

Local Net Zero Delivery Progress Report

Energy

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About UK100

UK100 is a network of local authorities that have pledged to shift their communities to Net Zero ahead of the government's legal target. They do this to demonstrate their ambition, make the case for rapid change, and enable a fast and fair transition.

The network provides local leaders opportunities to learn from each other, agree priorities for legislative and regulatory change, engage with national decision-makers and businesses, and develop a better understanding of how to build consent and support for rapid climate action in their communities.



Executive Summary



The power and potential of local authorities (LAs) to design and deliver real progress towards Net Zero against a global backdrop of unpredictable and far-reaching challenges has never been clearer.

This report presents an analysis of the progress made towards delivering Net Zero energy at a local level in the UK in the past year, and our recommendations for actions needed to enable the pace and scale of delivery required for success.

In May 2021, UK100 produced Power Shift¹, an in-depth assessment of the powers both held by and needed for LAs to deliver Net Zero. The report outlined the challenges and barriers to progress. Alongside insights from the Climate Change Committee (CCC)² and the National Audit Office (NAO),³ our report emphasised the crucial role LAs have in meeting the Government’s climate targets.

Similarly, our Rural Net Zero⁴ report delivered key insights on the challenges in the UK rural context. All of this research and insight will feed into this report.

Global challenges with local consequences

Following the release of the UK Government’s Net Zero Strategy in October 2021, 2022 was set to be a year of delivery. However, progress has been slow. Long-standing challenges to the sector such as skills shortages⁵ and supply chain issues⁶ have been coupled by an emerging cost of living crisis and a heightened awareness of the need for fuel security.

1 https://www.uk100.org/sites/default/files/publications/Power_Shift.pdf
2 <https://www.theccc.org.uk/publication/local-authorities-and-the-sixth-carbon-budget/>
3 <https://www.nao.org.uk/report/local-government-and-net-zero-in-england/>
4 https://www.uk100.org/sites/default/files/publications/Rural%20Net%20Zero_May%202021.pdf
5 <https://www.aldersgategroup.org.uk/content/uploads/2022/03/Upskilling-the-UK-workforce-for-the-21st-century.pdf>
6 https://www.theade.co.uk/assets/docs/about/Getting_%28retro%29fit_for_net_zero-min.pdf

These issues serve to highlight that action is more urgent than ever. Building on the ‘Ten point plan for a green industrial revolution’⁷ and the Net Zero Strategy, the Government’s British Energy Security Strategy (ESS) released in April 2022 was intended to address the future of the UK’s energy supply in the context of “rising global energy prices, provoked by surging demand after the pandemic as well as Russia’s invasion of Ukraine [...] weaning Britain off expensive fossil fuels, which are subject to volatile gas prices set by international markets we are unable to control, and boosting our diverse sources of homegrown energy for greater energy security in the long-term.”⁸ However, the ESS did not capitalise on the massive potential that exists in improving energy efficiency and investing in onshore renewable power and the Energy Bill⁹ which has just begun its passage through Parliament does not address these shortcomings.

Challenges like these aren’t going away: higher prices and energy demand challenges can and must be tackled in parallel with reaching Net Zero, and local delivery at pace and scale is key.

Local authorities can lead the way

Many ambitious LAs have set Net Zero targets that are ahead of the UK Government’s 2050 deadline. The 102 (correct at time of writing) LAs that have signed UK100’s members pledge have committed “to lead the UK’s response to climate change, acting sooner than the government’s goal by making substantial progress within the next decade to deliver Net Zero.”

Through innovative partnerships and by identifying and scaling successful pilot projects, they are focusing on sectors that urgently need decarbonising - including energy. Giving more LAs the power to set similar trajectories and build momentum for change will be key to delivering a Net Zero future.

The issues raised in this report both influence and are influenced by cross-cutting issues. This report is one of eight sector-based reports produced to assess progress on Local Net Zero Delivery. There are lots of commonalities and synergies between them which are clearly signposted throughout each of the reports.¹⁰

7 <https://www.gov.uk/government/publications/the-ten-point-plan-for-a-green-industrial-revolution>
8 <https://www.gov.uk/government/publications/british-energy-security-strategy>
9 <https://bills.parliament.uk/bills/3311>
10 <https://www.uk100.org/publications/local-net-zero-progress-reports>



What's in this report?

The research, summarised in this report, aims to:

- 1** Assess the progress on delivery of Government commitments
- 2** Take stock of UK100's research recommendations and identify areas where key developments have taken place and highlight where barriers remain
- 3** Share success stories from LAs.



Background

We urgently need a rapid transformation of our energy system if we are to reach our Net Zero goals. Regional and other authorities are pioneering new approaches to and there is significant opportunity for smart decentralised energy systems at a place-based level to integrate supply and demand more effectively.

UK100 has made clear recommendations for faster and more scalable progress towards a Net Zero future. In our 2021 Power Shift¹¹ report, we outlined how LAs must play a critical role in the delivering the Net Zero energy system.

