

Local Net Zero Delivery Progress Report

Heat and Buildings

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July 2022



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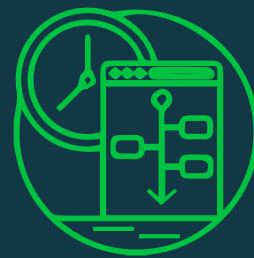
About UK100

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 heat and buildings 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 Shift,¹ 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.

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

Global challenges with local consequences

Following the release of the UK Government's Heat and Buildings Strategy⁵ (HBS) and 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 shortages⁶ and supply chain issues⁷ have been coupled by an emerging cost of living crisis and a heightened awareness of the need for fuel security. These issues serve to highlight that action is more urgent than ever.

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 heat and buildings. 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.⁸

⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1044598/6.7408_BEIS_Clean_Heat_Buildings_Strategy_Stage_2_v5_WEB.pdf

⁶ <https://www.aldersgategroup.org.uk/content/uploads/2022/03/Upskilling-the-UK-workforce-for-the-21st-century.pdf>

⁷ https://www.theade.co.uk/assets/docs/about/Getting_%28retro%29fit_for_net_zero-min.pdf

⁸ <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.



Context

Buildings are the UK's second largest source of emissions after transport. Residential buildings alone account for around one third of emissions from energy use.⁹ Reaching Net Zero in the buildings sector requires retrofitting the existing building stock, as well as lower emission construction and stringent efficiency standards for all new builds. The planning system and building regulations have a vital role to play in enabling the development of buildings capable of delivering Net Zero.

UK100 has made clear recommendations for faster and more scalable progress towards a Net Zero future. In our 2021 Power Shift¹⁰ report, we outlined how LAs must play a critical role in the decarbonisation of our buildings - leading the way with public sector buildings, coordinating funding, and prioritising place-based solutions.

In July 2021, UK100 together with the Mayor of the West Midlands, Andy Street, convened an international climate change summit. The summit launched a communiqué¹¹ 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 heat and buildings, Mayors and local leaders agreed:

“ A UK Government-led, long term plan must be put in place that supports all LAs to decarbonise new and existing buildings and homes in their areas. The plan should at least meet the manifesto commitment of £9bn public investment to deliver Net Zero in our homes and buildings and should seek to leverage further private investment to meet this goal.

⁹ https://www.uk100.org/sites/default/files/publications/Power%20Shift_Buildings%20-%20National%20Government.pdf

¹⁰ https://www.uk100.org/sites/default/files/publications/Power_Shift.pdf

¹¹ <https://www.uk100.org/publications/net-zero-local-leadership-communique-delivering-net-zero-uk>

UK100 also made a series of detailed recommendations informed by our other research activities relating to retrofitting existing buildings and ensuring new developments are Net Zero. A summary overview¹² of the main points have been grouped within the following three key categories:



Powers

a. For existing buildings

- Introduce minimum energy efficiency standards (MEES) for all buildings sold, along the same standards and timelines as rented properties
- Require LAs to enforce and report on MEES, revising the standards' scope and process so it becomes a practical tool for carbon improvements across existing building stock
- Require all properties that have carried out major renovation, refurbishment or change of use to have a new Energy Performance Certificate (EPC)
- Revise the EPC system to better reflect in-use energy performance, and create a national database of EPCs for tenanted properties, open to LAs
- Vastly increase national support for locally-specific solutions for retrofit, delivered locally.

b. For new buildings

- Accelerate the Future Homes Standard (FHS) and Future Buildings Standard to support LAs in enforcing more stringent heating and energy efficiency standards in new developments - create a floor for, not a ceiling on LA ambition
- Provide local planning authorities (LPA) with the power to prioritise the Climate Change Act in Planning Policy over developer viability, and remove competition between climate mitigation and adaptation criteria and other 'planning contributions'

¹² [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)

- Allow LAs to retain 100% of receipts from Right to Buy, but link this to a requirement to build new social housing to zero carbon standards
- Create a Strategic Planning role for larger areas not covered by Combined Authorities to better share resources and evidence
- Ensure new buildings are integrated with zero carbon transport and energy supply infrastructure (i.e. ready with electric vehicle (EV) charging capabilities)
- Power to require developers to prove 'in operation' energy and carbon performance, and to submit in-use energy and carbon data from new developments
- Update the base data for the five-year housing supply requirement
- Revise the Right to Buy legislation
- Reform building regulations and National Planning Policy Framework (NPPF) so:
 - Rural-town developments have adequate investment in community facilities and sustainable transport planning
 - All buildings meet the standards at the start of their construction (rather than planning application date)
 - energy efficiency and lower carbon standards for new housing stock are prioritised to reduce the need for future retrofit.



