy security, which could support more deprived places provided that there are financial and social supports in place to ensure that NPs are part of an inclusive system that extends across the country no matter the level of deprivation.

NPs can be collated under the auspices of three kinds of organisation: a parish or town council, a neighbourhood forum, or another community organisation. Although neighbourhood forums tend to account for a much wider range of deprivation than town and parish areas, they have seen some decline in recent years[135], suggesting barriers to access and to the progression of neighbourhood forums. The 2024 English Devolution White Paper assures improved engagement between town and parish councils with local authorities to ensure community partnership[136], but it is paramount that engagement also improves with neighbourhood forums if communities across the country are to have a say and a stake in local energy projects through Neighbourhood Planning.

NPs have, however, been historically stymied despite many instances of success, by challenges of community capacity, a lack of expertise and skills, and the inefficiency of relying on public influence to engage development[137]. Due to the nature of community organisation, there is variation across the board in terms of capacity in communities. Regional hubs to lend expert advice, support from local authorities, and an examination of capacity funding for community groups would perhaps support a higher standard of governance and delivery for Neighbourhood Planning, particularly when community groups are to be involved in the complexities of energy infrastructure and supply.

NPs represent the opportunity for providing the certainty that community energy projects require for successful development, particularly if they include an outline of how the project can be scaled and what investment and resourcing might be required for deployment. There is a positive feedback loop; although an NP needs support,

135 Planning Resource (2022) – Neighbourhood Watch: London sees fall in number of neighbourhood plan forums
136 MHCLG (2024) – English Devolution White Paper
137 Localis (2023) – Brightness on the Edge of Town: How Community Land Trusts can deliver affordable housing

often financial or in the form of expert consultation, once this support is provided, the NP can engender better bottom-up support for local energy projects and the allocation of sites for renewable energy, alongside the stability that such projects need to commence – therefore improving local financial and energy resilience and flexibility. Integrating the neighbourhood level into LAEPs is a missing piece of the jigsaw of local energy provision, and the Local Power Plan must reflect the importance of this policy tool.

Summary: Considerations for the Local Power Plan

To enable the effective rollout of the Local Power Plan, government should:

- **Streamline the application process for grid connection** to help communities realise the benefits faster.
- **Invest in local government skills programmes** to allow councils to recruit, train and retain staff who can engage with the energy market.
- Build on successful examples of strategic energy partnerships to **produce a contracting framework** for local authorities looking to procure long-term public-private partnerships.
- Produce legislation to **formalise local area energy planning with the Local Plan** process, to ensure new development contributes to the energy transition whilst also gaining a clearer national picture of future grid demand.

Beyond the vital task of place leadership in energy planning, councils can help to facilitate the transition locally by:

- **Develop financial instruments** such as Community Municipal Investments and Green Bonds to help support local communities.
- **Embed Green Public Procurement** in their procurement of energy services and utilities.

As partners in the energy transition, the private sector should:

- **Practice meaningful community consultation** over the direction of projects and funding.
- **Prioritise local job creation** in delivering projects.
- **Work with a local supply chain** to ensure the retention of economic benefits.

CHAPTER FOUR

Recommendations

The establishment of GB Energy and the promise of a Local Power Plan represent huge potential to transform central-local relations in the energy transition. The following recommendations, drawn from the research carried out from this project, present some considerations for the key actors involved in the production and implementation of the Local Power Plan.

Enabling the Local Power Plan

Enabling the local power plan will require concerted action across departments, integrating the ambitions of GB Energy with the planning system changes from MHCLG, the overall net zero 'mission control' of DESNZ and the strategic spatial energy plan of the National Energy System Operator. Action must also accord with English devolution policy and facilitate the upskilling of actors at local authority and community level. To create the conditions for success at local level, central government should:

- Produce legislation to **formalise local area energy planning**, to ensure new development contributes to the energy transition whilst also gaining a clearer national picture of future grid demand.
    - This could involve integrating LAEPs with the Local Plan process, or ensuring that completed and approved Local Plans have a statutory LAEP attachment.
    - These plans should feed into future iterations of the National Energy System Operator's strategic spatial energy plan.
    - Frameworks for producing LAEPs should not be overly restrictive, allowing for local variation.
- **Consolidate funding streams** for clean energy projects in local areas.
- **Build community capacity** to engage with energy projects.
    - This would involve working with the community and voluntary sector to build government-funded projects for training and development of community groups looking to get involved with decentralised energy.
- **Establish regional energy data centres** to help local authorities make evidence-led plans.
    - This initiative could connect with the plans for subregional data analytics centres headed up by strategic authorities, as announced in the English Devolution White Paper.
- **Streamline the application process for grid connection** to help communities realise the benefits faster.
- **Invest in local government skills programmes** to allow councils to recruit, train and retain staff who can engage with the energy market.

Delivering the Local Power Plan

The delivery of a successful Local Power Plan will require concerted action across sectors and levels of government.

- Central government should:
  - **Provide local authorities with support in procurement and contracting** to access complex markets.
    - This could involve utilising the Local Net Zero Hub network to extend government support for procurement officers and policy teams in developing tenders, specifications and contracts.
  - **Provide capacity support for planning applications**, to accelerate the planning process for new local infrastructure.
    - The technical detail of some energy infrastructure planning applications prevents timely resolution. A central government funded support hub could act as a mechanism to address this problem.
  - Build on successful examples of strategic energy partnerships to **produce a contracting framework** for local authorities looking to procure long-term public-private partnerships.
- Local government should:
  - **Provide robust data and measurement mechanisms** for monitoring and evaluation.
  - **Target quantifiable benefits** to local communities.
  - **Develop financial instruments** such as Community Municipal Investments and Green Bonds to help support local communities.
  - **Embed Green Public Procurement** in their procurement of energy services and utilities.
- Private sector partners should:
  - **Practice meaningful community consultation** over the direction of projects and funding.
  - **Prioritise local job creation** in delivering projects.
  - **Work with a local supply chain** to ensure the retention of economic benefits.

Making the Local Power Plan work

To ensure that the Local Power Plan is politically viable at place level, government should consider **moving the capital burden of renewable infrastructure** away from household bill levies. The government should also consider the **reintroduction of feed-in tariffs** to help enable participation.

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