In July 2021, UK100 together with the Mayor of the West Midlands, Andy Street, convened an international climate change summit. The summit launched a communiqué¹² signed by a group of 32 cross-party Mayors and local leaders from across the UK. It called for a 'Power Shift' from Whitehall so that local and regional authorities can deliver Net Zero with six areas identified as priorities for urgent action. To decarbonise energy, Mayors and local leaders agreed:

“ We need to establish strategic energy bodies, or similar mechanisms, with the responsibilities and resources to address market failure in energy systems, and with the mandate to satisfy Net Zero targets. These mechanisms should ensure a duty of collaboration between public bodies that have place-based responsibilities around waste, transport and spatial planning, and Distribution Network Operators (DNOs). The result would be to create a consistent approach to modelling and data usage. These mechanisms should be resourced and responsible for local area energy planning (LAEP), which delivers whole-system infrastructure and informs Net Zero-led capital investment at the most effective geographic level.

UK100 also made a series of detailed recommendations informed by our other research activities relating to energy decarbonisation. A summary overview¹³ of the main points have been grouped within the following three key categories:

¹¹ https://www.uk100.org/sites/default/files/publications/Power_Shift.pdf

¹² <https://www.uk100.org/publications/net-zero-local-leadership-communique-delivering-net-zero-uk>

¹³ [More detailed information on the recommendations: https://www.uk100.org/sites/default/files/publications/Power_Shift.pdf](https://www.uk100.org/sites/default/files/publications/Power_Shift.pdf)



Powers

- Provide powers to LAs to develop a balanced local Net Zero energy system, which combines large scale power generation with local decentralised energy systems
- Power to override the constraints on onshore wind and withdraw 2015 Written Ministerial Statement¹⁴
- Power to refuse consent for fossil fuel extraction or development of carbon-based energy infrastructure if it is not aligned with the national carbon target.

Energy and heat are interconnecting issues, and the following Powers recommendations are echoed in our Heat and Buildings progress report.¹⁵

- Powers to identify the most appropriate areas for heat networks and to coordinate the delivery of Net Zero heat zones
- Planning powers or a regulation code to insist on certain types of technologies (and ban others) in new and existing buildings in Net Zero heat zones
- Powers to require buildings to connect to district heating schemes in identified district heating zones and to require existing developments to connect.



Framework

- A national framework for LAEP that supports local and regional authorities to develop a Net Zero energy system that combines large scale power generation with local decentralised energy systems. This must include a clear remit to base planning decisions on the legally binding Climate Change Act
- Clearer and more flexible national policies and frameworks to allow more local energy generation and better systems management. Transform the current regulatory framework to facilitate and incentivise energy storage, smart local grids and decarbonised heat

¹⁴ <https://www.parliament.uk/globalassets/documents/commons-vote-office/June-2015/18-June/1-DCLG-Planning.pdf>

¹⁵ <https://www.uk100.org/publications/local-net-zero-progress-reports/heat-buildings>



Partnership

- DNOs should be obliged and incentivised to work with LAs
- The National Planning Policy Framework (NPPF) must ensure every area is covered by a Net Zero LAEP, including the removal of the viability constraint, alongside guidance relevant to different area types
- LAs could and should contribute to any framework of local planning for energy to build in their insights, knowledge of planning and place-based assets (often with a longer life than energy assets, and with scope to introduce non-traditional energy assets); and to work through how any such plan should play into planning processes, or any cycle of revision.
- Improve the relationship between DNOs and LAs, grounding it across both sectors. These relationships need the right balance of membership, representation and responsibility. The planned introduction of the Distribution System Operators (DSO) offers an opportunity to explore these relationships
- Increase data sharing between LAs and key stakeholders (especially DNOs).



Energy system:

- Grid capacity improvements should prioritise potential distributed generation capacity areas, particularly in highly-constrained rural areas, alongside the improvements required to meet higher demands
- Invest in data infrastructure to develop smart local energy systems, including a full roll out of smart metering, particularly within neighbourhoods. This will require data on existing buildings, future land-use planning, and current and future transport usage and planning.



Finance

- Reform the financial model to better incentivise investment by DNOs into local energy infrastructure. Our grid has capacity to develop local energy systems, and DNOs have the financial capacity to overcome local constraints where they occur
- Fund infrastructure in anticipation of need, despite a delay in revenue streams. For example, installing heating pipes or grid reinforcements in heat zones while street work excavation is underway
- Develop new models of financing to monetise co-benefits, such as poverty reduction, improvements in health and wellbeing, and local job creation. Cleaning up energy is a public good and therefore a justifiable investment
- Provide confidence in long term funding (rather than short term grants) to develop smart energy communities
- Funding for smart energy solutions needs to recognise the varied challenges faced by different communities, including rural versus urban. LAs will need to aggregate projects to achieve the scale necessary to leverage additional private investment
- As we describe in our Finance progress report,¹⁶ the UK Infrastructure Bank (UKIB) should help LAs embed a consistent and robust Net Zero planning process into how they identify projects. Transforming the energy system requires an expert understanding of the interaction of an area's electricity, heat and gas networks, and improvements to the building fabric.