Frameworks and governance

- Establish a long term framework that supports LAs to decarbonise new and existing buildings, and set strong local standards on energy, CO₂ emissions and adaptation criteria
- Develop a regulatory framework to set standards for the heat sector to restore public trust, and incentivise investment in innovation and the supply chain.



Training

- A major training programme for the construction sector to enable it to install appropriate measures without harming the building fabric and increase skills to deliver zero carbon buildings.



Finance

- Set up a long term flexible funding scheme for landlords and private householders to enable them to meet EPC requirements
- Remove cost exemptions for MEES on all but the hardest to treat properties
- Increase resources, capacity and skills development for LAs, with a focus on planning policy and building control, housing, environmental health, trading standards and Elected Members
- Firm up long term funding commitments (specifically the Government's £9bn to deliver Net Zero in homes and publicly owned buildings - including social housing) to provide certainty for investment in innovation, skills and the supply chain
- Develop financing models with LAs and other key stakeholders that bring in private finance and drive down costs for private housing
- Ensure that funding frameworks do not pass the cost (financial or other) of decarbonising heat onto consumers, particularly the most vulnerable
- Invest in low carbon construction skills within local communities to ensure projects can scale quickly.

These recommendations exist alongside the imperative to act with greater pace and scale. We acknowledge recent Government announcements on new strategies, funding streams and targets. Although this is a step in the right direction, we must accelerate. Barriers still remain that prevent a transformative step-change.

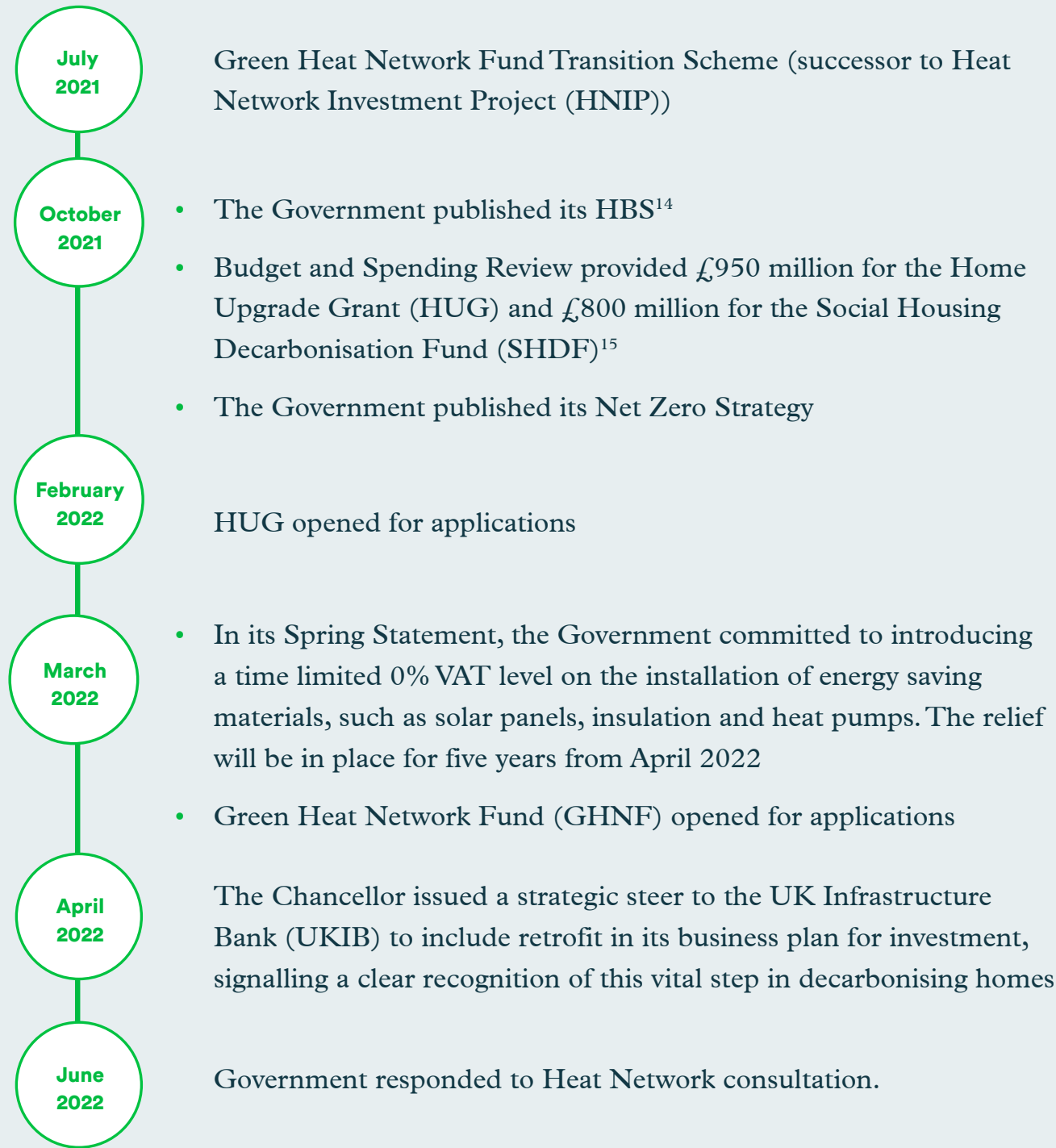
The CCC's 2022 progress report to Parliament¹³ highlighted that the Government has sent clear signals about the standards that will be required for new buildings in the future. However, the energy efficiency of the existing building stock is a notable policy gap that must be closed, with progress significantly off track, as rates of improvement in energy efficiency are well below the necessary level.¹³

