Response to the National Infrastructure Assessment

HM Treasury

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Foreword

High quality, reliable and cost-effective infrastructure is central to all of our lives, from the water we drink, to the roads, railways and cycle lanes we use, to the energy that heats our homes.

But it is also central to the government's economic and climate change strategies. Accordingly, in 2015 the government established the National Infrastructure Commission (NIC), with a remit to provide independent expert advice on the UK's long-term infrastructure needs.

In October 2018 the NIC published its flagship National Infrastructure Assessment (NIA), which set out an array of ambitious recommendations across all areas of economic infrastructure. It grouped its recommendations under seven key headings: Building a digital society; Low cost, low carbon; Revolutionising road transport; Transport and housing for thriving city regions; Reducing the risks of drought and flooding; Choosing and designing infrastructure; and Funding and financing.

This document, alongside the National Infrastructure Strategy, which has also been published today, provides the government's response. The Strategy is designed to support levelling up and decarbonisation across the UK, and ranges from gigabit-capable broadband to offshore wind, nuclear and other low carbon technologies, electric and autonomous vehicles to flood defences and waste water management. It covers new technologies and old, from carbon capture and storage to household recycling. It highlights the importance of good design and effective project management.

Since the NIA was published, significant progress has been made against the NIC's recommendations, as demonstrated by the fact that the government is partially or fully endorsing over 80% of the recommendations. These include:

- £5 billion of funding to subsidise the rollout of gigabit-capable broadband in the hardest to reach areas of the UK
- a new higher target of 40GW offshore wind by 2030, including 1GW of innovative floating offshore wind
- significant public investment in the UK's electric vehicle (EV) charging network, in order to kickstart private investment and accelerate mass adoption of EVs
- £4.2 billion in long-term transport funding settlements to support the largest city regions outside London
- investing £5.2 billion by 2027 to protect communities better from flooding and coastal erosion

- embedding good design across major infrastructure projects, with all infrastructure projects expected to have a board level design champion by the end of 2021
- the establishment of a new National Infrastructure Bank, delivering investment into infrastructure projects and offering world-class expertise and capability in infrastructure financing

I hope readers of this document will note the scale and range of the government's ambition, the quality of this country's underlying expertise in all areas of infrastructure creation, financing and regulation, and the value of the wider framework of transparency and accountability that is being developed through the National Infrastructure Commission.

Jesse Norman

Financial Secretary to the Treasury

Chapter 1

Government response to the recommendations

Building a digital society

Recommendation 1: The Commission recommends that government should set out a nationwide full fibre connectivity plan by spring 2019, including proposals for connecting rural and remote communities. This should ensure that full fibre connectivity is available to 15 million homes and businesses by 2025, 25 million by 2030 with full coverage by 2033.

The government mostly endorses this recommendation.

1.1 The government published its 'Future Telecommunications Infrastructure Review' (FTIR) in July 2018.[1] This set out a strategy for connecting 15 million premises to full fibre broadband by 2025, and nationwide coverage by 2033.

1.2 The government is ambitious to go further and faster, and is aiming for UK-wide gigabit coverage as soon as possible. In the most commercial parts of the country the FTIR concluded that to maximise the deployment of full fibre, which is gigabit-capable, the government should promote network competition and commercial investment.

1.3 However, some areas are unlikely to be commercially viable for gigabit broadband deployment. The government has committed £5 billion of funding to subsidise the rollout of gigabit-capable broadband to the hardest to reach areas in the UK.

1.4 The government has made good progress in delivering the recommendations in the FTIR, including:

- introducing the Telecommunications Infrastructure (Leasehold Property) Bill into Parliament. This creates a faster, cheaper application process for operators to gain access to properties when a landlord is unresponsive and a tenant has requested a broadband service
- announcing it will amend the Building Regulations 2010 to require new homes to be built with gigabit broadband, where this can be installed for less than £2,000. The network operators have committed to contribute to the costs
- concluding a call for evidence aiming to make it easier for telecoms operators to reuse existing passive infrastructure beyond that owned by

[1] 'Future Telecommunications Infrastructure Review', Department for Digital, Culture, Media and Sport, July 2018.

Openreach – for example ducts, poles or masts – to deploy new telecoms networks

- releasing Street Manager in July, which will drive standardisation and accountability across operators and highways authorities
- publishing the fourth 'Specification for the Reinstatement of Openings in Highways', which will drive both faster and more innovative network rollout

1.5 Currently, over 34% of premises have access to gigabit-capable broadband.[2]

Recommendation 2: Government should part subsidise rollout to rural and remote communities, beginning by 2020, starting with the hardest to reach areas and community self-build.

The government fully endorses this recommendation.

1.6 Analysis carried out for the FTIR identified that approximately 20% of UK premises could be left behind in gigabit rollout without support from government.