Training

- Investment in staff resources and training in energy systems and markets to build LA capacity - for everything from energy system modelling, project management, to public engagement.

¹⁶ <https://www.uk100.org/publications/local-net-zero-progress-reports/finance>

CCC 2022 Progress Report to Parliament¹⁷

The CCC's 2022 progress report states that deployment of renewable electricity capacity - especially offshore wind - has been strong. But whilst the CCC also welcomes the UK Government's response to heightened energy security concerns through doubling down on Net Zero, the ESS is almost entirely supply-focused, with many commitments delivering in the longer term. The report recommends urgent action to reduce demand for fossil fuels to reduce emissions and limit energy bills. Indeed energy efficiency in non-fuel-poor homes and for owner-occupiers is cited as a particular policy gap.

The CCC would support moving the policy costs due to historical subsidies off electricity bills and onto general public spending, which would improve energy affordability and the incentive to switch heating from fossil fuels to electricity. They cite further opportunities including 'a sustained push' for both energy efficiency improvements and electrification, especially in the buildings sector, as well as deployment of onshore wind and solar, which can occur significantly quicker than offshore wind deployment. They highlight that experience from the Green Homes Grant suggests that LAs could play a significant role in the short term.

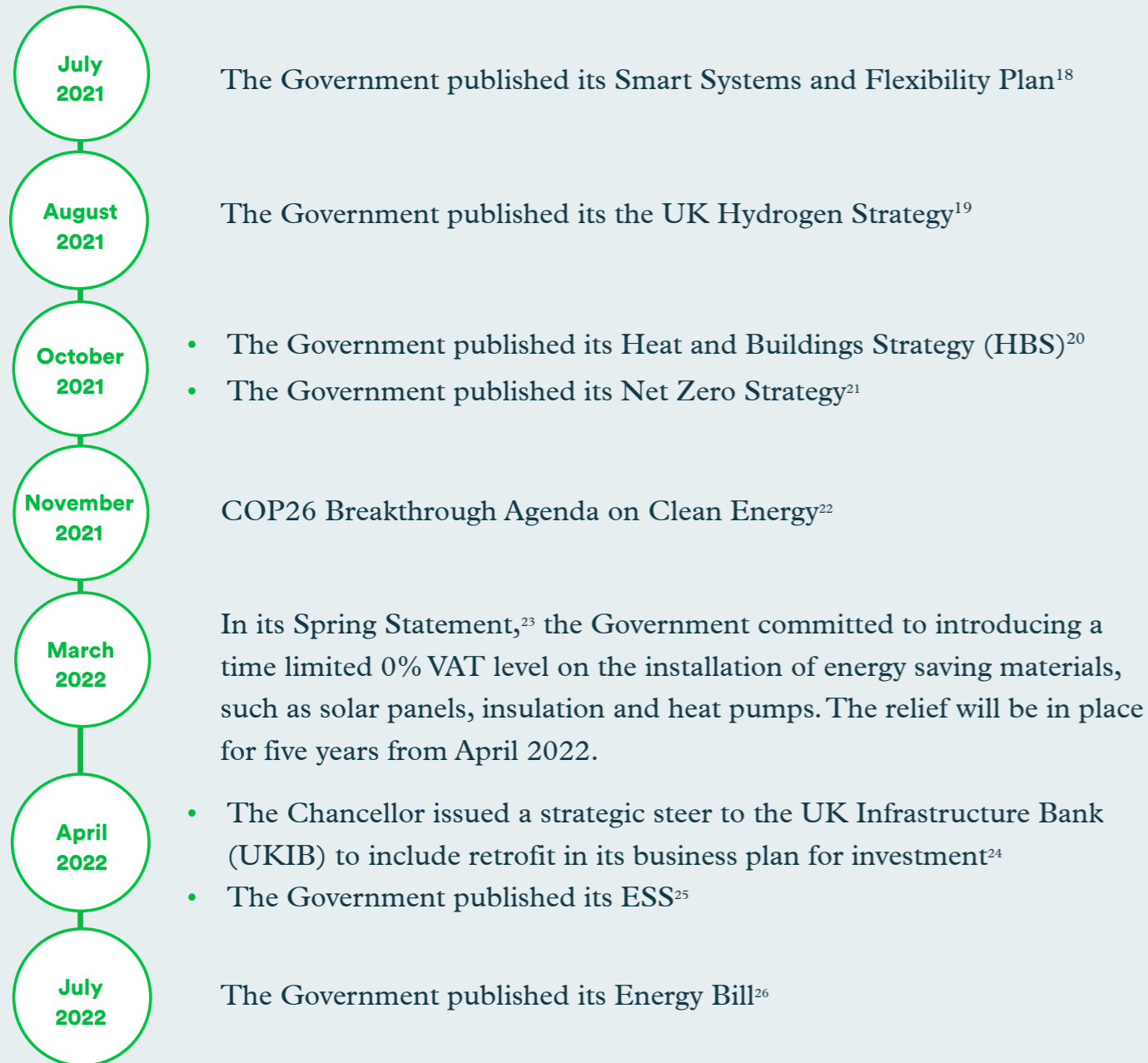
CCC welcomes the commitment for a fully low carbon electricity supply by 2035, but the Department for Business, Energy and Industrial Strategy (BEIS) must now publish a comprehensive, long term strategy to achieve this. A strategy for market design and a framework for timely delivery of network requirements for Net Zero are also needed.

