

Net zero and devolution

The role of England's mayors in the
climate transition

About this report

This report looks at how mayors in English city regions can support the UK's net zero 2050 goals. It focuses in particular on the role they can play in decarbonising transport and buildings, and ensuring the workforce in their regions have the skills to support an industrial strategy based on green growth.

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Summary

In 2019, the UK government passed trailblazing legislation committing itself to achieving 'net zero' greenhouse gas emissions by 2050. The UK has already cut its emissions by over 45% since 1990,¹ mostly through centrally directed policy around power generation. But eliminating the remaining emissions will be more difficult and require policy interventions across a wider range of sectors involving a more diffuse set of people and organisations, often operating at a local level.

The green transition will not succeed without strong local involvement. In the run-up to the COP27 climate negotiations in November 2022, the Greater Manchester mayor, Andy Burnham, argued that his region is “ready to lead the next industrial revolution for the UK. But we urgently need full government backing for our 2038 target.”² Andy Street, his West Midlands counterpart, argued that mayors “will play a huge collective role in tackling the climate emergency”, and said the government needed to make it easier for them to do so.³

This paper sets out how to do that. In particular, it focuses on how mayors can support the decarbonisation of two of the most critical sectors – transport and buildings – which account for more than half of all territorial emissions. It also looks at how mayors can ensure the workforce in their regions have the skills to support an industrial strategy based on green growth, and businesses have the confidence to invest in it.

Mayors can play a critical role in delivering net zero – and their importance will only increase

Local councils already deliver net zero initiatives, such as retrofitting social housing, or promoting alternatives to car use on the roads they control. But they do not have the capacity to undertake strategic planning at a regional level.

Directly elected regional mayors, who now lead authorities in 10 city regions, can fill the governance gap between central government and individual local authorities and provide leadership on net zero at a regional level. Devolved mayoral authorities, which in this paper refers to both the Greater London Authority and the nine combined authorities in other city regions led by metro mayors, do not have a statutory role in delivering net zero. However, most regard reducing carbon emissions as a core part of their mission. Mayors have set ambitious net zero targets, such as Burnham's, and some have developed comprehensive strategies to tackle emissions.

Devolved mayoral authorities also have direct involvement in policy areas critical to net zero. They control consolidated multi-year transport budgets, for instance, and can work across local authority boundaries to support low-carbon travel at the level of a functional economic area and main regional commuter routes. All control regional adult education budgets so have the potential to shape training provision to address skills gaps linked to the green transition, which are likely to vary between regions and in some cases will be highly localised.

Some devolved mayoral authorities have sought to use their scale to co-ordinate publicly funded retrofit initiatives with their constituent local authorities, with the aim of developing local supply chains. Mayors' offices are collecting data on their regional housing stock, enabling them to target retrofit initiatives more effectively.

Mayors themselves can also use their convening and planning powers to integrate net zero goals into their region's economic strategy. They are at the forefront of positioning the UK to be a leader in areas such as offshore wind and carbon capture and storage. For example, the Tees Valley metro mayor, Ben Houchen, has sought to build an industrial cluster around net zero technologies; Burnham's Greater Manchester is developing a low-carbon hydrogen hub. Such initiatives will be critical to the UK government's aim of ensuring that "green and growth go hand in hand".⁴

Mayors therefore have the potential to play a critical role – and their importance will increase as the transition gathers pace.

But mayors are currently hamstrung in their ability to deliver net zero

England's mayors are underpowered and under-resourced. They rely on small policy teams and receive little funding to work specifically on net zero objectives. There is also wide variation in the capacity and cohesion of devolved mayoral authorities. Outside London, mayors can in most cases make decisions only with the support of their constituent local authorities. Some local authorities see a clear benefit of working together at a regional scale on net zero; others are currently more reluctant.

Funding to mayoral combined authorities is often linked to delivery of specific projects, giving mayors little flexibility in how they allocate resources. Like local authorities, the funding they have received has often been short-term and allocated through competitive bidding processes. This makes long-term planning difficult.

Stop-start policy making at a national level and short-term funding has made it harder for mayors to bring their transport, spatial and skills plans into a coherent overall strategy for low-carbon growth. It has also undermined business confidence, making it harder to build local supply chains.

The UK government has not set out a coherent role for city regions

The UK government acknowledges that many aspects of its net zero strategy cannot be delivered from the centre. But until recently the government has focused largely on the role of local authorities, and given much less attention to the role of mayors in England's city regions.

The UK government's net zero strategy, published in October 2021, made only passing references to the role of devolved mayoral authorities, rather than seeing them as key players in driving decarbonisation and a shift to green industry. This is despite the government regarding devolved government as critical to the success of 'levelling up', its other long-term developmental objective. Like levelling up, net zero will entail structural changes to the economy that cannot be delivered from the centre alone.

This is the right time to address this. For both the government and the opposition, net zero and subnational devolution are key long-term policy goals. The UK government is required to produce an updated net zero strategy by March 2023, which will set out in more detail how it intends to reach its ambitious emissions targets. It is also pushing ahead with commitments in the levelling up white paper to deepen and extend devolution across more regions of England. The independent review of the government's net zero strategy, published in January this year, called for all future devolution deals to have a strong net zero element.⁵ There is therefore an opportunity to integrate mayors into the UK's net zero strategy and give them the powers to help deliver it.

Recommendations

The government should put mayors at the heart of its approach to net zero

The UK government's net zero strategy, published by the Johnson administration in October 2021, set out a series of long-term regulatory targets that will guide the transition in areas including energy, transport and heating. But as we argued at the time, it lacked detail on the policies needed to meet these targets and how they would be delivered.⁶ As a result of these gaps, the High Court ruled in July 2022 that the strategy was in breach of the 2008 Climate Change Act.

The current government has until March 2023 to remedy this by publishing an updated strategy. This time, it should involve devolved mayoral authorities much more closely in its approach. They could provide useful input into policy development, drawing on their understanding of barriers at the local level such as in skills shortages or accessing finance. And they could help government think through how to equip each part of the delivery chain required for policies to succeed, from regulators through to local authorities and businesses.

The government has created local net zero forums to strengthen interactions between local and central government. However, these are just for officials and do not feed into ministerial decision making or strategy.

To address this, the government should establish a Net Zero Delivery Board that includes ministers, mayors, industry and local representatives to help it deliver the policies set out in the net zero strategy. This group could help ministers in Whitehall to drive progress and unblock issues, giving them greater visibility over how well policies were working at a regional level. It would also give mayors a forum in which to share lessons and act as testbeds for schemes elsewhere in the country, ensuring city regions could be more than the sum of their parts in supporting the net zero transition.

More widely, the net zero strategy should include a clearer framework setting out the role regional and local government will play in delivering net zero, and how they will be equipped to do so. The Climate Change Committee described this as a major gap in the 2021 strategy.⁷

The updated net zero strategy should address poor data sharing

Alongside a high-level forum to guide the government's approach to delivery, the government should also address underlying gaps in data sharing between central and local government. As this paper sets out, devolved mayoral authorities and local authorities collate a large volume of useful data in relation to areas such as housing condition, supply-chain bottlenecks and skills shortages. But this data is currently not well utilised in Whitehall. A failure to engage with local authorities on policy design has contributed to recent failures, such as the Green Homes Grant for household energy efficiency measures.⁸

The government's levelling up white paper proposed several institutional changes to improve data sharing between devolved subnational government and Whitehall, including the creation of an Office for Local Government and regional levelling up directors – senior civil servants to act as a bridge between central and regional government. These changes should be implemented, and the new institutions used to improve information exchange in relation to net zero, particularly in areas such as skills. The government's independent review of net zero has called for the creation of a new Office for Net Zero to drive overall delivery. The government should ensure mayoral devolved authorities are linked in to this new body.

Give a long-term funding settlement for net zero to devolved mayoral authorities where they seek it, starting with Greater Manchester and West Midlands

The core argument of this paper is that regional government can make a major contribution to tackling net zero, but that it is currently under-utilised.

With the exception of the mayoral investment fund (a non-ringfenced long-term fund for investment in economic development) the funding mayors receive from central government is tightly linked to specific projects. This limits their ability to take a strategic approach to net zero. The government has recognised the drawbacks of the current fragmented funding settlement and indicated that it is willing to move to a new model. At the 2022 autumn statement, the chancellor said that Greater Manchester and the West Midlands could be offered "single departmental-style settlements" at the next spending review as part of their 'trailblazer' devolution deals.⁹

The government should follow through and provide consolidated, long-term funding for net zero to mayoral devolved authorities, where they seek it. This could include funding for buildings retrofit, discussed below, but also resources for other areas such as industrial decarbonisation, clean energy generation and climate-change adaptation. This is also in line with the recommendation of the Independent Review of Net Zero that the government should simplify the local net zero funding landscape.¹⁰

As part of the new accountability framework that would support greater devolution, devolved mayoral authorities should be made responsible for their regional carbon budgets. Renewal of funding settlements would be conditional on them meeting agreed emissions targets. The criteria for the existing mayoral investment funds should also be amended to require them to be spent in ways consistent with regional and national net zero commitments.

Bring the transport powers and funding flexibility of mayoral combined authorities up to the level of London

The proportion of journeys taken by public transport in Greater London is around double that of other English cities. Almost half of commuter journeys in London are taken by public transport, compared to less than 25% in most other UK cities. Closing this gap would make a large contribution to decarbonising the transport sector.

The greater reliance on cars in city regions outside London is in part a result of their lower density, which makes public transport schemes less viable. But the government could also make it easier for city regions to improve the quality and integration of public transport. The government has committed to moving towards a 'London model' of funding for other devolved mayoral authorities, but it needs to accelerate this process. It should consolidate all transport funding in a long-term block grant, giving city regions the flexibility to set their spending priorities and shift funds easily between them.

Offer all mayors multi-year funding for retrofit

Many mayors are attempting to co-ordinate retrofit initiatives at a regional scale to build a bigger pipeline of projects and encourage private investment in the sector. But mayors, and the constituent local authorities within their city regions, are constrained by the government funding model for retrofit, which is often delivered through short-term competitive grants targeted at specific types of buildings or households. The most successful international examples of retrofit programmes have not used this grant-based approach.¹¹

The government should consolidate the fragmented grants for retrofit into a multi-year funding pot that devolved mayoral authorities can administer in co-ordination with local authorities. This would give the regions greater flexibility to tailor retrofit initiatives to the requirements of the local housing stock. A flexible, longer-term funding model would make it easier for mayors to encourage businesses to invest in the supply chain, and to align the training to support this through their control of the adult education budget.

The government's current position on the devolution of retrofit funds lacks urgency. It has said that it will "explore the potential benefits" of this approach before the next spending review.¹² The current funding model is not delivering retrofit at the scale and pace needed to meet the UK's net zero goals. The government should use the 'trailblazer' deals it is currently negotiating with Greater Manchester and the West Midlands to establish a new model of devolved funding that could then be offered to all devolved mayoral authorities.