¹³ <https://www.theccc.org.uk/publication/2022-progress-report-to-parliament/>



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.



¹⁴ 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

¹⁵ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1043688/Budget_AB2021_Print.pdf

What's happened?



There have been some positive indicators of progress in line with our recommendations over the last 12 months.

Heat and Building Strategy

The HBS included recognition that “to meet Net Zero virtually all heat in buildings will need to be decarbonised,” requiring “a co-ordinated system-wide approach to decarbonise cost-effectively.” Government ambitions included phasing out the installation of new natural gas boilers from 2035, ramping up hydrogen production, a ‘fabric first’ approach to energy efficiency, a commitment to develop the market and strong language on the need for local input and decision-making.¹⁶

The HBS promises that the 2020s will deliver a step change as we develop the pathway to Net Zero. For buildings, that means greater efficiency and flexibility, plus the supply chains and technology that can provide a cost-effective, carbon-free future.

UK100 was pleased to see a recognition of the need to “accelerate ‘no- and low regrets’ action now - which includes future-proofing new builds and growing the Net Zero workforce.” The Net Zero Strategy reinforced the key areas of focus outlined in the HBS in its Heat and Buildings chapter.¹⁷

¹⁶ 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

¹⁷ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf

Phasing out gas boilers

The HBS commits to phasing out gas boilers (with no new ones installed from 2035), because “Net Zero will mean gradually, but completely, moving away from burning fossil fuels for heating.” The Government subsequently consulted on this and are currently analysing the results before publishing a response.

Scaling up hydrogen

The HBS states that the Government is committed to use local trials and planning work to inform “major strategic decisions on the role of hydrogen for heat by 2026.” It also outlines that the following activities are planned with regards to hydrogen: large scale trials of hydrogen for heating, enabling blending of hydrogen in the gas grid, consulting on hydrogen ready boilers.

Scaling up heat pumps and heat networks

The HBS acknowledges the importance of heat pumps and heat networks in achieving Net Zero. It describes how we must act now to fulfil this potential, developing the market and bringing down costs. To stay on track, we need a UK market with the capacity to deploy at least 600,000 hydronic heat pump systems per year by 2028. This scaling up will reduce costs: the Government aims to “ensure heat pumps are no more expensive to buy and run than gas boilers by 2030.”

When it comes to low carbon heat networks, it is encouraging that the Government is making provisions for local decision-making to create confidence among investors and residents. In their words, as part of broader investment in the Heat Network Transformation Programme, “we are working with local actors to deploy low-carbon heat networks in suitable areas, developing our zoning approach, and providing capital support through the Heat Networks Investment Project and Green Heat Network Fund.”