¹⁷ <https://www.theccc.org.uk/wp-content/uploads/2022/06/Progress-in-reducing-emissions-2022-Report-to-Parliament.pdf>

Progress

This section of the report offers us an opportunity to take stock of the past 12 months and highlight the main areas where developments have taken place. A more thorough analysis of what these developments mean is provided later in the report.

What's happened?



18 <https://www.gov.uk/government/publications/transitioning-to-a-net-zero-energy-system-smart-systems-and-flexibility-plan-2021>

19 <https://www.gov.uk/government/publications/uk-hydrogen-strategy>

20 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1044598/6.7408_BEIS_Clean_Heat_Heat_Buildings_Strategy_Stage_2_v5_WEB.pdf

21 <https://www.gov.uk/government/publications/net-zero-strategy>

22 <https://www.gov.uk/government/publications/british-energy-security-strategy>

23 <https://www.gov.uk/government/publications/spring-statement-2022-documents>

24 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1061776/Strategic_steer_to_the_UK_Infrastructure_Bank_180322.pdf

25 <https://www.gov.uk/government/publications/british-energy-security-strategy>

26 <https://www.gov.uk/government/collections/energy-security-bill>

Although some of our recommendations on Net Zero energy have been acknowledged in the Government's energy-related strategies, we can see some concerning omissions on local powers and energy efficiency - particularly in the recent ESS.

COP26 produced a strong commitment on affordable and accessible clean energy. With the launch of the Breakthrough Agenda (a coalition to accelerate key climate solutions), we saw two of the four 'Glasgow Breakthroughs' commit to rapid progress on energy. The first stated "Clean power is the most affordable and reliable option for all countries to meet their power needs efficiently by 2030". And the second that, "Affordable renewable and low carbon hydrogen is globally available by 2030."²⁷

COP26 also saw clear alignment against coal power generation, with the Glasgow Climate Pact²⁸ promising to "end new international coal power financing by the end of 2021". In the Global Coal to Clean Power Transition Statement, this position was complimented by a recognition of the "imperative to urgently scale-up the deployment of clean power to accelerate the energy transition."²⁹

The UK Government's energy-related strategies vary in approach and the extent to which they recognise the importance of local delivery. In order of publication, these strategies include: the Smart Systems and Flexibility Plan (July 2021), the UK Hydrogen Strategy (August 2021), the Net Zero Strategy (October 2021) and the ESS (April 2022).

The Smart Systems and Flexibility Plan contained clear language on the importance of local powers, setting out a vision whereby "localised low carbon solutions are optimised across power, heat and transport systems bringing positive outcomes for consumers, communities and the country as a whole."³⁰ The plan recognised local actors as strong drivers of change, particularly in combining the cost-effective delivery of smart local energy systems with work on housing, transport, waste and planning. However, despite this clear language, there was a lack of detail in the plan, as well as limited access to funding.

The UK Hydrogen Strategy sets out the Government's approach to developing a low carbon hydrogen sector, with the goal to deliver 5GW of low carbon hydrogen

27 <https://www.gov.uk/government/publications/cop26-world-leaders-summit-statement-on-the-breakthrough-agenda-2-november-2021/cop26-world-leaders-summit-statement-on-the-breakthrough-agenda>

28 <https://unfccc.int/process-and-meetings/the-paris-agreement/the-glasgow-climate-pact-key-outcomes-from-cop26>

29 <https://ukcop26.org/global-coal-to-clean-power-transition-statement/>

30 <https://www.gov.uk/government/publications/transitioning-to-a-net-zero-energy-system-smart-systems-and-flexibility-plan-2021>

production capacity by 2030. Perhaps the main thing to note about this strategy is that the 5GW goal has since been doubled (in the recently published ESS), without any real clarity about how this will be achieved.

Net Zero Strategy included some language on the importance of meeting local energy needs through local decision-making. It also described how local actors can help with “coordinated non-spatial planning and engagement with markets, and supporting cleaner, cheaper and more efficient energy whilst providing a significant contribution towards local economic strategy”.