All devolved mayoral authorities should establish a regional 'one-stop shop' for retrofit

Many homeowners are reluctant to invest themselves in energy efficiency measures for their homes because of a lack of reliable advice on the process. Some devolved mayoral authorities such as Greater Manchester have addressed this by creating a single regional source of information on retrofit, including advice on trusted suppliers. This can help to increase confidence among consumers who are able to pay for energy efficiency measures themselves. Providing this service on a regional level gives efficiencies of scale. The devolved mayoral authority can also more effectively engage with local contractors than local authorities. Other devolved mayoral authorities should follow this example.

Government must set consistent net-zero policies to support regional delivery of green skills

Ensuring the labour force has the skills to deliver net zero will be critical to ensuring a cost-effective green transition. Devolved mayoral authorities are better placed than central government to identify and respond to local skills gaps, using their control of the adult education budget and other funding streams. However, frequent churn at a national level on net zero policies in areas such as housing regulations has created uncertainty among training providers, businesses and employees regarding the future shape of the green economy. Devolved mayoral authorities have therefore spent a relatively small share of their education budgets on green skills training programmes to date.

Previous research by the Institute for Government identified regular policy churn as one of the biggest complaints of businesses regarding the government's net zero strategy.¹³ These concerns are shared by local and regional leaders. To address this, the government needs to ensure that as much as possible it sets a consistent net zero policy framework, supported by credible targets and long-term funding.

Devolution in England and net zero

Regional mayors are beginning to fill the 'missing middle' in England's governance

The UK has historically been one of the most centralised large democracies in the world. In 1998, extensive powers were devolved to Scotland, Wales and Northern Ireland. But in England, powers remained highly concentrated in Westminster. In contrast to many advanced economies, England has lacked strong institutions between local councils and central government that can engage in strategic planning at a regional level.¹

Directly elected mayors and the authorities they lead are starting to fill the 'missing middle' in the governance of England. The Greater London Authority was established in 1999 and the first elections for the mayor of London and the London Assembly were held in 2000.² Since 2015, the government has devolved a range of powers to other English city regions and established directly elected 'metro mayors'.

Metro mayors and the London mayor were created to strengthen co-ordination between local authorities, to develop joined up economic strategies for their regions, to provide a direct point of electoral accountability, and to give their regions a stronger voice in national debate and negotiations with central government.³

Central government has seen devolution to city regions as a means to support regional economic development. In 2015 in Manchester, the then chancellor, George Osborne, emphasised the role that mayors could make in reducing closing the "decades-old economic gap between north and south" by improving co-ordination at a regional level.⁴ More recently, the 2022 *Levelling Up the United Kingdom* white paper identified "problems of a lack of information and misaligned incentives at the centre" as one of the reasons for repeated failure of efforts to address the UK's geographical disparities. It therefore made extending and deepening subnational devolution a key part of the government's levelling up strategy.⁵

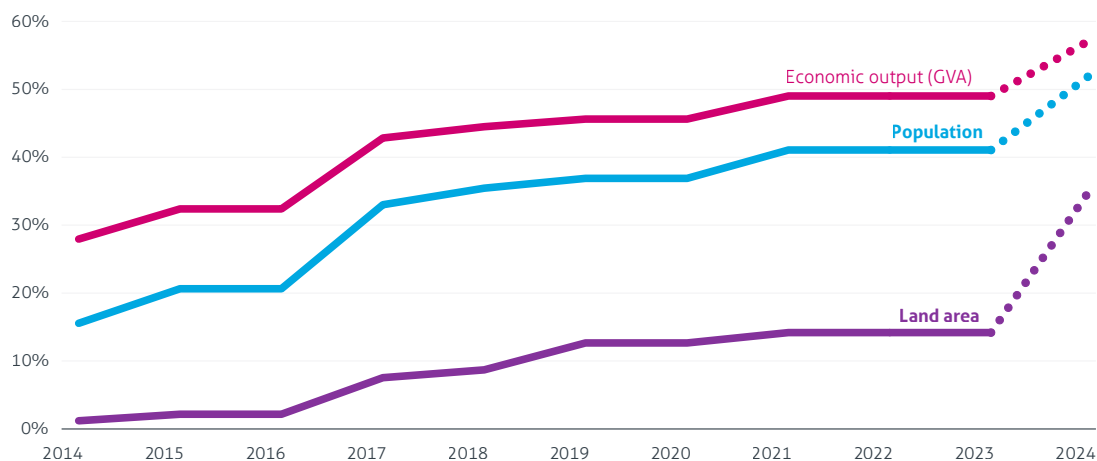
Ten city regions now have directly elected mayors, covering over 40% of England's population, almost 50% of its economic output and 33% of its territorial greenhouse gas emissions.* New devolution deals concluded in 2022 mean that more than half of England will have a directly elected mayor by 2024.**

* Territorial emissions are emissions that occur within national borders (or within a subnational region of the UK). These are production-based estimates that include emissions from businesses based in the UK; activities of people that live in the UK; land use such as forest, crop or grazing land. They do not include emissions from international travel and the production of goods and services that the UK imports from other countries.

** In August 2022, the government concluded mayoral devolution deals with the East Midlands and York and North Yorkshire. At the autumn statement in November 2022, the government announced devolution deals with Cornwall, Norfolk and Suffolk. An expanded North East deal, which includes the existing North of Tyne mayoral combined authority, was concluded in December 2022.

In the levelling up white paper, published in February 2022, the government set a target of extending devolution deals to all parts of England that want one by 2030, although not all regions currently wish to have a directly elected mayor.

Figure 1 **Proportion of England covered by mayoral devolution deals**



Source: Institute for Government analysis of ONS, population estimates, mid-year 2021; ONS, regional gross value added, 2020; ONS, standard area measurements for administrative areas in the UK. Notes: All data includes Greater London. Future deals announced by the UK government are East Midlands, York and North Yorkshire, Suffolk, Norfolk, Cornwall, and North East.

London’s constitution and powers are distinct

England’s subnational governance is complex and uneven. There are important differences between the constitutional arrangements and powers of London and other city regions.* In London, the mayor heads the Greater London Authority and exercises his powers autonomously from the capital’s constituent local authorities.⁶ His decisions are scrutinised by the London Assembly, which must also approve his budget.

In other city regions, mayors, often called metro mayors, lead mayoral combined authorities (MCAs), whose board is formed of all the leaders of the councils in the region. Metro mayors have a direct electoral mandate but they are also accountable to the constituent local councils. Most decisions that MCAs take require the support of at least a majority of the constituent local authorities (usually including the mayor). Big decisions – for instance on transport strategies, investment plans and budgets – often require a two-thirds majority or sometimes unanimity.⁷

Mayors have set ambitious net zero targets

Devolved mayoral authorities do not have a statutory duty to deliver net zero. The current net zero strategy does not specify regional emissions targets or set out a clearly defined role for regional devolved government in supporting net zero policies. But devolved mayoral authorities regard cutting emissions in their regions as a core part of their responsibilities. Most of them have set regional carbon budgets using a methodology that downscales the global carbon budget (the total emissions consistent

* There is no standard collective term to describe this middle tier of government. In this paper, we use the term ‘devolved mayoral authority’ to refer collectively to subnational regional authorities between central government and local councils.

with meeting the UN Paris climate agreement) to local areas. They have used these to set net zero targets and ambitious emissions reduction strategies, although they acknowledge that they do not hold all of the powers to achieve them.

Many of the net zero targets of the mayoral devolved authorities are well ahead of the government's 2050 target. This is a recognition that city regions will have to take the lead in decarbonising the economy, given the additional challenges of cutting emissions in rural areas.

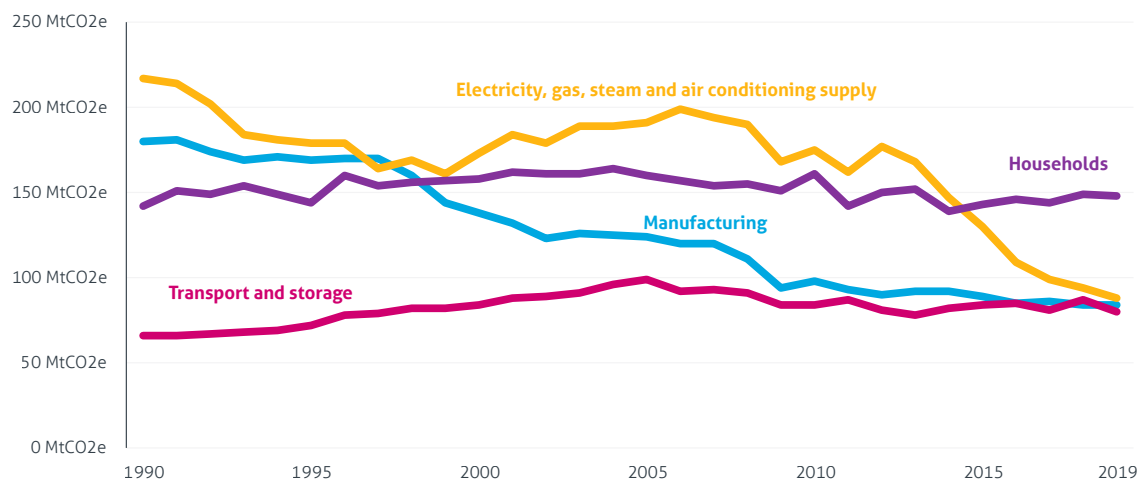
Table 1 **Net zero targets and emissions reduction strategies of mayoral devolved authorities**

Mayoral devolved authority	Emissions reduction target/strategy
Cambridge & Peterborough	Net zero by 2050. Accepted recommendations of regional independent climate commission.
Greater London	Net zero by 2030. Regional carbon budget set. Four pathways to achieve net zero have been modelled.
Greater Manchester	Carbon neutral by 2038. Regional carbon budget set. Strategy targets annual average CO2 reduction of 15%.
Liverpool City Region	Carbon neutral by 2040 "or sooner". Regional carbon budget set. Strategy targets annual average reduction of 12.6%.
North of Tyne	No specific goal but development plan aims to achieve "zero carbon, zero poverty".
South Yorkshire	Net zero by 2040. Regional carbon budget set, requiring annual emissions reductions of 13.2%.
Tees Valley	"Net zero industrial cluster" by 2040. Regional carbon capture project aims to capture 20 million tonnes of CO2 annually by 2030.
West of England	Net zero by 2030. Regional carbon budget set. Strategy targets annual emissions reductions of 10% a year.
West Midlands	Carbon neutral by 2041. Regional carbon budget set. Strategy targets annual average reduction of 13%.
West Yorkshire	Net zero by 2038 with "significant progress" by 2030. Regional carbon budget set. Targets reduction of 73% by 2030 and 82% by 2038.

Mayors hold powers that relate to some of the most challenging parts of the net zero strategy

While the UK has made substantial progress in decarbonising electricity generation, a policy largely driven by the UK government from the centre, carbon emissions from transport, households and manufacturing have fallen far less.

Figure 2 UK greenhouse gas emissions by sector, 1990–2019



Source: Institute for Government analysis of Ricardo Energy and Environment and Office for National Statistics, 'UK Environmental Accounts: 2021'. Notes: MtCO₂e is million tonnes of carbon dioxide equivalent.