The Government’s recent response to the Heat Network consultation announced that a national Heat Network Authority will be established to develop a standardised methodology for identifying heat network zones.¹⁸ It also stated that LAs will be given the power to act as or establish a local Zoning Coordinator and that LAs should be able to work together to deliver zones.¹⁹

¹⁸ <https://bills.parliament.uk/bills/3311>

¹⁹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1083318/heat-networks-zoning-consultation-government-response.pdf

Fabric first

There was a positive commitment to a ‘fabric first’ approach to Net Zero buildings, with the HBS describing how the journey must start with better energy performance, prioritising building fabric upgrades to, for example, walls and lofts before changing the heating system.

Multiple funding streams

As well as supporting the growth of private green finance, through providing clarity that the UKIB should consider retrofit as part of its offering, the Government has provided a range of targeted grants and schemes to improve affordability for ‘Green Homes’. Following on from the Green Homes Grant, which through its Local Authority Delivery (LAD) scheme in England supported projects throughout 2021 and in to 2022, the Government has subsequently consulted on new proposals. These include a new Boiler Upgrade Scheme (previously named the Clean Heat Grant), to support low carbon heat source installation through upfront capital grants. It has also initiated the HUG and GHNF schemes.

Net Zero skills

Delivering Net Zero heating will require a big uptick in relevant skills in the construction industry. The Government’s Heat Network Skills Programme seeks to create a competitive fund for supply chains and training, increasing the recruitment pool and its capability. There are some funds available for upskilling through the GHNF, as well as some indirect upskilling through the Heat Networks Delivery Unit (HNDU).

Setting standards

The HBS sets the direction of ‘ensuring all new buildings in England are ready for Net Zero from 2025.’ The Government is bringing in the Future Homes Standard (FHS) and has consulted on the Future Buildings Standard (FBS), both of which apply to new builds. These new standards will be introduced through legislation, and will aim to ensure no new buildings require a future retrofit to be energy efficient and low carbon.

Prioritising fuel-poor households

The Government is providing funding to LAs for low-carbon heating upgrades to fuel-poor households. This funding is provided via the SHDF, as well as through LAD, the Sustainable Warmth competition and the HUG.

HUG aims to provide funding for energy efficiency and low carbon heating measures. It focuses on vulnerable households and low income families living in the worst quality off-gas-grid homes (those rated EPC band D, E, F and G) in England. It aims to improve these homes to EPC band C, making progress towards the Fuel Poverty Energy Efficiency Rating C target, whilst decarbonising the housing stock. A further £950 million will be invested into HUG between 2022 and 2025.

SHDF exists to deliver energy performance improvements in social homes, offering up to £160 million for the first wave - an increase from the £60 million previously announced.

Importance of local

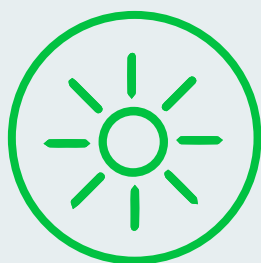
Finally, alongside all of these commitments in the HBS, was promising language around the importance of local input at every stage of this journey, making sure all interventions are tailored to the people and markets they serve. To achieve this, the HBS promised that the Government would “continue to work closely with the devolved administrations, and with local leaders and businesses across the UK, as we develop the policies and proposals set out in this strategy.”

In particular, the Government acknowledges the critical role LAs play and will continue to play in developing and delivering heat network connections. LAs are also recognised for enforcing regulations and policy (such as MEES), carrying out key statutory duties (like planning and controls for new-builds), piloting innovations and engaging with businesses and constituents.

Beyond this, the HBS recognises that LAs are well placed to focus support where it is most needed and where the opportunities are greatest to ensure a green economic recovery from the impacts of COVID-19.

However, it is reassuring to see the HBS also acknowledge the barriers to local action, “including limited resources and ability to access relevant technical expertise.” The HBS goes on to state that there is work to do to understand and overcome these barriers.





Highlights:

What's going well

- The Public Sector Decarbonisation Scheme (PSDS) is being effectively deployed by LAs to retrofit council-owned properties
- The Chancellor sent a letter to the UKIB that emphasised the need for financing for energy efficiency in homes. See our Finance progress report for more on this²⁰
- The Spring Statement included an announcement removing VAT on solar panels - see our Energy progress report for more on this²¹
- The Green Homes Grant LAD scheme has been more successful than the Government's 'one-to-many' centralised approach.