However, while the strategy recognised the need to improve engagement and information sharing across organisations, particularly to understand the challenges and opportunities of LAEP, it did not explicitly include LAs in the conversation.

Finally, the strategy promised the publication of an Electricity Network Strategy outlining how the network will adapt to respond to consumer and energy system needs. However, no further details on this were included.

The ESS was published in response to an energy price crisis and the Russian invasion of Ukraine. It was also released as the Intergovernmental Panel on Climate Change (IPCC) issued its starkest warning yet.³¹ The strategy includes policy to shorten consent times for offshore wind planning from four years to one. It also introduces Great British Nuclear, a new delivery body for the proposed eight new large nuclear reactors to be brought to final investment decision by 2030. Meanwhile, the North Sea Transition Deal sets out plans for necessary investment and infrastructure to aid ‘decarbonised’ oil and gas extraction.

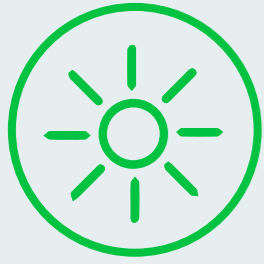
Targets in this strategy include: 50GW offshore wind, with up to 5GW floating offshore wind, by 2030; 24GW of nuclear by 2050; 10GW of hydrogen by 2035; and 70GW of solar PV capacity by 2035.³²

However, the strategy mentions LAs just twice - a glaring omission, given the clear importance of local decision-makers to a timely response to the energy crisis. Furthermore, energy efficiency - the best proven solution to decarbonising homes quickly and affordably - got neither the recognition, funding or planning it requires to deliver change.

³¹ <https://www.ipcc.ch/report/sixth-assessment-report-working-group-3/>

³² <https://www.gov.uk/government/publications/british-energy-security-strategy/british-energy-security-strategy>





Highlights:

What's going well

- **Phasing out of coal at COP26:** Two Breakthrough Agendas, the Global Coal to Clean Power Transition Statement and the Glasgow Climate Pact all committed to a coal-free future
- **The Office of Gas and Electricity Markets (Ofgem) acknowledges local:** The CEO of Ofgem recently stated a desire to “engage much more fully at a local level”³³
- **Announcement of Future System Operator (FSO) / Independent System Operator (ISOP):**³⁴ Creation of an independent, expert impartial body that facilitates Net Zero while maintaining a resilient and affordable energy system³⁵

³³ <https://www.youtube.com/watch?v=x6LLJuGlfik&t=1444s>

³⁴ [In the Energy Bill, introduced to Parliament on 6th July 2022, the FSO was referred to as the Independent System Operator or ISOP](#)

³⁵ <https://bills.parliament.uk/bills/3311>



Opportunities:

What we'd like to see more of/what has potential

- **Electricity Network Strategy:** If delivered as promised in the Net Zero Strategy with the involvement of LAs, this strategy has a lot of potential, but more details on the specifics and action is required to progress this important area.



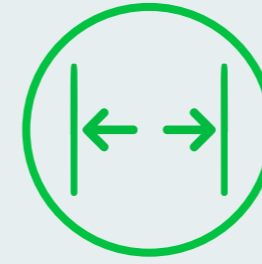


Challenges:

What could be going better

- **ESS approach:** The strategy's scope and direction does not adequately reflect the enormous potential of local delivery of an energy system that could be resilient, homegrown and future proof.³⁶

³⁶ <https://committees.parliament.uk/writtenevidence/108438/pdf/>



Gaps:

What's missing?

- **Energy Bill:** Following on from the ESS, the Energy Bill was introduced to Parliament on 6th July 2022.³⁷ It makes no reference to the following:
 - onshore or offshore wind
 - putting local communities in control of onshore wind
 - solar energy
 - LAEP
 - reduction in energy demand

These are significant omissions which need urgent attention as the Bill progresses through Parliament. The only references to LAs are in the heat network zone section (this is covered in more detail in the Heat and Buildings progress report).³⁸

- **Energy efficiency:** We must prioritise reducing energy demand and upgrading Britain's draughty homes to reduce energy consumption
- **LAEP:** Despite increased recognition of the importance of LAEP, we have yet to see any firm commitments to formalising this approach.

³⁷ <https://bills.parliament.uk/bills/3311>

³⁸ <https://www.uk100.org/publications/local-net-zero-progress-reports/heat-buildings>

Devolved administrations



In addition to as looking at UK-wide progress, we want to reflect on progress from the devolved administrations.