Devolved mayoral authorities have an important role in supporting the decarbonisation of all three of these areas. All the devolved mayoral authorities with the exception of North of Tyne control a multi-year budget to invest in transport infrastructure, meaning they are able to improve public transport and promote cycling and walking.* Mayors can also help to co-ordinate the deployment of public charging infrastructure for electric vehicles.

With regards to housing and planning, mayors' direct powers are more limited. Unlike local councils, mayors do not control large housing stocks and they are not responsible for enforcing regulations for existing buildings.** But devolved mayoral authorities are responsible for regional spatial planning and they can use their convening power to co-ordinate the retrofitting of local authority buildings at scale.

All the mayors also manage the adult education budget for their region, giving them a role in industrial decarbonisation, and ensuring local skills match the needs of the green economy. Alongside local enterprise partnerships, they play a central role in shaping local economic priorities and setting the regional industrial strategy to meet them. They can therefore align the net zero strategies with efforts to support levelling up by developing new sources of low-carbon growth.

* The North East Combined Authority, which will include the area currently covered by the North of Tyne city-region, is set to receive a similar transport budget from 2024.

** The mayor of London can set building regulations for new developments, including energy efficiency requirements that go beyond national standards.

Table 2 **Summary of powers of devolved mayoral authorities relating to net zero**

		London	Cam & Peter.	Greater Manc.	Liverpool C.R	North of Tyne	Tees Valley	South Yorkshire	West of England	West Midlands	West Yorkshire
Transport	Consolidated transport budget										
	Powers to regulate buses (franchise)										
	Powers to direct measures on local road network										
	Highway authority of trunk roads										
Planning	New buildings regulation										
	Mayoral development corporation										
	Spatial development strategy										
	Planning call-in powers										
	Consultation on strategic planning										
Skills	Adult education budget										
Waste	Role in waste management										

Together, transport, buildings and homes account for more than half of the UK's territory-based emissions but they are sectors where progress on cutting emissions has been limited. Given this, and the important role metro mayors could make in delivering progress in these sectors, the next two sections of the paper examine in more detail how mayors can use their powers and scale to cut emissions, looking in turn at transport, and buildings and homes.

The final section looks at the part that mayors can play in ensuring the labour force is able to adapt to the green transition, and how they can support an industrial strategy that fosters low-carbon growth.

Transport

Transport is the biggest source of greenhouse gases in the UK by sector, accounting for around a third of the UK's emissions.¹ The UK government strategy to decarbonise the transport system requires an extensive 'modal shift' in urban travel, with a target that half of the journeys in towns and cities will be cycled or walked by 2030. The share of journeys taken by public transport must also increase substantially.²

Alongside this, the government is seeking the comprehensive electrification of passenger vehicles, with the sale of new petrol and diesel cars and vans due to end by 2030. This requires a co-ordinated roll-out of charging infrastructure and a major expansion of grid capacity to handle increased electricity demand.

Mayors have a key role in delivering transport decarbonisation goals by improving the quality of public transport, developing new infrastructure to support active travel, and helping to deploy the infrastructure to support the electrification of passenger vehicles.

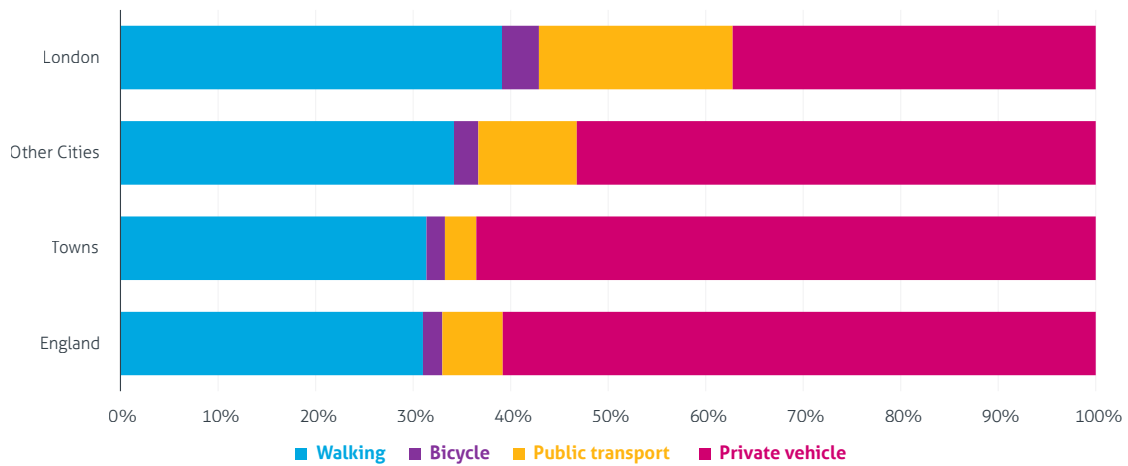
Cutting emissions is one of three core criteria for the current devolved funding package for city regions outside the capital, alongside projects that support growth and productivity, and levelling up. As part of their transport funding applications, mayoral combined authorities were required to forecast the reduction in carbon emissions and congestion from proposed capital improvements, and project the uptake in low- and zero-emission transport. For example, Greater Manchester is targeting a 15% increase in walking, 12% increase in public transport trips, and 150% increase in cycling trips by 2030.³

Closing the gap in public transport provision between London and other cities is an important part of net zero

Regional mayors have regularly emphasised the goal of developing a 'London-style' service for public transport with a higher quality of provision and better co-ordination between different parts of the system. In its levelling up white paper, the government also set the broad target of bringing the transport systems of other cities "significantly closer to the standards of London".⁴

Closing the gap in the use of public transport between London and other English cities would be a big contribution towards achieving the emissions reduction targets for the sector. In 2019, prior to the pandemic, 20% of all journeys in London were taken by public transport and 37% by car. In other English cities, the figures were 10% and 53% respectively (figures for other individual city regions are not available). Almost half of commuter journeys in London are taken by public transport, compared to less than 25% in most other UK cities, including large ones.⁵

Figure 3 Journeys by mode of travel in England

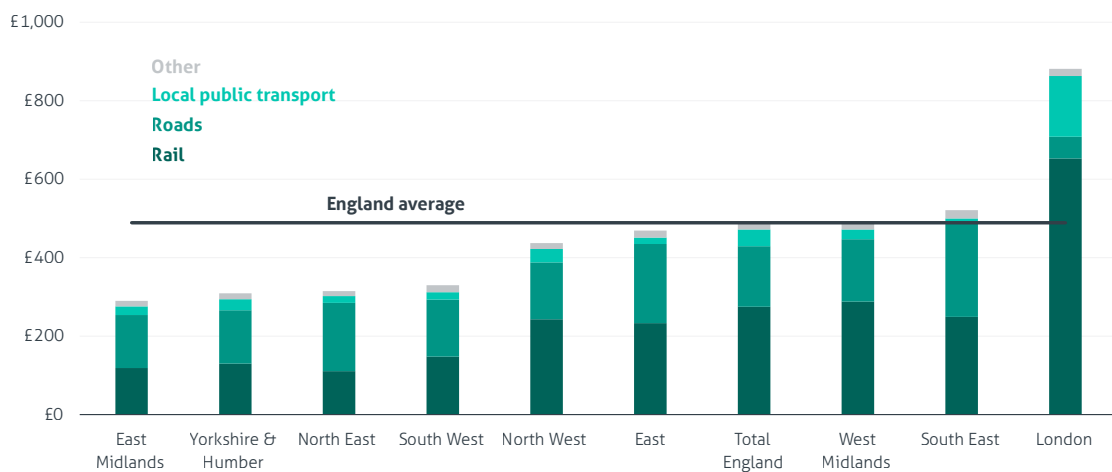


Source: Institute for Government analysis of Department for Transport, 'National Travel Survey: 2019'.

There are a number of reasons for the disparity in the use of cars and public transport in the capital and other English cities. As the Centre for Cities notes, London is more densely populated than other city regions, which increases demand for public transport and makes major transport projects such as tram or underground systems more viable.⁶ This in turn means that Transport for London receives a much larger proportion of revenue from fares.

Transport spending per capita remains significantly higher in Greater London than in other parts of England. Quantifying the disparity in the level of funding is difficult, as there is limited subnational data available at a city region level (a problem identified in the levelling up white paper). On a larger regional level, spending on transport in Greater London in 2019/20 was £906 per head, compared with £505 in the West Midlands, £451 in the North West, and £326 in the North East.

Figure 4 Transport spending per head in each English region, 2019/20



Source: Institute for Government analysis of HM Treasury, Country and regional analysis, 2020. Notes: Identifiable expenditure only.

The mayor of London also has greater control over the transport system than those in other cities. Transport for London controls the London Underground, Docklands Light Railway, buses, trams and regulates taxis. It also controls the key route network, the most important arterial routes in the capital. By contrast, the bus systems in other city regions have to date been deregulated with the result that the mayors have not been able to integrate bus provision into their broader transport and spatial plans.⁷

England's city regions are taking steps to better integrate their transport systems but they have more limited powers and funding than London

With the exception of North of Tyne, England's devolved mayoral authorities outside the capital already operate their regional transport systems. They have used their powers to improve the integration of the public transport system to encourage usage; for example, by introducing a unified ticketing system across different modes of transport.⁸

Some mayoral combined authorities are also taking steps to re-regulate the regional bus system, so that they can play a greater role in determining the routes provided. The Bus Services Act 2017 gives mayoral combined authorities outside London the ability to franchise the regional bus system to bring it under their control. Greater Manchester and Liverpool City Region have so far decided to exercise these powers.

Franchising requires the mayoral authorities to take on the revenue risk of the bus service. Greater Manchester has elected to borrow against future receipts from the mayoral precept (an additional levy added to council tax collected by the mayor) to fund its franchising scheme.⁹ But not all mayoral combined authorities are currently willing to take this risk given the pressure on public finances and uncertainties regarding future travel demand following the coronavirus pandemic. A representative of one mayoral transport body told us they were waiting to see the outcome of franchising in Greater Manchester before deciding whether to start the process in their region.

City regions outside London should be given greater flexibility over funding

More flexible devolved transport funding for city regions outside London would make it easier for them to improve the quality of regional public transport and reduce the volume of journeys taken by car. At present, London retains far greater flexibility over how it spends its money on transport. In the capital, transport infrastructure spending is funded primarily by retained business rates and revenue contributions rather than central government grants. The Greater London Authority has also raised funds for capital investment from a community infrastructure levy charged on the development of new floor space in properties above a certain size. Transport for London is also able to raise funds from the increase in land value arising from its transport investments capital investment.