²⁰ <https://www.uk100.org/publications/local-net-zero-progress-reports/finance>

²¹ <https://www.uk100.org/publications/local-net-zero-progress-reports/energy>



Opportunities:

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

- New building regulations represent a potentially significant development, stipulating a 27%-30% reduction in CO₂ emissions (compared to current standards), depending on the building type
- The Government's EPC review has potential to improve the current system, as long as the need for a significant overhaul of the methodology is acknowledged
- The commitment to phase out the installation of new gas boilers is positive, but needs to happen sooner - 2035 is 13 years away
- The GNHF has replaced the HNIP - to support the commercialisation and construction of new low and zero carbon heat networks and the retrofitting and expansion of existing heat networks
- Appraisal of skills and training promised as part of the Heat Network Skills Programme
- Whilst the sentiment behind the Government's approach to expand energy efficiency investment is welcome,²² we strongly encourage that this is funded through new public capital investment, rather than by removing money from existing funding streams such as PSDS or the Boiler Upgrade Scheme
- In its action plan for improving EPCs, the Government recognises the need to provide an "EPC system that delivers accurate, reliable, and trusted EPCs."²³

²² <https://www.thetimes.co.uk/article/boris-johnson-hatches-plan-to-insulate-britons-against-winter-bills-vg7x-djg3h>

²³ <https://www.gov.uk/government/publications/improving-energy-performance-certificates-action-plan-progress-report>

Proposals for improvements to the system include better use of data, policy to revise penalty rates, policy to enforce compliance, and options for greater accountability. However, the required overhaul to the system which can better take account for a broader range of options is missing. And whilst the Government plans to improve Energy Performance of Buildings Regulations (EPB Regulations), to “deliver a data infrastructure fit for the future of EPCs,” it isn’t clear whether the potential to improve data collection and use is also in scope. These are important considerations; there is potential for these measures to improve the current situation but their scope needs to be broadened

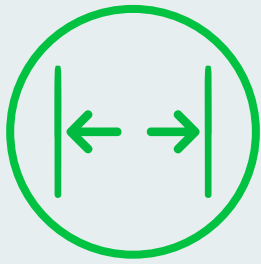
- Announcement of heat network authority and powers for local heat network Zoning Coordinators.



Challenges:

What could be going better

- MEES has some serious issues - it is inconsistent, easy to avoid and hard to enforce. These issues need to be urgently addressed, before the next deadline in April 2023 comes around
- The NPPF has the potential for major positive impact, guiding those sectors that are keen to decarbonise their buildings. However, the NPPF doesn’t currently offer the clarity required, and we know from experience that reform in this area is slow
- The Government is setting a course to significantly scale up heat pumps, fuelled by hydrogen-powered electricity. However, not every home can have a heat pump and gearing the system for hydrogen-supply is complex. A longer term solution which should not preclude solutions that can deliver in the shorter term. Place-based solutions, rather than a one-size-fits-all approach, are imperative.



Gaps:

What's missing?

- We have not seen any commitments for new money to be invested into creating a Net Zero future for heat and buildings
- The Government is keen to include hydrogen as a key contributor to Net Zero: we know from the recent Energy Security Strategy (ESS) that the Government aims to reach an ambitious 10GW of hydrogen production by 2035 - up from 5MW announced earlier in the Government's hydrogen strategy - more detail on how to deliver against these targets is urgently needed
- Despite the commitment to a fabric first approach towards achieving energy efficiency highlighted in the HBS, this approach was not echoed in the Government's recent ESS, which has not factored in the critical role of energy efficiency. See our Energy progress report for more on this.²⁴

²⁴ <https://www.uk100.org/publications/local-net-zero-progress-reports/energy>



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

The size of the UK's building stock makes it an overwhelming sector to decarbonise. Instead of a centralised approach, we must find ways to 'divide and conquer'. LAs are effective intermediaries and in the ideal position to bring stakeholders together. We believe social housing is a great place to start, with local partnerships helping to build the right skills within the construction industry. This approach also ensures the benefits of Net Zero buildings will be felt locally - in businesses and communities.



Member Insight:

Leeds

Leeds received £25.3m as part of the PSDS to install a range of decarbonisation measures across the city. The Sustainable Energy and Air Quality team worked with Cenergist, Equans and Leeds Building Services to deliver the scheme. In total, 38 civic buildings - including leisure centres, primary schools, children's centres, homes for older people and offices - will benefit from a range of low carbon heating, thermal efficiency, solar PV and other energy efficiency measures. All projects are well underway, and expected to be connected by end July 2022. These measures will save 3,951 tonnes of carbon and 20,538MWh of energy, and produce 2168MWh of renewable energy.