In Wales, as well as committing to a place-based approach to Net Zero delivery, the Welsh Government will install an additional 1GW of renewable energy capacity by 2025 and remove all current unabated gas generation from the system by 2035. Significantly, LAs have been asked to work with the Welsh Government to develop local and regional energy plans, which will provide strong evidence to inform these place-based plans.³⁹

In Northern Ireland, the Department for the Economy published the Northern Ireland Energy Strategy - the Path to Net Zero Energy in December 2021. This strategy includes a goal to cut energy-related emissions by 56% by 2030, plus a pathway to deliver the 2050 vision of Net Zero and affordable energy. The action plan includes promising new initiatives, including a £10 million green innovation fund, a hydrogen centre of excellence and one-stop shop for energy advice.⁴⁰

In Scotland, by 2030, 50% or more of Scotland's overall energy consumption will come from renewable sources, and by 2045 the energy system will be decarbonised almost completely. The Local Energy Policy Statement, released in January 2021, makes it clear that local energy will develop alongside (and within) a vibrant national energy network. Local energy projects should reflect local characteristics and focus on collaborative strategic approaches and partnership working. Local and distributed energy, and demand-providing-services, will be deployed to help ensure that the national network can operate securely and safely in an increasingly decarbonised system.⁴¹

³⁹ <https://gov.wales/sites/default/files/publications/2021-10/net-zero-wales-summary-document.pdf>

⁴⁰ <https://www.economy-ni.gov.uk/publications/energy-strategy-path-net-zero-energy>

⁴¹ <https://www.gov.scot/publications/local-energy-policy-statement/>



Overarching Themes

We have identified three overarching themes which apply across all the progress reports in this series. By identifying blockers and sharing successes in these key areas, we can achieve the step-change we need.

Partnerships

Productive collaboration and coordination between local, regional and national energy decision-makers is key to delivering Net Zero energy.

- The announcement of the creation of a FSO/ISOP is a welcome development. We urge the new entity to focus on understanding and delivering local energy plans and projects, at the same time as transforming the national networks into a more flexible and smarter system.
- The ESS promised to “prioritise putting local communities in control”. This is good news, but the sentiment was not carried through to the Energy Bill. With no clarity on what this means or how it will be operationalised, this is a significant issue that needs rectifying urgently.

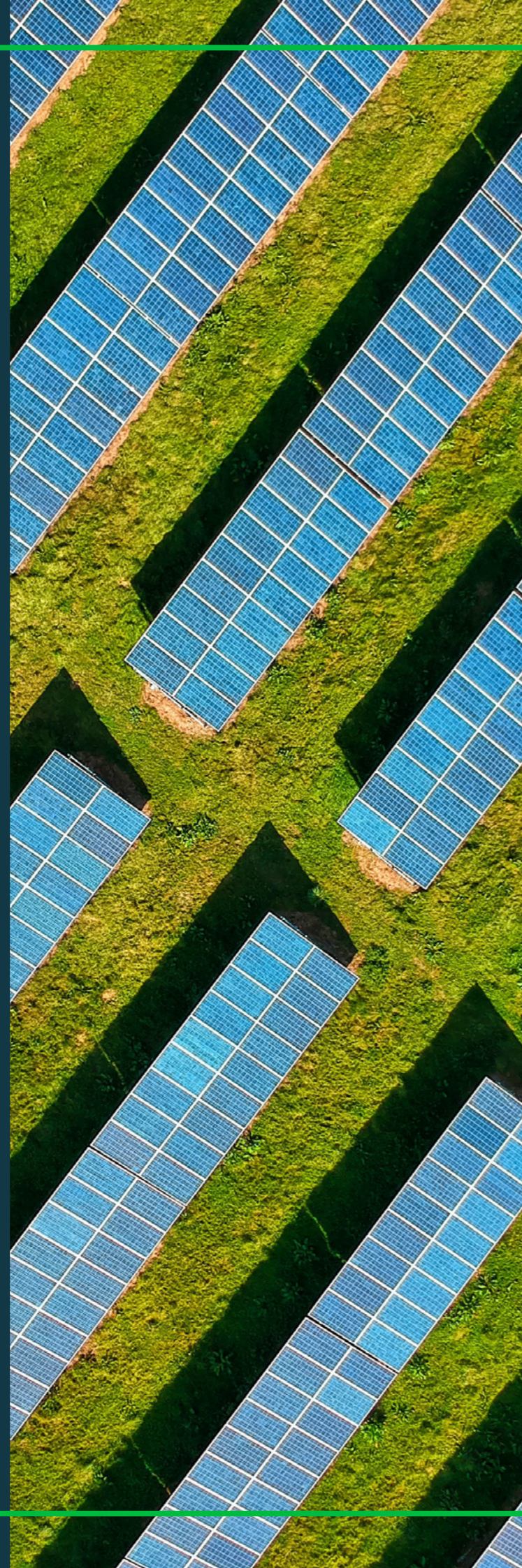


Member Insight:

Plymouth Chelson Meadow Solar Farm

Plymouth Energy Community (PEC) are working with Plymouth City Council to develop a new community-owned solar farm at Chelson Meadow. With support from a government grant, PEC has completed feasibility studies that demonstrate this scheme will generate a significant amount of the City's renewable power, enough to power 3,860 homes.

Information events are being held to allow the community to learn more about the scheme. A planning application was submitted in February 2022.