By contrast, mayoral combined authorities in other city regions are much more dependent on government funding for capital investment, for which they have to bid on a rolling five-year basis, meaning there is tighter central control over their spending decisions. Unlike London, other devolved mayoral authorities are not currently able to capture land value from transport investments.¹⁰

Funding for capital investment in transport outside London is provided principally through the City Region Sustainable Transport Settlement (CRSTS), which runs from 2022/23 to 2026/27. This follows on from the Transforming Cities Fund, which was launched in 2017. The CRSTS is a multi-year transport budget for investments in schemes to improve the quality and integration of the regional transport systems. However, it does not constitute a single block-grant for transport, and mayoral authorities have to specify in detail how the funding will be allocated. Not all transport spending is consolidated in the CRSTS – city regions receive additional funding for buses and cycling, and can also apply for grant funding for major road projects and other ad hoc initiatives. To take one example, Transport for Greater Manchester received £3 million from the Clean Air Early Measures Fund to increase electric vehicle charging points.¹¹

The government has said it intends to further consolidate and devolve more control over regional travel budgets over the course of several multi-year funding settlements. It has acknowledged that greater transport devolution is likely to lead to a more efficient allocation of resources and a better integrated public transport system. The Department for Transport has stated that it was aiming to move to a 'London model' of transport that would give it "much more flexibility to decide and develop long-term strategies that integrate all their local transport priorities".¹²

But despite these commitments, the direction of travel in recent years has not been towards greater budgetary autonomy for city regions. The current funding arrangements through the CRSTS gives city regions less flexibility in how the budget is invested than the Transforming Cities Fund that preceded it. The latter was allocated to city regions on a per capita basis without a formal bidding process. Ministers emphasised their 'hands-off approach' to the Transforming Cities Fund.

By contrast, city regions have to specify in much more detail how funds from the CRSTS are to be spent. Officials noted that central government has involved itself much more closely in how the current budget settlement has been used. For example, in evidence to the levelling up select committee, West Yorkshire's mayor, Tracy Brabin, described how central government sought to dictate how individual spending lines in the CRSTS were allocated, with "No.10 advisers coming 200 miles from London to my office to tell me whether we could have a grass roof on a bus station".¹³

The National Infrastructure Commission has noted that the fragmented nature of the funding arrangements for city regions undermines efficient planning and negatively affects the delivery of transport and other infrastructure.¹⁴ The government should therefore follow through on its commitment to devolve transport funding further. This would allow city regions outside London to take a more systemic, long-term approach to transport planning. This in turn would make it easier to develop a broader spatial plan that prioritised public transport and active travel over car journeys.

Regional spatial planning can support active travel but needs the support of local authorities

Mayors have the potential to play a key role in promoting active travel – cycling and walking – at a regional level as an alternative to car journeys. England’s city regions have a long way to go to meet the target that 50% of all journeys will be walked or cycled by 2030. In 2019, walking accounted for around a third of all journeys in urban areas and cycling just over 2%. By contrast, in the same year in the Netherlands, cycling and walking accounted for 52% of journeys in urban areas (with cycling accounting for just under a third).¹⁵

Devolved mayoral authorities can promote active travel by designing regional cycling and walking infrastructure that runs across several local authorities and is aligned with commuter routes. For example, Greater Manchester has overseen the development of the Bee Network, which it intends to be the longest planned walking and cycling network in the UK. The network will connect every neighbourhood of Greater Manchester and provide “continuous, high-quality provision for walking and cycling” across the whole region.¹⁶ South Yorkshire has appointed an active travel commissioner and developed an interactive active travel map, which asked people to suggest where investment in walking and cycling infrastructure should take place.

Bringing spatial and transport planning together through a devolved mayoral authority makes it easier to prioritise development that does not rely on car use and instead incentivise active travel. Liverpool City Region is developing its spatial development strategy in parallel with a new iteration of its local travel plan. It argues that this provides a unique opportunity to align land use planning and transport planning policies to reduce the dominance of the private car and “support a shift to clean forms of mass transit, cycling and walking”.¹⁷ Likewise, Greater Manchester’s transport plan to 2040 notes the importance of integration of transport with spatial planning, which “is critical in influencing people’s travel choices”.¹⁸

City regions outside London do not have highway management powers over the key route network, as Transport for London does in the capital. Responsibility for this network in other city regions is shared between the mayoral combined authority and the local authority. In some cases, this has meant that neither the mayor nor the local authority has been able to make strategic investment decisions on new infrastructure, including the expansion of cycling and walking routes. Following a consultation, the government has decided to give mayors the power to direct local authorities to take forward measures on the key route network. They will also be able to add roads to the key route network, in consultation with local authorities.¹⁹

Even with these additional powers, the success of active travel schemes will require close co-operation between the mayoral office and local authorities within the region. First, because cycle and walking routes often run on quieter roads, which remain under the control of the local authority. In some cases, local authorities have blocked cycle infrastructure schemes, even when they are intended to be part of a broader network.²⁰ Most responses to the government’s consultation from mayoral combined

authorities and constituent local authorities favoured a joint approach to managing the key route network. Second, changes to road infrastructure to incentivise walking and cycling can be controversial and need to be undertaken in consultation with local residents, which may be best handled by the local authority.

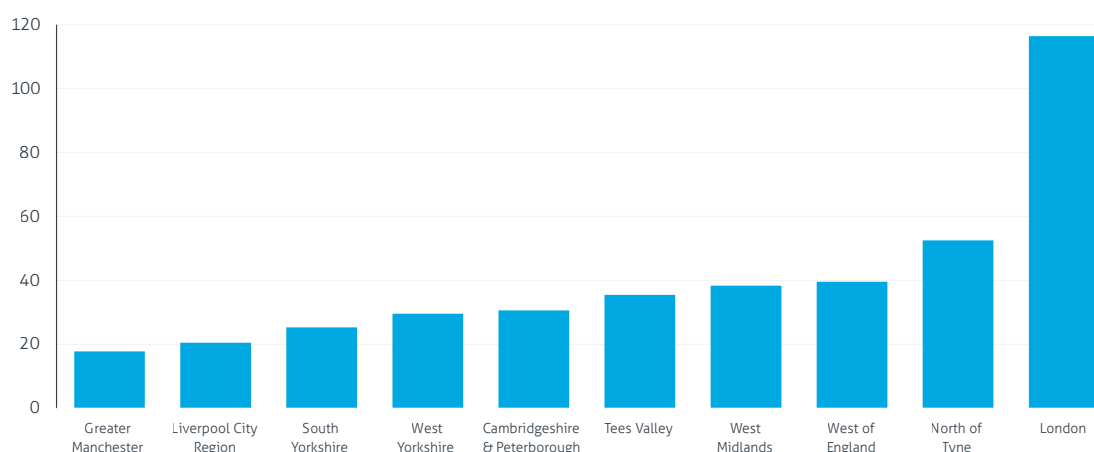
Mayors could play an important role in boosting electric vehicle charging infrastructure

Achieving the government’s goals for the electrification of transport will require a rapid acceleration in the roll-out of charging infrastructure. While many people will be able to charge their vehicles at home, a substantial number – particularly in cities – won’t be able to. The government’s electric vehicle infrastructure strategy projects that by 2030, between 280,000 and 720,000 public charging points will be required.

The strategy suggests that where combined authorities exist, they should take the lead in setting the electric vehicle (EV) charging point strategy for the region.²¹ This should allow for a more strategic approach to planning the roll-out and acknowledges that most car journeys in city regions cross local authority boundaries. In the West Midlands, for example, 57% of all journeys by residents of the metropolitan area involved crossing a district boundary.²²

However, the EV charging point roll-out in city regions outside London has so far lagged behind the UK average. London has 116 charge points per 100,000 residents, while across the UK as a whole it is 48. But in other city regions the average is just 30 per 100,000 residents, and Greater Manchester has just 18 (although there is significant variation between constituent local authorities).

Figure 5 **EV charging points in devolved mayoral authorities**



Source: Institute for Government analysis of Department for Transport, 'Electric vehicle charging device statistics', July 2022.

Mayors face several barriers to accelerating the roll-out of charging points. The biggest one is that the charge point installers have so far focused on the wealthiest areas where demand tends to be highest because people are most likely to be able to afford the large upfront costs of switching to an EV. Financing charge points in areas of lower immediate demand has proved more difficult.

In addition, there are barriers around the electricity grid. The Department for Transport has acknowledged that the capacity and reliability of the transmission and distribution network are currently a constraint in many parts of the UK. A lack of investment has led to network operators charging high costs for grid connections: a survey by the Office for Zero Emission Vehicles has found that grid connection costs are the second most-quoted barrier to the deployment of public charging points.²³

Mayors won't be able to address these challenges alone. For instance, it is national government that controls the main levers around taxes and subsidies that could make installing charging infrastructure a more attractive proposition outside of the wealthiest areas. Nevertheless, mayors can still use their convening power to make installing charge points as easy as possible, and draw on specialist expertise to fill knowledge and technical gaps in their constituent local authorities. For example, the West Midlands has proposed a regional steering group for EV roll-out that shares learning and information from local authority activities and "facilitates the identification of gaps in EV charging provision".²⁴ The mayor's office has also provided funding for the UK's first dedicated training centre for EV mechanics in Wolverhampton.

The government should consider making distributed network operators accountable to devolved mayoral authorities

A focus on regional planning could help to ensure that the EV roll-out is matched by sufficient investment in energy generation and regional transmission networks. Regional energy planning is also important for the development of capacity to support the mass deployment of heat pumps for heating buildings. The electrification of heating for buildings, like transport, will require a large investment in the electricity distribution network.

Some devolved mayoral authorities are already working closely with their distribution network operators on strategic energy planning.* Greater Manchester Combined Authority has co-ordinated the development of local area energy plans for its 10 constituent councils, which it has consolidated into a region-wide plan that has been shared with the local distribution network operator, Electricity North West, and Ofgem, the national regulator. Local area energy plans take a systems approach to future energy management. West Midlands has likewise developed a regional energy strategy that looked at energy demand patterns and opportunities for local energy generation and storage.

Major additional investment in distribution capacity will be required in the coming years as vehicles and heating are electrified. As the West Midlands notes in its regional energy plan, these investment decisions will have "a significant impact on the viability of the local industrial strategy, future economic prosperity of the region, and domestic energy bills".²⁵ It is therefore important to ensure that regional energy systems are aligned with the region's industrial, housing and transport strategies. To achieve this, the government could consider making distribution network operators accountable to devolved mayoral authorities.

* Distribution network operators own and operate the power lines and infrastructure that connects the electricity network to homes and businesses.

Homes and buildings

The UK government estimates that heating homes and buildings accounts for 23% of the UK's greenhouse gas emissions (17% from residential homes, 4% from commercial properties and 2% from public buildings).¹ Cutting these emissions will require both improving insulation and switching to low-carbon heating sources. The scale, cost, disruption and technological uncertainty involved in making these changes mean it will be one of the most challenging elements of reaching net zero.

At present, devolved mayoral authorities are playing a limited role in decarbonising buildings. Unlike local councils they do not control large housing stocks and are not responsible for enforcing building regulations.

They have the potential to play a much bigger role. By co-ordinating and aggregating demand at a regional scale, they can encourage greater private investment into the sector. The government should support these efforts by devolving multi-year funding for retrofit to devolved mayoral authorities.