The Leeds PIPES district heating network continued to grow at pace in 2021, with more buildings connecting to the network. This work was also supported by PSDS funding, which prioritises connection to heat networks as a low cost option to decarbonise

heat. New connections include a secondary school, a private training centre, a building shared by the Department for Work and Pensions and the Department for Health (plus a swimming pool), and a nursery. Six more sites are on track for connection in 2022, including major city centre council buildings, an art gallery and library, a hospital wing and part of Leeds University City campus.



Finance

Despite initiatives to try to develop a market, costs for decarbonising heat are still prohibitively high and supply chains at the scale required to meet the Government's targets do not currently exist.

While the PSDS is helpful for enabling LAs to meet their own operational targets, finance will be required to enable LAs to decarbonise their wider communities and for this more strategic, long term private finance will likely be required to crowd-in investment and scale local retrofit markets.

While it's good that the Government's recent ECO Plus proposal seems to reflect the need for urgent funding of energy efficiency measures in buildings, it's critical this isn't funded by taking money from other essential funding pots. Read our joint letter to the Government for more on this.²⁵

UKIB is well positioned to help with Net Zero heat and buildings, and it is positive to see that retrofit and heat networks were included as priority areas for initial investment in pilot projects in the bank's Business Plan.²⁶ But many more broader investments into skills and the supply chain are required to bring about the system change required.

²⁵ <https://9tj4025ol53byww26jdkao0x-wpengine.netdna-ssl.com/wp-content/uploads/ECO-Plus-letter.pdf>

²⁶ <https://www.ukib.org.uk/sites/default/files/2022-06/UKIB%20Strategic%20Plan%202022%20-%20Full.pdf>



Member Insight: Greater Manchester

Greater Manchester has invested £78m in retrofit and low carbon energy generation for over 150 public buildings in the 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 £20m of investment will be delivered in 2023.



Frameworks and Governance

Buildings are at the very heart of our communities and are interconnected with the broader infrastructure of energy and transport. Making our existing buildings more efficient and planning and developing future Net Zero places requires a comprehensive approach, which integrates planning across housing, energy and transport. So, we need a delivery framework capable of helping to navigate the transformation across these sectors and across areas.



Devolved administrations

Scotland

Scotland's Local Heat and Energy Efficiency Strategy pilot established local priorities and plans for improving building energy performance and using low carbon heat. Subsequently, the Local Heat and Energy Efficiency Strategies (Scotland) Order 2022 [draft] was laid before the Scottish Parliament on 11 March 2022. The instrument places a duty on LAs to produce Local Heat and Energy Efficiency Strategies and Delivery Plans by 31 December 2023, and subsequently review and publish updated strategies and plans on a 5-yearly cycle.²⁷

Wales

Wales is covered by the UK Government's Energy Efficiency regulations so the Welsh Government cannot enact its own legislation in this area. It has a role to play in offering guidance and has established the Nest scheme, which offers a range of free, impartial advice and, to eligible individuals, a package of free home energy efficiency improvements such as a new boiler, central heating, insulation, or solar panels.

²⁷ <https://digitalpublications.parliament.scot/Committees/Report/NZET/2022/5/3/55c4487e-9633-4211-b372-42b90a4034d4-1#Introduction>



Other developments

The Government announced that as well as regulating energy, Ofgem will be the UK's heat regulator. This is broadly positive and could help address some major issues. The relatively low cost of gas and oil means it is difficult to build a business case for low carbon heating solutions. However, by ensuring greater parity across these markets, Ofgem could help to drive retail consumer behaviour. Additionally, Ofgem could improve public trust in the sector, which is currently lacking because of the absence of standards and regulations, which has in turn led to the use of inappropriate technology and high costs.

It's too early to predict how this new appointment will play out, but UK100 sees it as an encouraging development, particularly if it enables closer consideration between energy generation and heat.

Analysis



Overall, there's been some positive progress from the Government on Net Zero heat and buildings. However, there is still much potential to be fully realised before we can confidently say we're on the right track.

More energy efficiency

The easiest energy to decarbonise is the energy we never have to use. Energy efficiency measures in households have enormous potential, and the Government should absolutely be prioritising support for mass retrofit. It was concerning to see this issue was largely missing in the latest ESS and this concern was echoed strongly in the CCC's 2022 progress report.²⁸ So, while the recent news about the Government's urgent Autumn 2022 retrofit plan has promise, it must be funded without skimming from other important Net Zero-related funds and LA delivery must play a central role in these plans.