Plymouth's new mobility hubs

Capital grant funding of £9,793,278 was awarded by the Transforming Cities Fund to develop 50 multimodal mobility hubs across the city. This included an additional 300 public electric vehicle (EV) charge points, 400 electric bikes and the establishment of an electric car club.

The team in Plymouth produced concept designs for the Mobility Hubs and conducted an initial public consultation. They have now appointed an EV chargepoint operator, an e-bike operator and a car club operator, and started detailed design work on the Mobility Hubs. The E bike networks and EV charge points should be operational by March 2023.





Finance

Financing the transition to a clean and affordable energy system in the UK requires bold, smart, far-sighted planning.

The UK Infrastructure Bank (UKIB) through its Net Zero mandate can support projects which deliver Net Zero across sectors, with energy at their heart. The pilot projects that UKIB will fund initially should support new innovations that address the current policy gaps - in energy efficiency and the deployment of local renewables. This issue is covered more fully in our Finance progress report.⁴²

⁴² <https://www.uk100.org/publications/local-net-zero-progress-reports/finance>



Member Insight: Greater Manchester Combined Authority (GMCA)

GMCA invested £78 million in retrofit and low carbon energy generation for over 150 public buildings last year, including Manchester University NHS Foundation Trust, Greater Manchester Fire and Rescue Service, Transport for Greater Manchester, Greater Manchester Police, the Royal Northern College of Music and the National Cycling Centre. A further £20 million will be delivered next year.



Frameworks and governance

We need forward-focused frameworks that empower local and regional authorities and facilitate seamless collaboration across area and stakeholder groups.

LAEP will have to reach across administrative borders to be practical. A strong framework will guide interactions between LA and DNO boundaries, ensuring everything is linked and designed to work together. See below for further details.



Other developments:



Ofgem

Ofgem has made efforts to encourage more engagement at a local level and UK100 and our members have been actively engaged in these conversations. Ofgem's recent Call for Evidence on the Future of Local Energy Institutions and Governance signals a clear recognition of the importance of local input and decision-making in the shift to Net Zero energy. The purpose of this exercise was to better understand the effectiveness of arrangements in place to govern the local energy system and the changes that are needed to facilitate a cost-effective Net Zero transition.⁴³ In response to this call for evidence, UK100 stressed that 'proactive partnering' between DNOs and LAs should be business as usual (BAU) and we welcomed Ofgem's acknowledgement of this point in its methodology document for the RIIO-ED2 process in July 2022.⁴⁴

Encouragingly, the draft determination for the RIIO-ED2 process also states that achieving Net Zero at lowest cost requires - amongst other elements - maximising the full potential of demand-side response, which can be achieved if we have an energy system that is planned holistically, both at the national and local level.⁴⁵

Furthermore, with Ofgem being appointed as the heat network regulator for Great Britain, we are hopeful that Net Zero delivery can be more cohesive as a result, whilst ensuring consumers receive a fair price and a reliable heat supply at the same time. Our Heat and Buildings progress report has more details on this.⁴⁶

⁴³ <https://www.ofgem.gov.uk/sites/default/files/2022-04/Call%20for%20Input%20Future%20of%20local%20energy%20institutions%20and%20governance%20.pdf>

⁴⁴ <https://www.ofgem.gov.uk/sites/default/files/2022-06/RIIO-ED2%20Draft%20Determinations%20Core%20Methodology.pdf>

⁴⁵ The RIIO-ED2 is the price control exercise that sets the outputs that the 14 electricity DNOs need to deliver for their consumers and the associated revenues they are allowed to collect for the five-year period from 1 April 2023 to 31 March 2028 <https://www.ofgem.gov.uk/energy-policy-and-regulation/policy-and-regulatory-programmes/network-price-controls-2021-2028-riio-2/network-price-controls-2021-2028-riio-2-electricity-distribution-price-control-2023-2028-riio-ed2>

⁴⁶ <https://www.uk100.org/publications/local-net-zero-progress-reports/heat-buildings>

Net Zero Go

We are also pleased to see the launch of Net Zero Go,⁴⁷ which UK100 helped to develop. This online tool is designed to help LAs plan and deliver Net Zero energy projects, by helping them "tackle many of the common barriers to action, such as time and resource, financing and procurement, and local energy knowhow."

Energy Systems Catapult

Similarly, the Energy Systems Catapult (ESC), a body that provides technical, commercial and policy expertise to drive innovation across the whole energy system, has been working to develop guidance for LAs who are pursuing LAEP - in the absence of national guidelines. The guidance document which is funded by Innovate UK as part of the Prospering from the Energy Revolution (Pfer) programme, has been designed to enable LAEPs to be delivered to a consistent standard across the UK, allowing LAEPs from neighbouring areas to be compared, and for multiple plans to be aggregated across a region.⁴⁸

Net Zero Hubs

Finally, the evolution of local energy hubs to Net Zero Hubs is a positive broadening of scope that signals an awareness of the need for cross-cutting Net Zero action. There is more on this in our Local Powers progress report.⁴⁹

⁴⁷ <https://www.netzerogo.org.uk/s/>

⁴⁸ <https://es.catapult.org.uk/news/local-area-energy-planning-guidance-to-help-local-leaders-plan-for-net-zero/>

⁴⁹ <https://www.uk100.org/publications/local-net-zero-progress-reports/local-powers>

Analysis



UK100 asked the UK Government to prioritise local delivery and energy efficiency in reaching its Net Zero goals. There has not been sufficient progress in these areas.