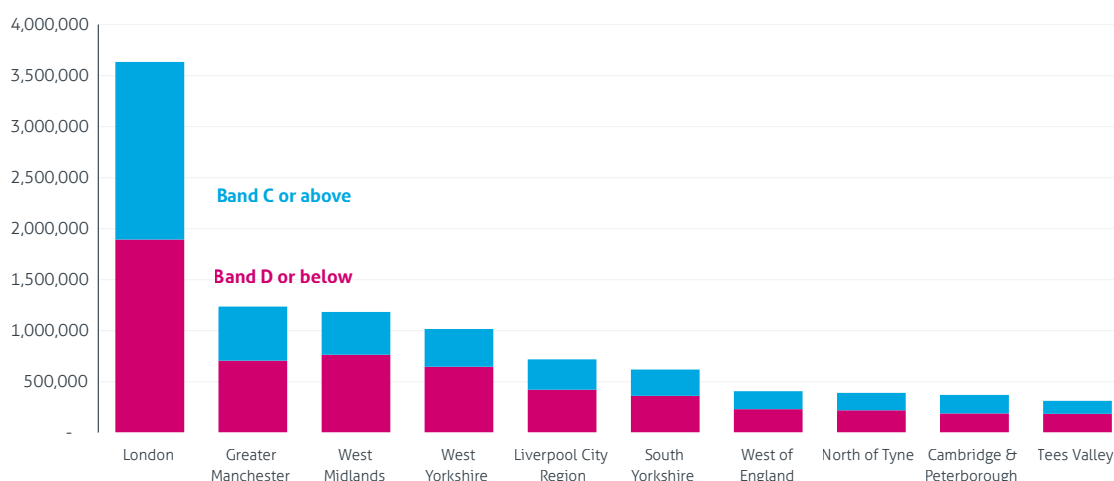
Many buildings in city regions are poorly insulated and the vast majority are heated by fossil fuels

The government's *Heat and Buildings Strategy* includes a target to end the sale of gas boilers by 2035, accelerate innovation and bring down costs in alternative heating sources like heat pumps and accelerate the roll-out of energy efficiency measures. It aims to upgrade all fuel-poor homes to energy performance certificate (EPC) Band C or higher by 2030 (the EPC banding scale runs from A–G), and as many homes as possible to EPC Band C or higher by 2035.²

The scale of the challenge is huge. Ed Cox, director of strategy and net zero at the West Midlands Combined Authority, has described building decarbonisation as “one of the, if not *the* biggest challenge that we face as a region or as a country”.³ There are 25 million dwellings in England, of which 58%, or 14.5 million currently have an energy efficiency of D or below.⁴ Shifting to low-carbon heat generation will be even more demanding. In 2018, 86% of dwellings used natural gas boilers for heating, while heat pumps remain a cottage industry.⁵

Areas with directly elected mayors account for around 40% of the total dwellings in England, or around 10 million properties. As of 2018, 57% of these dwellings had an EPC rating of D or below. There is significant variation in the design and age of the housing stock across the country. Publicly funded retrofit initiatives are therefore likely to be more effective if areas are able to adopt localised strategies that fit the profile of their local housing stock.

Figure 6 **Housing stock by energy efficiency in devolved mayoral authorities**



Source: Institute for Government analysis of Office for National Statistics, 'Energy efficiency of housing, England and Wales, local authority districts', March 2021. Notes: Bands relate to rating of energy performance certificates.

Some mayors are seeking to take a regional approach to retrofit to try to address problems with the public funding model

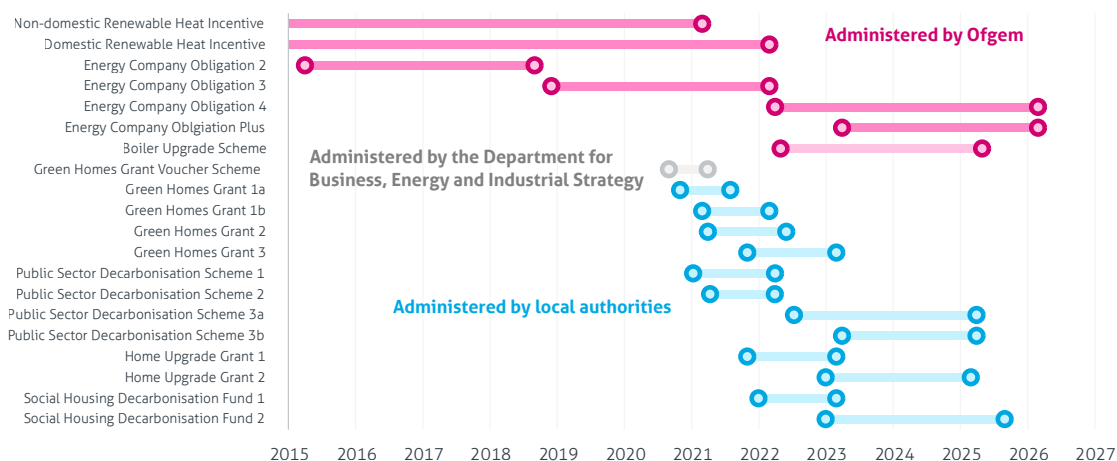
A large proportion of the government funding for retrofit has been delivered through local authorities, through a variety of schemes to insulate the homes of low-income households and public buildings. The aim has been to use this funding to create a pipeline of work that will encourage suppliers to invest in the sector, expand capacity and lower costs.

However, progress on retrofit has also been hampered by the fragmented and short-term funding model. Since 2020, there have been at least 12 different grants that local authorities could apply for to support building energy efficiency measures. Many have been allocated through competitive bidding and have run over short delivery cycles. This has strained local authority capacity and made it difficult to take a strategic approach to retrofitting based on the specific needs of the local housing stock.

Short-term funding and inconsistent policy making have discouraged contractors from expanding capacity and investing in skills, with the result that the sector currently suffers from major supply chain constraints. In its 2020 report to parliament, the Climate Change Committee warned that progress on decarbonising buildings since 2015 had been “negligible”.⁶

Some mayoral authorities are already trying to adopt a regional approach to retrofit to mitigate the impact of stop-start policy making at the centre and using their scale and convening power to encourage the expansion of local supply chains.

Figure 7 Government schemes targeted at decarbonising buildings and heat



Source: Institute for Government analysis of government energy efficiency schemes for buildings. Notes: Details on the design of the schemes is set out in Annex 1.

In some regions, mayoral combined authorities have led a consortium of their constituent local authorities to make a single bid for public funding. Greater Manchester made a single application for the 10 councils within the city region for the Green Homes Grant, the Public Sector Decarbonisation Scheme, and the Social Housing Decarbonisation Fund. Likewise, Liverpool City Region is the delivery lead for the Home Upgrade Grant and Green Homes Grant 3, which provides funding to local authorities to help them upgrade energy inefficient homes of low-income households.*

Bidding as part of a consortium can reduce the administrative burden of the grant-bidding process, which is a significant strain on local council resources. As one official told us, local authorities “are too busy delivering the current grant and applying for the next one to think strategically”. Consortium partners can also take advantage of the larger scale of the investment to negotiate more advantageous terms with contractors. They also reduce the risk that funds will be underspent due to capacity constraints, as funding can be moved between local authorities.

Several city regions have collected data on regional housing stock, enabling more effective targeting of retrofitting initiatives. For example, the North of Tyne Combined Authority has formed a partnership with the Energy Saving Trust to build a housing stock database, enabling it to model retrofitting scenarios and understand the scale of investment required.⁷ As part of the joint working on local area energy plans for its constituent authorities, Greater Manchester has also built up a profile of the regional housing stock, meaning that it can quickly build a business case and effective bid for new government funding blocks for retrofit as they become available. West Midlands has conducted a housing stock analysis across its seven constituent authorities to identify properties with low energy efficiency ratings.

* Details of all the government retrofit schemes are set out in Annex 1.

Through such approaches, mayors can provide the local data to ensure that decarbonisation schemes are targeted effectively. For example, Ofgem, the UK energy regulator, relies on referrals and data from local authorities to help identify eligible households for support from the Energy Company Obligation (ECO). ECO requires energy suppliers to install energy efficiency measures in the least efficient housing stock occupied by low-income and vulnerable households. The scheme is funded by a tariff on household energy bills. However, Ofgem does not always have the necessary data to target households for support, particularly in cases where they are not in receipt of one of the qualifying benefits.⁸

The government should devolve retrofit funds to mayoral authorities

The UK lags far behind many European countries in the pace and scale of investment in retrofit. Reversing a decade of failure in decarbonising buildings requires an overhaul of policy at the centre to provide a stable, long-term policy and funding framework, alongside a range of other measures such as tax incentives and amendments to building regulations.⁹

In Germany and France, which have much better records on retrofit, regional tiers of government have also played a much bigger role than has been the case in the UK.¹⁰ Alongside the reform of the central policy framework, the government should also support existing efforts by mayoral authorities to co-ordinate retrofit initiatives by devolving a multi-year funding block for retrofit to city regions. By aggregating public retrofit investment at a regional scale, devolved mayoral authorities would be able to provide confidence to the market that there is a long-term, stable pipeline of work, which would encourage local suppliers to invest in capacity. Retrofit devolution would help the government to move away from the current piecemeal funding approach, where grants are made available only for specific types of housing or households, which increases the cost of delivery.

As discussed in more depth in the next section, longer-term investment would also make it easier for mayoral authorities to engage with businesses and education providers to provide the necessary training provision to expand supply chains, using their control of the adult education budget. This is more easily done at a regional than national level, given that many of the contractors are small in scale. In the West Midlands, for example, 80% of retrofit companies are small or medium-sized enterprises. The West Midlands Combined Authority argues that a multi-year funding settlement rather than “stop-start competitions for limited pots” would make it easier to crowd-in private investment and “unlock local supply chains and training programmes”.¹¹

The government’s current position on retrofit devolution lacks urgency. In recent devolution deals – for example, the one concluded with the East Midlands in August 2022 – the government stated that it had a commitment to “explore the potential benefits of and design options for a place-based approach to delivering retrofit measures”. The government should take a more ambitious approach in light of the energy crisis, and given that the current funding system is failing to deliver retrofit

at the pace and scale required. It should use the 'trailblazer' deals it is currently negotiating with West Midlands and Greater Manchester to pilot a devolved retrofit fund that would operate on a regional basis over several years.

Local authorities in devolved mayoral authorities should still retain an important role in delivering retrofit schemes as they manage large housing stocks and are responsible for enforcing building regulations. They may also be better placed to engage with housing associations and local residents. As one local council official noted: "You want the benefit of both worlds – the benefit of scale, size, buying power, and shared knowledge and capacity, but in a way that can be flexed to support local supply chains and managed by local communities."

All devolved mayoral authorities should follow the lead of Greater Manchester in establishing a 'one-stop shop' for advice on retrofit for residents

Devolved mayoral authorities can also play an important role in supporting private homeowners and landlords who are able to pay for retrofit themselves to invest in home energy efficiency measures. Many officials working on retrofit noted that a lack of information and consumer confidence is often as significant a constraint on investment as price. As analysis published by Greater Manchester noted, consumers face a "plethora of inaccurate information on the efficacy and cost of renewable heating", which has deterred those able to pay for retrofit themselves from doing so.¹²

Some devolved mayoral authorities have established retrofit hubs that can act as a single point of information for residents on the retrofit process and link them to trusted contractors to deliver the work. For example, Greater Manchester has set up 'Your Home Better' to explain the process of installing retrofit and recommend approved suppliers. In London, 'Energy Advice London' provides free local energy advice on saving energy and information about financial support to make energy saving improvements.