Double down on local powers

We were pleased to see the extent to which the 2021 HBS emphasised the need for local involvement, but there are still issues to deal with. The LAD of the Green Homes Grant has been a success, outperforming the Government's previously centralised approach. LAs now need the funding and powers to help local households rapidly decarbonise. The new powers afforded to act as Zoning Coordinators is a potentially positive development for LAs and indicates the Government is open to the idea of local delivery.

Act on fabric first

The HBS outlined a fabric first approach to Net Zero buildings, which we wholeheartedly support. However, we need to see more detail and clear support on this to feel confident it's an approach that will be followed.

²⁸ <https://www.theccc.org.uk/publication/2022-progress-report-to-parliament/>

Non-competitive funding

The PSDS has been a key enabler for LAs over the last year, but its impact is limited because it is both a competitive and a short term funding mechanism. LAs must have access to more long term funding to fulfil their potential. Investment from the UKIB could help with this by building confidence and attracting finance to help the market scale.

Hydrogen

The Government has given strong signals in its target setting for hydrogen that it sees a prominent role for the energy in the future, through recently doubling its generation target in the ESS from 5MW to 10MW. However, it hasn't yet made a 'strategic decision' on hydrogen, currently scheduled for 2026. This sends confusing signals, and while it is important to innovate and transform the energy market, we need a clearer picture of hydrogen's technical capabilities and most appropriate deployment before we get too much further down this road.

Heat Networks

Heat Networks It is encouraging that Energy Bill²⁹ includes provisions for district heating networks and has enshrined the role of LAs as Zoning Coordinators in its text. Heat Networks will play an important role in those areas where they are best suited and offering LAs the ability to steer these developments is welcome.

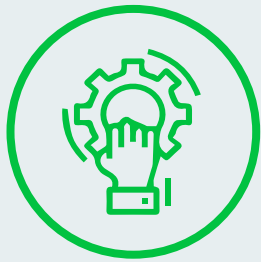
Get the right skills in place

We will not reach Net Zero buildings without the right skills in place in our construction workforce. The Government has some training plans and funding in place, but it needs to do more to ensure supply chains and industry have the capacity and capabilities to deliver.

Net Zero new builds

It seems extremely shortsighted to build homes today that will require retrofitting. We need to urgently introduce the FHS, instead of waiting until 2025 to begin consultation as is currently planned. Some smart planning reform could make Net Zero a priority in the development process, rather than a 'consideration' - we predict the impact of this would be significant.

²⁹ <https://bills.parliament.uk/bills/3311>



Recommendations

In conclusion, our key recommendations are as follows:

- Dedicated, large scale, long term, non-competitive funding for place-based solutions to the decarbonisation of existing buildings
- By reforming EPCs, we can prioritise better and ensure place-based solutions
- We need a clear framework for delivering the partnership with LAs outlined in the HBS
- By setting a floor on ambition and standards rather than a ceiling, we can empower LAs to push further ahead, faster
- Accelerate the delivery of the FHS



Glossary of terms

CCC	Committee on Climate Change
EPB	Energy Performance of Buildings
EPC	Energy Performance Certificate
ESS	Energy Security Strategy
EV	electric vehicle
fabric first	minimising heat loss from the building, through insulation measures to maximise energy efficiency before focusing on energy supply
FBS	Future Buildings Standard
FHS	Future Homes Standard
GHNF	Green Heat Network Fund
GW	gigawatt
HBS	Heat and Buildings Strategy
HNDU	Heat Networks Delivery Unit
HNIP	Heat Networks Investment Project
HUG	Home Upgrade Grant
LA	Local authority
LAD	Local Authority Delivery - the part of the Green Homes Grant delivered by LAs
LPA	Local Planning Authority
MEES	Minimum Energy Efficiency Standards
MWh	megawatt hour
NAO	National Audit Office
NPPF	National Planning Policy Framework
PSDS	Public Sector Decarbonisation Scheme
PV	photovoltaic
SHDF	Social Housing Decarbonisation Fund
UKIB	UK Infrastructure Bank



Acknowledgements

We would like to thank all the UK100 members that contributed updates in the development of the progress reports. Particular thanks go to Zoe Roberts, Harriet Wadsworth and Pete Nolan from the UK100 team, to the team at Quantum Strategy and Technology and to Lucy Langdon.





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