Reliable renewable energy comes through decentralisation

The direction of travel to a decarbonised energy system is inherently decentralised. Unlike the limited and location-specific supply of fossil fuels, renewable energy has an inherent flexibility, broad geographical spread, and devices can be installed on almost every place and physical surface, be that a house or office for solar PV, or a piece of land for a wind or solar farm. It is therefore essential that energy systems are planned in a place-based way.

What's more, given that LAs understand the local context of their built environment and have established relationships with stakeholders - including utilities, highways, public sector partners, social housing landlords, businesses, industry and developers - they are in a uniquely strong position to undertake LAEP.

We need more collaboration and better coordination

LAs also understand the needs of their areas and communities. They must be recognised as key stakeholders in the development of grid infrastructure plans, both by the network operators and Ofgem.

We advocate that electricity system operators and DNOs should proactively coordinate with LAs and other system actors to plan, coordinate and enable the decarbonisation of energy. And that new policies and frameworks should enable LAs and DNOs to work together effectively.

The way that electricity is currently managed and delivered, together with inconsistent policy and regulation, is hampering local efforts to deliver ambitious action on Net Zero. However, we are encouraged by Ofgem's engagement with UK100, and its apparent resolution to promote closer working between the DNOs and LAs.

The untapped potential of LAEP

UK100 has focused work on the need for a national framework for LAEP for good reason. By giving a greater role, more powers and competencies to local and regional authorities, we will collectively develop a balanced Net Zero energy system that combines a mix of large scale power generation with local decentralised energy systems, as part of a wider priority focus of reaching Net Zero - this is being increasingly acknowledged but not being translated into cohesive government strategy.

The best savings come from energy we don't use

There is currently very little from the UK Government on either recognising the importance of energy efficiency to a Net Zero future, or acting to implement energy efficiency solutions. The CCC has been clear that this represents a major policy gap and a significant risk to meeting the Government's Net Zero target. This is particularly evident when it comes to insulating our homes, an issue that is covered in much more detail in our Heat and Buildings progress report.⁵⁰

We asked for place-based plans

Despite the growing energy crisis and the clear need for place-based Net Zero energy strategies, the UK Government is setting a tech-based, market-led trajectory and investing in measures that are incapable of delivering in the short term. There is a significant opportunity to reap the benefits of energy efficiency and place-based approaches that isn't being grasped in the Government's current strategy and the Energy Bill.

We asked for widespread recognition of the role of local

Ofgem's call for evidence on local governance and the announcement of the FSO/ISOP are also positive developments, and UK100 will continue to engage in active dialogue about the role and potential of this entity to embed local delivery into its work on Net Zero energy system transformation.

⁵⁰ <https://www.uk100.org/publications/local-net-zero-progress-reports/heat-buildings>



Recommendations

In conclusion, our key recommendations are as follows:

- Prioritise energy efficiency - make sure this significant policy gap is closed as the Energy Bill makes its way through Parliament
- Push forward on LAEP - we still need a framework to ensure seamless development and delivery of local planning, plus a clearer acknowledgement from the government that LAs are key to delivering Net Zero energy
- Maximise potential of FSO/ISOP to embed local delivery in the future Net Zero energy system.

Glossary of terms



BAU	Business as usual
BEIS	Department for Business, Energy and Industrial Strategy
CCC	Climate Change Committee
DSO	Distribution System Operators
DNO	Distribution Network Operator
ESC	Energy Systems Catapult
ESS	Energy Security Strategy
EV	electric vehicle
FSO	Future Systems Operator
GMCA	Greater Manchester Combined Authority
GW	gigawatt
HBS	Heat and Buildings Strategy
IPCC	Intergovernmental Panel on Climate Change
ISOP	Independent System Operator
LA	Local authority
LAEP	Local area energy planning
Ofgem	Office of Gas and Electricity Markets
MW	megawatt
NAO	National Audit Office
NPPF	National Planning Policy Framework
NZS	Net Zero Strategy
PEC	Plymouth Energy Community
PfER	Prospering from the Energy Revolution
PV	photovoltaics
RIIO-ED2	RIIO-ED2 is the price control exercise that sets the outputs that the 14 electricity DNOs need to deliver for their consumers and the associated revenues they are allowed to collect for the five-year period from 1 April 2023 to 31 March 2028.
UKIB	UK Infrastructure Bank
VAT	Value Added Tax



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