All devolved mayoral authorities should follow this example and work with their constituent local authorities to develop a single source of advice on retrofit and information on trusted contractors. A 'one-stop shop' of this kind operated at a regional level would help to aggregate demand to draw in new firms. It could also be used to provide financial products to consumers to manage the upfront cost of retrofit.

Industrial strategy and 'green skills'

The UK net zero strategy is not only a blueprint to cut greenhouse gas emissions, but also the basis for an industrial strategy that seeks to make the UK a leader in low-carbon technology. Devolved mayoral authorities have an important role in regional economic planning. They can help to align the net zero strategy with levelling up objectives so that, as the net zero strategy puts it, "green and growth go hand in hand".¹

Given this, economic planning for net zero needs to take place in co-ordination with local leaders. As the 2022 levelling up white paper noted, the economic risks and benefits associated with the green transition are not equally distributed across the country.² Many of the regions that have the potential to benefit the most from new green industries are also the ones that are at greatest risk from the green transition because of a high concentration of carbon-intensive industries.³

Mayors are already seeking to develop local industrial strategies focused on low-carbon growth

Mayors lead the development of local industrial strategies in their areas, in co-ordination with local enterprise partnerships and central government. All the mayoral combined authorities outside London control a long-term non-ringfenced investment fund from the government that can be used for infrastructure and regeneration. They also co-ordinate other funding pots to support economic development, such as the UK Shared Prosperity Fund, which from April 2022 has started to replace EU structural funding.

Many of the mayors have already focused their local industrial strategies on developing low-carbon technologies. West Yorkshire Combined Authority states that its ambition to become a net zero carbon region by 2038 is "embedded throughout the local industrial strategy".⁴ Tees Valley has used its local industrial strategy to set an overarching ambition to become "a leading location to invest for clean energy, low carbon, hydrogen and environmentally sustainable industrial growth".⁵ The mayor has formed the South Tees Development Corporation to redevelop the Teesworks industrial zone, which will be a centre for commercial carbon capture and storage. The mayoral combined authority has used a large share of its investment fund to acquire and redevelop the Teesworks site.

The North of Tyne mayor Jamie Driscoll's five-point development plan aims to achieve "zero carbon, zero poverty".⁶ The North of Tyne has committed 40% of its mayoral investment fund in 2020–23 to green initiatives, creating a Green New Deal Fund to invest in energy efficiency and renewables, and an Offshore Fund to ensure that the port infrastructure in the region is capable of hosting large-scale manufacturing and installation of wind turbines. The combined authority has worked with the national power grid to remove cables over the Tyne, allowing larger turbines to be transported down the river.

To support these efforts, the government should consider devolving some of the public funding for industrial decarbonisation to mayoral combined authorities. The government's *Industrial Decarbonisation Strategy*, published in March 2021, notes that regional government has an important role in supporting the delivery of industrial decarbonisation, as they are the "most informed about local skills and infrastructure needs". However, much of the funding for industrial decarbonisation is currently managed centrally. Officials in mayoral combined authorities warned us that the current schemes, such as the Industrial Energy Transformation Fund, are able to support large firms of national significance, such as steel manufacturers, but smaller companies and local supply chains find it harder to access support. Devolved mayoral authorities, which are better placed to engage with small and medium-sized enterprises, may be able to target some of these funds.

The government should also amend the criteria for the long-term mayoral investment funds to specify that spending must be consistent with UK and regional emissions targets. At present, the government conducts five-yearly 'gateway reviews' to assess the impact of mayoral investments on regional economic growth, but does not consider whether the spending supports low-carbon growth. Other funding for economic development, such as the UK Shared Prosperity Fund, already includes a requirement to demonstrate a contribution to net zero objectives.

Mayoral combined authorities play an important role in ensuring there is adequate training to meet a low-carbon industrial strategy

All of the devolved mayoral authorities are also responsible for spending the adult education budget in their regions, and therefore will play an important role in ensuring the labour force has the necessary skills to respond to the changing structure of the UK economy.

The UK government's Green Jobs Taskforce estimates that one in 10 jobs in the UK (around 3.15 million workers) will require new skills to meet the demands of the green economy, while a further one in 10 may see reduced demand for their current skills set.⁷

The Local Government Association estimates that by 2030 there will be almost 700,000 jobs directly linked to the low-carbon economy, up from 185,000 in 2018.⁸ Four fifths of those who will be in work in 2030 are already part of the workforce. So alongside ensuring that secondary and tertiary education is appropriately designed for the next generation of workers, the government must also ensure that adult education programmes can enable existing workers to retrain to meet the demands of a green economy.

Mayors are in principle able to shape training provision in line with the needs of the local economy and respond to emerging workforce needs. However, they must guarantee provision of statutory entitlements determined by the Department for Education (DfE) – for example, provision of English and maths courses for individuals who have not previously attained a GCSE grade 4. A large share of devolved spending on adult education is directed to meeting statutory entitlements set on a national basis.

In 2020/21, the DfE allocated £3.3 billion to adult skills and training, of which £730m, or 22%, was spent by mayors. In addition, mayors have access to a number of grants to invest in skills and training programmes. The DfE has made £150m available over three years for 'skills bootcamps' – short courses of up to 16 weeks that are intended to build up sector-specific skills, including skills for the green economy. The UK Shared Prosperity Fund can be used to finance programmes that help workers to upskill and retrain and support areas to address local skills needs.

Mayors currently have no formal powers relating to schools or 16–19 education or apprenticeships, which are funded by an employer levy. Some mayors have provided resources to support school advisory services, including in relation to employment in the green sector. Andy Burnham, the Greater Manchester metro mayor, has called for the full devolution of apprenticeships, technical education and careers services so that the combined authority can build a “coherent skills system” for the local area.⁹

The government could make greater use of mayors to understand emerging skills gaps

Devolved mayoral authorities can help the government to understand existing and emerging skills gaps associated with the green transition. Understanding these skills gaps will be vital to ensure the labour force is available to deliver on the government's ambitious goals.¹⁰ But, the Climate Change Committee has noted that the government's data on skills is generally patchy, with significant gaps on levels of employment in certain key growth occupations, such as home retrofit co-ordinators, which limit officials' ability to effectively track skills requirements.¹¹

Devolved mayoral authorities can help to address these data shortages, provided there is sufficient resourcing and adequate mechanisms for effective information exchange with central government. Several devolved mayoral authorities have conducted labour market analysis to understand the projected demand for green skills in their regions. For example, the West of England looked at the projected growth in sectoral demand for skills relating to low-carbon energy, retrofit and building decarbonisation, alternative fuels, low-carbon services, and low-carbon transport.¹² Its report found that while potential growth in green jobs was high, current training provision in further education colleges did not provide courses that directly targeted 'green jobs'.¹³

At present, the government is not making best use of the resources and insights that devolved mayoral authorities have regarding their regional labour forces. A recent paper by the DfE's Skills and Productivity Board on opportunities and challenges of improving labour market information does not acknowledge the role that mayors can play in collecting labour market information.¹⁴ Mayors also did not participate in the Green Jobs Taskforce, established in late 2020, the role of which was to work with industry and other stakeholders to anticipate the emerging skills requirements of the green economy and ensure coherence between the government's net zero agenda and its skills policies. The taskforce's report made no reference to mayors, despite the fact they have an important role in delivering adult skills.

The government's levelling up white paper identified a broader need to improve information sharing between subnational devolved government and Whitehall. It made several proposals to address this, including the creation of an Office for Local Government to improve the evidence base for regional government, and the appointment of levelling up directors – senior civil servants to act as a bridge between their region and the centre. The government should ensure these institutional changes help to strengthen data exchange on the regional economic impact of net zero. In addition, one of the functions of the Net Zero Delivery Board, recommended at the start of this paper, would be to ensure that mayors could relay information on the impact of net zero policies on regional economic and labour trends.

Spending by devolved mayoral authorities on 'green skills' provision has so far been limited

Mayors are working with businesses to support training in skills relating to the green economy, and they are undertaking research to anticipate their regions' labour force needs to deliver net zero.

Despite the huge potential growth in 'green jobs', spending by mayoral devolved authorities on training on green skills, such as installing heat pumps or EV charging points, has so far been limited. For example, a review of green skills adult education provision prepared for the Greater London Authority in January 2022 found that only a small number of learners funded by the adult education budget are taking courses specifically relating to green skills. It noted that just 60 learners took a diploma in refrigeration, air conditioning and heat pumps in 2019/20.¹⁵ Greater Manchester has allocated just under a fifth of the £7m in central government funding it received for skills bootcamps in 2022/23 for courses to support the green economy, for roles such as retrofit, grid engineering, and electric vehicle maintenance and repair.¹⁶ North of Tyne has allocated 10% of its adult education budget and almost 20% of the skills bootcamp funding to support green skills with a range of employer- and training provider-led projects in collaboration with the North East local enterprise partnership.

Skill devolution has to be supported by a credible, long-term policy framework at a national level

These findings underline the need for the government to set a credible net zero policy framework, supported by long-term funding commitments. At present, there remains a lot of uncertainty among training providers, companies and employees regarding the green transition because the government has yet to make key policy decisions; for example, on the role of hydrogen in providing heating for homes.

The Institute for Government has previously identified frequent policy churn as one of the biggest barriers to an orderly and cost-effective green transition and the number one complaint about the government's approach to climate change among businesses.¹⁷ It is also a major concern among regional and local leaders.

Officials working in the devolved skills sector told us they are currently holding back from expanding training provision further because there is limited demand and learners are unsure about future employment prospects. For example, an analysis of the green jobs market by Greater Manchester notes that the stop-start nature of building decarbonisation initiatives has created a lack of confidence among employers regarding the scale of future demand. It concludes that “until there is a critical mass of pipeline in the market, employers will not respond with investing in skills”.¹⁸

This view was echoed by one official in a devolved mayoral authority who noted that building firms had had their “fingers burnt” by a lack of consistency over retrofit regulations and funding, and so were reluctant to invest in expanding capacity and skills in this area. Greater Manchester has found that many heating engineers are currently reluctant to undertake training on a specific heating technology because it is still unclear what future regulations will be applied.¹⁹

Devolved mayoral authorities are good at engaging with employers to identify and respond to skills gaps. But as one skills expert noted, “the skills system cannot kick into gear until it is clear what we should train people in”. The government therefore needs to be as consistent and clear as possible in its net zero policy, allowing for the fact that new technologies will continue to emerge.

Conclusion

There is now a cross-party consensus that strengthening devolved government is key to empowering England's regions, raising productivity and addressing regional inequalities. The government has made deepening and extending devolution across England one of the 12 missions to 'level up' the country by 2030 and it has stated that devolution is "critical" to delivering on all of the missions.¹ Labour leader Keir Starmer has said a future Labour government would "spread control out of Westminster" and devolve further powers to regional leaders to support growth.²

These strengthened city regions will also need to play a critical role in the other long-term transition the UK is undertaking: the shift towards net zero. Indeed, the two areas are deeply linked. Green jobs and industries are set to become major areas of investment in the former industrial heartlands, often with mayors working with and supporting innovative UK businesses.

While mayoral devolved authorities have the capacity and scale to co-ordinate and drive the green transition at the local level, currently they are hampered in their ability to play this role. They have little clarity about long-term funding in key areas like housing and transport, while stop-start policy making in Whitehall has undermined consumer confidence and business investment. To date the UK government's approach to net zero has been too top-down, without a sufficient role for regional and local leaders.

The government has the opportunity to address this when it updates the UK's net zero strategy in March. The new plan should set out a different approach, drawing on the strengths and expertise of local leaders and providing stable long-term funding. This would allow city regions to become trailblazers in areas such as home insulation and active travel, providing a path for the rest of the country to follow.

Alongside additional funding and responsibility, city regions will need to boost their ability to deliver complex programmes. Currently capacity across mayoral combined authorities is varied. With a bigger role, they should also be subject to stronger scrutiny, and made accountable for their regional greenhouse gas emissions.

The UK's city regions should be a major asset in the drive to reach net zero. By taking the steps we outline in this paper, the government could put them at the centre of its plans.

Annex 1:

Government building energy efficiency schemes

Scheme	Dates	Size	Details
Non-Domestic Renewable Heat Incentive	Nov 2011–March 2022	£5.6bn to 2022/23	Provided payments to businesses, public sector and non-profit organisations for 20 years that installed low-carbon heat generation. Organisations apply directly for the payments.
Domestic Renewable Heat Incentive	April 2014–March 2022	£810m to 2022/23	Provided direct payments to homeowners and landlords for seven years who installed heat pumps, biomass boilers and solar thermal panels. Households apply direct for the payments.
Energy Company Obligation	Jan 2013–March 2026 (various phases)	£6.1bn to 2021/22	Energy suppliers provide energy efficiency and low-carbon heating measures to low-income, fuel-poor and vulnerable households, funded by a levy on energy bills. The first iteration of the scheme began in January 2013. Eligible residents can apply to energy suppliers and local authorities can refer households.
Boiler Upgrade Scheme	May 2022–May 2025	£450m	Grant scheme for homeowners and small businesses to replace fossil fuel heating systems with a heat pump or biomass boiler. Eligible property owners apply directly for the grant.

Green Homes Grant Voucher Scheme	Sept 2020–March 2021	£233m	Voucher scheme for homeowners covering part or all of the cost of energy efficiency improvements. Administered by BEIS.
Green Homes Grant Local Authority Delivery Phases 1a, 1b & 2	Nov 2020–June 2022	Phase 1a – £74m; Phase 1b – £126m; Phase 2 – £300m	Grant scheme for local authorities to improve the energy efficiency of the homes of low-income households.
Green Homes Grant Local Authority Delivery 3	Nov 2021–March 2023	£287m	Grant scheme for local authorities to improve the energy efficiency of gas-heated homes of low-income households.
Public Sector Decarbonisation Scheme	Jan 2021–March 2025	Phase 1 – £1bn; Phase 2 – £75m; Phase 3a & 3b – £1.425bn.	Grant scheme for public bodies for heat decarbonisation projects of non-domestic buildings, including, but not limited to, local authority buildings.
Home Upgrade Grant 1 & 2	Nov 2021–March 2025	Phase 1 – £218m; Phase 2 – £700m	Grant scheme for local authorities to improve the energy efficiency of homes of low-income households off the gas grid.
Social Housing Decarbonisation Fund 1 & 2	Jan 2023–Sept 2025	Phase 1 – £160m; Phase 2 – £800m	Grant scheme for local authorities to improve the energy efficiency of social homes.

References

Summary

- 1 Department for Business, Energy and Industrial Strategy, *2021 UK greenhouse gas emissions, provisional figures*, 31 March 2021, retrieved 16 December 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1064923/2021-provisional-emissions-statistics-report.pdf
- 2 Greater Manchester Combined Authority, 'Greater Manchester at risk of missing 2038 net zero target', 17 October 2022, retrieved 16 December 2022, www.greatermanchester-ca.gov.uk/news/greater-manchester-is-at-growing-risk-of-missing-its-2038-net-zero-target-without-a-major-change-in-government-direction-mayor-andy-burnham-will-tell-the-city-region-s-5th-annual-green-summit-today/#:~:text=Mayor%20of%20Greater%20Manchester%2C%20Andy,backing%20for%20our%202038%20target
- 3 Street A, 'Rishi Sunak must incentivize local leaders to go green', *Politico*, 8 November 2022, retrieved 16 December 2022, www.politico.eu/article/rishi-sunak-must-incentivize-local-leaders-to-go-green-cop27
- 4 HM Government, *Net Zero Strategy: Build Back Greener*, October 2021, retrieved 16 December 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf
- 5 Skidmore C, *Mission zero: Independent review of net zero*, Department for Business, Energy and Industrial Strategy, 13 January 2023, retrieved 18 January 2023, www.gov.uk/government/publications/review-of-net-zero
- 6 Sasse T, 'The government's net zero strategy: a good start but big gaps remain', blog, Institute for Government, 22 October 2021, retrieved 16 December 2022, www.instituteforgovernment.org.uk/blog/net-zero-strategy
- 7 Climate Change Committee, *Local authorities and the sixth carbon budget*, 9 December 2020, retrieved 16 December 2022, www.theccc.org.uk/publication/local-authorities-and-the-sixth-carbon-budget
- 8 Sasse T, Rutter J, Norris E and Shephard M, *Net Zero: How government can meet its climate change target*, Institute for Government, 2020, retrieved 16 December 2022, www.instituteforgovernment.org.uk/publication/report/net-zero-how-government-can-meet-its-climate-change-target
- 9 HM Treasury, *Autumn Statement 2022*, CP 751, November 2022, retrieved 16 December 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1118417/CCS1022065440-001_SECURE_HMT_Autumn_Statement_November_2022_Web_accessible__1_.pdf
- 10 Skidmore C, *Mission zero: Independent review of net zero*, Department for Business, Energy and Industrial Strategy, 13 January 2023, retrieved 18 January 2023, www.gov.uk/government/publications/review-of-net-zero
- 11 Hodgkin R and Sasse T, *Tackling the UK's energy efficiency problem: What the Truss government should learn from other countries*, Institute for Government, September 2022, retrieved 16 December 2022, www.instituteforgovernment.org.uk/publication/tackling-uk-energy-efficiency-problem
- 12 Department for Levelling Up, Housing and Communities, *East Midlands Devolution Deal*, Policy Paper, 30 August 2022, retrieved 16 December 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1123610/East_Midlands_Devolution_Deal_-_Signed.pdf
- 13 Sasse T, Rutter J, Norris E and Shephard M, *Net Zero: How government can meet its climate change target*, Institute for Government, 2020, retrieved 16 December 2022, www.instituteforgovernment.org.uk/publication/report/net-zero-how-government-can-meet-its-climate-change-target

Devolution in England and net zero

- 1 Pope T, Dalton G and Coggins M, *Subnational government in England: an international comparison*, Institute for Government, www.instituteforgovernment.org.uk/publications/subnational-government-england
- 2 Hall D and Paun A, 'Mayor of London and London Assembly', Institute for Government, 14 October 2022, retrieved 16 December 2022, www.instituteforgovernment.org.uk/explainers/london-assembly
- 3 Paun A, Nice A and Rycroft L, *How metro mayors can help to level up England*, Institute for Government, June 2022, retrieved 16 December 2022, www.instituteforgovernment.org.uk/publications/metro-mayors
- 4 HM Treasury, 'Speech: Chancellor on building a Northern Powerhouse', 14 May 2015, retrieved 16 December 2022, www.gov.uk/government/speeches/chancellor-on-building-a-northern-powerhouse

-
- 5 Department for Levelling Up, Housing and Communities, *Levelling up the United Kingdom*, Policy Paper, 2 February 2022, retrieved 16 December 2022 www.gov.uk/government/publications/levelling-up-the-united-kingdom
 - 6 Hall D and Paun A, 'Mayor of London and London Assembly', explainer, Institute for Government, 8 April 2021, retrieved 16 December 2022 www.instituteforgovernment.org.uk/article/explainer/mayor-london-and-london-assembly
 - 7 Paun A, Nice A and Rycroft L, *How metro mayors can help to level up England*, Institute for Government, June 2022, retrieved 16 December 2022, www.instituteforgovernment.org.uk/publications/metro-mayors

Transport

- 1 HM Government, *Net Zero Strategy: Build Back Greener*, October 2021, retrieved 16 December 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf
- 2 Department for Transport, *Decarbonising transport: A better, greener Britain*, 14 July 2021, retrieved 16 December 2022, www.gov.uk/government/publications/transport-decarbonisation-plan
- 3 Greater Manchester Combined Authority, *City Region Sustainable Transport Settlement, Prospectus*, September 2021, retrieved 16 December 2022, <https://democracy.greatermanchester-ca.gov.uk/documents/s16545/24a%20Prospectus%209%20Very%20Final%20003.pdf>
- 4 Department for Levelling Up, Housing and Communities, *Levelling up the United Kingdom*, Policy Paper, 2 February 2022, retrieved 16 December 2022 www.gov.uk/government/publications/levelling-up-the-united-kingdom
- 5 Pope T, Shearer E and Hourston P, *Levelling up and infrastructure policy: How connecting the UK's cities could be the key to boosting productivity*, Institute for Government, 15 July 2022, retrieved 16 December 2022, www.instituteforgovernment.org.uk/publication/levelling-up-infrastructure-policy
- 6 Rodrigues G and Breach A, *Measuring up: Comparing public transport in the UK and Europe's biggest cities*, Centre for Cities, November 2021, retrieved 16 December 2022, www.centreforcities.org/wp-content/uploads/2021/11/Measuring-Up-Comparing-Public-Transport-in-the-UK-and-Europes-Biggest-Cities.pdf
- 7 Jeffrey S, *Delivering change: Improving urban bus services*, Centre for Cities, November 2019, retrieved 16 December 2022, www.centreforcities.org/wp-content/uploads/2019/11/Improving-urban-bus-services.pdf
- 8 Liverpool City Region Combined Authority, 'Public transport users benefit as more tickets made available to buy online', 18 March 2021, retrieved 30 May 2022, www.liverpoolcityregion-ca.gov.uk/public-transport-users-benefit-as-more-tickets-made-available-to-buy-online
- 9 Greater Manchester Combined Authority, 'Greater Manchester leaders move to decision on bus franchising for the city-region', 12 March 2021, retrieved 16 December 2022, www.greatermanchester-ca.gov.uk/news/greater-manchester-leaders-move-to-decision-on-bus-franchising-for-the-city-region/
- 10 'Devolution and levelling up with Jamie Driscoll', event, Institute for Government, 25 May 2022, retrieved 16 December 2022, www.instituteforgovernment.org.uk/events/jamie-driscoll
- 11 Transport for Greater Manchester, *Our Five-year Transport Delivery Plan 2021-26*, January 2021, retrieved 16 December 2022, <https://tfgm.com/our-five-year-transport-delivery-plan>
- 12 Department for Transport, 'City-Region Sustainable Transport Settlements; guidance for mayoral combined authorities', 12 August 2021, retrieved 16 December 2022, www.gov.uk/government/publications/city-region-sustainable-transport-settlements-developing-proposals/city-region-sustainable-transport-settlements-guidance-for-mayoral-combined-authorities
- 13 Levelling Up, Housing and Communities Committee, *Oral Evidence: Funding for Levelling Up*, HC 744, 12 December 2022, retrieved 16 December 2022, <https://committees.parliament.uk/oralevidence/12456/html>
- 14 National Infrastructure Commission, *National Infrastructure Assessment*, July 2018, retrieved 16 December 2022, https://nic.org.uk/app/uploads/CCS001_CCS0618917350-001_NIC-NIA_Accessible-1.pdf
- 15 Statistics Netherlands, 'Mobility, per person, personal characteristics, modes of transport and regions', retrieved 16 December 2022, <https://opendata.cbs.nl/#/CBS/nl/dataset/84709NED/table?ts=1672845572469>
- 16 Greater Manchester Combined Authority, *Greater Manchester's walking and cycling investment plan*, January 2020, retrieved 16 December 2022, https://assets.ctfassets.net/xfhv954w443t/1BtOhoofrD938D3JvvNSD/0035db2634e53de82329b5370b59e019/19-1950_Bee_Network_delivery_plan-style_-_website_version.pdf

-
- 17 Liverpool City Region Combined Authority, *Our 4th Local Transport Plan: Issues, challenges and goals*, April 2022, retrieved 16 December 2022, www.liverpoolcityregion-ca.gov.uk/wp-content/uploads/LTP4-VISION-090522.pdf
 - 18 Greater Manchester Combined Authority, *Greater Manchester Transport Strategy 2040*, January 2021, retrieved 16 December 2022, https://assets.ctfassets.net/nv7y93idf4jq/01xbKQONW0ZYLzYvcj1z7c/4b6804acd572f00d8d728194ef62bb89/Greater_Manchester_Transport_Strategy_2040_final.pdf
 - 19 Department for Transport, *Key Route Network Consultation Outcome*, 15 November 2022, retrieved 16 December 2022, www.gov.uk/government/consultations/key-route-networks-devolving-more-powers-and-responsibilities-for-locally-important-roads-to-metro-mayors-and-their-combined-authorities/outcome/key-route-network-consultation-on-powers-and-responsibilities-for-locally-important-roads#government-response
 - 20 Walker P, 'Kensington and Chelsea vetoes flagship road safety scheme', *The Guardian*, 14 June 2019, retrieved 16 December 2022, www.theguardian.com/world/2019/jun/14/kensington-and-chelsea-vetoes-flagship-road-safety-scheme
 - 21 HM Government, *Taking charge: the electric vehicle infrastructure strategy*, 25 March 2022, retrieved 16 December 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065576/taking-charge-the-electric-vehicle-infrastructure-strategy.pdf
 - 22 West Midlands Combined Authority, *Movement for Growth: The West Midlands Strategic Transport Plan*, retrieved 16 December 2022, www.tfwm.org.uk/media/3ukj3yw0/movement-for-growth.pdf
 - 23 HM Government, *Taking charge: the electric vehicle infrastructure strategy*, 25 March 2022, retrieved 16 December 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1065576/taking-charge-the-electric-vehicle-infrastructure-strategy.pdf
 - 24 West Midlands Combined Authority, *Electric vehicle and enabling energy infrastructure: A West Midlands approach*, 14 February 2020, retrieved 16 December 2022, <https://governance.wmca.org.uk/documents/s3953/Report.pdf>
 - 25 West Midlands Combined Authority, *A Regional Energy Strategy for the West Midlands*, November 2018, retrieved 16 December 2022, <https://governance.wmca.org.uk/documents/s2435/Appendix.pdf>

Homes and buildings

- 1 HM Government, *Heat and Buildings Strategy*, CP 388, October 2021, retrieved 16 December 2022, 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
- 2 HM Government, *The Clean Growth Strategy: Leading the way to a low carbon future*, October 2017, retrieved 16 December 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700496/clean-growth-strategy-correction-april-2018.pdf
- 3 Kenyon M, 'Energy devolution needed to hit net zero says West Midlands', *Local Government Chronicle*, 30 September 2021, retrieved 16 December 2022, www.lgcplus.com/politics/climate-change/energy-devolution-will-help-us-reach-net-zero-says-west-midlands-ca-30-09-2021
- 4 Office for National Statistics, 'Energy efficiency of housing, England and Wales, local authority districts,' March 2022, retrieved 16 December 2022, www.ons.gov.uk/peoplepopulationandcommunity/housing/datasets/energyefficiencyofhousingenglandandwaleslocalauthoritydistricts
- 5 Ministry of Housing, Communities and Local Government, *English Housing Survey 2018: energy report*, 9 July 2020, retrieved 16 December 2022, www.gov.uk/government/statistics/english-housing-survey-2018-energy-report
- 6 Climate Change Committee, *Reducing UK Emissions: 2020 Progress Report to Parliament*, 25 June 2020, retrieved 16 December 2022, www.theccc.org.uk/publication/reducing-uk-emissions-2020-progress-report-to-parliament/
- 7 North of Tyne Combined Authority, 'NTCA are working with Energy Saving Trust to develop a housing stock database', press release, 14 July 2021, retrieved 16 December 2022, www.northoftyne-ca.gov.uk/news/ntca-are-working-with-energy-saving-trust-to-develop-a-housing-stock-database-2
- 8 Department for Business, Energy and Industrial Strategy, *Energy Company Obligation 4*, July 2021, retrieved 16 December 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1010366/eco4-consultation.pdf

-
- 9 Hodgkin R and Sasse T, *Tackling the UK's energy efficiency problem: What the Truss government should learn from other countries*, Institute for Government, September 2022, retrieved 16 December 2022, www.instituteforgovernment.org.uk/publication/tackling-uk-energy-efficiency-problem
 - 10 *Ibid.*
 - 11 West Midlands Combined Authority, 'The West Midlands Trailblazer Devolution Deal', retrieved 16 December 2022, www.birmingham.gov.uk/download/downloads/id/24323/the_west_midlands_trailblazer_devolution_deal.pdf
 - 12 Greater Manchester Combined Authority, *retrofitGM: Accelerating the Renovation of Greater Manchester's Buildings*, January 2021, retrieved 16 December 2022, www.greatermanchester-ca.gov.uk/media/6018/retrofitgm.pdf

Industrial strategy and 'green skills'

- 1 HM Government, *Net Zero Strategy: Build Back Greener*, October 2021, retrieved 16 December 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf
- 2 Department for Levelling Up, Housing and Communities, *Levelling up the United Kingdom*, Policy Paper, 2 February 2022, retrieved 16 December 2022 www.gov.uk/government/publications/levelling-up-the-united-kingdom
- 3 Christie-Miller T and Luke A, *Greening the Giants*, Onward, March 2021, retrieved 16 December 2022, www.ukonward.com/wp-content/uploads/2021/03/Greening-the-Giants_-_Getting-to-Zero.pdf
- 4 West Yorkshire Combined Authority, 'Local Industrial Strategy', August 2020, retrieved 16 December 2022, www.westyorks-ca.gov.uk/projects/local-industrial-strategy
- 5 Tees Valley Combined Authority, *Tees Valley Local Industrial Strategy*, July 2019, retrieved 16 December 2022, <https://teesvalley-ca.gov.uk/wp-content/uploads/2019/07/10b-Appendix-2-Draft-Tees-Valley-Local-Industrial-Strategy.pdf>
- 6 North of Tyne Combined Authority, 'Zero carbon, Zero poverty: Our 5-point plan', retrieved 16 December 2022, www.northoftyne-ca.gov.uk/projects/zero-carbon-zero-poverty-our-5-point-plan
- 7 Department for Business, Energy and Industrial Strategy, *Report of the Green Jobs Taskforce*, July 2021, retrieved 16 December 2022, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1003570/gjtf-report.pdf
- 8 Local Government Association, *Local Green Jobs – Accelerating a Sustainable Economic Recovery*, June 2021, retrieved 16 December 2022, https://gemserv.com/wp-content/uploads/2021/06/Local-green-jobs-accelerating-a-sustainable-economic-recovery_final-1.pdf
- 9 Greater Manchester Combined Authority, 'Burnham calls for English regions to be set free to improve our city-region', press release, 14 December 2018, retrieved 16 December 2022, www.greatermanchester-ca.gov.uk/news/burnham-calls-for-english-regions-to-be-set-free-to-improve-our-city-region
- 10 Environmental Audit Committee, *Green Jobs and the Just Transition*, oral evidence, HC 903, 3 February 2021, retrieved 16 December 2022, <https://committees.parliament.uk/oralevidence/1663/pdf>
- 11 Climate Change Committee, *2022 Progress Report to Parliament*, 29 June 2022, retrieved 16 December 2022, www.theccc.org.uk/publication/2022-progress-report-to-parliament/
- 12 West of England Combined Authority, *Green Skills Market Analysis*, June 2021, retrieved 16 December 2022, www.westofengland-ca.gov.uk/wp-content/uploads/2021/07/WECA_Green-Jobs-and-Skills_Phase-2-Report_Final_01_06_2021.pdf
- 13 *Ibid.*
- 14 Department for Education, *Opportunities and challenges of improving labour market information*, Independent Report, 25 May 2022, retrieved 16 December 2022, www.gov.uk/government/publications/opportunities-and-challenges-of-improving-labour-market-information
- 15 Greater London Authority, *Green Skills Adult Education Provision in London*, January 2022, retrieved 16 December 2022, <https://data.london.gov.uk/dataset/green-skills-adult-education-provision-in-london>
- 16 Greater Manchester Combined Authority, 'National Skills Fund: Priorities and Approaches for 2022/23', 11 February 2022, retrieved 16 December 2022, https://democracy.greatermanchester-ca.gov.uk/documents/s19059/Skills%20Bootcamps%20Policy%20Spec_Wave%20Three%20FY2022-23_Grants.docx

-
- 17 Sasse T, Rutter J, Norris E and Shephard M, *Net Zero: How government can meet its climate change target*, Institute for Government, 2020, retrieved 16 December 2022, www.instituteforgovernment.org.uk/publication/report/net-zero-how-government-can-meet-its-climate-change-target
 - 18 Greater Manchester Combined Authority, *Industry Labour Market and Skills Intelligence Report: Low Carbon Buildings*, August 2020, retrieved 16 December 2022, <https://greatermanchester-ca.gov.uk/media/4250/industry-labour-market-and-skills-intelligence-report-low-carbon-buildings-v1.pdf>
 - 19 Greater Manchester Combined Authority, *Local Skills Report and Labour Market Plan*, March 2022, retrieved 16 December 2022, <https://greatermanchester-ca.gov.uk/media/5803/gm-esap-lsr-annexes-march-2022-final.pdf>

Conclusion

- 1 Department for Levelling Up, Housing and Communities, *Cornwall devolution deal*, 2 December 2022, retrieved 30 January 2023, www.gov.uk/government/publications/cornwall-devolution-deal-kevambos-digresennans-kernow/cornwall-devolution-deal
- 2 Starmer K, 'Keir Starmer New Year's speech', speech from Stratford, London, Labour Party, 5 January 2022, <https://labour.org.uk/press/keir-starmer-new-years-speech>

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