1.7 In May 2019, the government launched the Rural Gigabit Connectivity (RGC) Programme. RGC is upgrading public sector buildings to act as gigabit-capable connectivity 'hubs', making an area more attractive for commercial investment, with vouchers available to incentivise further deployment. In addition, Building Digital UK's Superfast Programme is supplying gigabit broadband to premises without access to 30Mbps (superfast) coverage.

1.8 Going forward these programmes will be succeeded by the UK Gigabit Programme, a multi-intervention approach to deliver the £5 billion committed by government, supporting the deployment of gigabit-capable networks in the hardest to reach areas of the country.

1.9 Alongside government subsidy, Ofcom is reviewing the regulations of the broadband market to promote fibre deployment, exploring different solutions based on the competitiveness of an area. It is proposing to maintain existing regulation of wholesale pricing in areas it deems potentially competitive (c.70% of premises). For the remaining 30% of premises, Ofcom is proposing a Regulated Asset Base (RAB) approach, which will work alongside the government's £5 billion UK Gigabit Programme. This RAB approach aims to incentivise Openreach to build gigabit broadband by helping it to recover the costs through regulated copper prices. As a result, Openreach has committed to build full fibre to 3.2 million premises in these less competitive areas.

Recommendation 3: Ofcom should promote network competition to drive the commercial rollout of full fibre, by deregulating where competition is effective and

2 'Local Broadband Information' thinkbroadband, November 2020

guaranteeing a fair bet on risky investments before regulating any uncompetitive areas.

The government fully endorses this recommendation.

1.10 The government's Statement of Strategic Priorities (SSP) for Ofcom set out the following regulatory outcomes, identified in the FTIR, to promote network competition and commercial investment in gigabit broadband:[3]

- greater regulatory certainty through five-year market review periods and a framework which provides confidence to firms making risky investments
- recognising the convergence of business and consumer uses of networks through unified access market reviews, where appropriate
- regulation only where necessary to address competition concerns and ensure the interests of consumers are safeguarded
- recognition of the differences in local market conditions across the UK through, where appropriate, a geographically differentiated approach to wholesale regulation with less regulation in areas where there is competition between networks
- flexibility for firms to develop new approaches to reduce deployment costs and manage risks through their commercial arrangements

1.11 Ofcom is required to consider the SSP when undertaking its independent regulatory functions. By the end of 2020 the government intends to make legislative changes to enable Ofcom to extend its market review period.

1.12 Since the FTIR, Ofcom has issued several consultations outlining its proposals for future regulation. Ofcom has been clear that its strategy is to promote network competition and commercial investment and that it:

- intends to lengthen its market review period from three to five years
- will consider the business and residential broadband markets, as well as the passive infrastructure market, more holistically than previously
- will adopt different regulatory approaches in different areas of the country, depending upon the level of competition that is present

Recommendation 4: Government and Ofcom should allow for copper switch-off by 2025.

The government fully endorses this recommendation.

1.13 By moving onto gigabit networks, Internet Service Providers (ISPs) and their customers will secure the benefits of the new technology, while retiring copper networks will enable cost savings and de-risk gigabit investments.

1.14 Switchover should be led by industry, working closely with Ofcom and the government. To encourage consumer take-up, new networks will need to have suitable 'entry level' products at prices similar to those on copper

[3] 'Statement of Strategic Priorities for telecommunications', Department for Digital, Culture, Media and Sport, February 2019

networks. The government also expects ISPs to take up and promote gigabit products to drive consumer demand.

1.15 The government has established a taskforce led by Which?, the Federation of Small Businesses and the Confederation of British Industry to lead a strategic review into boosting residential and business take-up of gigabit-capable broadband. Alongside this, Ofcom will play an important role in ensuring industry readiness for switchover and that a transparent process is followed.

1.16 Openreach is planning to retire its copper network on an exchange-by-exchange basis as new networks are rolled out. Ofcom is currently consulting on removing copper regulations once Openreach has achieved 100% ultrafast coverage in an exchange.

1.17 Openreach's ability to switch off its copper network is also constrained by the switch-off of the Public Switched Telephone Network (PSTN) in 2025. Services using PSTN will need to be delivered over Internet Protocol Technology.

1.18 PSTN traditionally supports landline voice calls, but a variety of other services also depend on this network, including some that support vital public services and critical national infrastructure. Openreach and industry must deliver this change successfully before the copper network is switched off.

Recommendation 5: Government and Ofcom should take action to cut the cost of full fibre deployment.

and:

Recommendation 6: Government should ensure the processes for obtaining wayleaves and connecting new builds are the same for digital infrastructure as other utilities by 2019.

The government fully endorses the first recommendation and partially endorses the second.

1.19 The Electronic Communications Code (the Code) remains the appropriate framework for telecoms providers to negotiate access agreements with landowners. The government reformed the Code in 2017 to make it easier and cheaper for digital infrastructure to be deployed and maintained.

1.20 The Telecommunications Infrastructure (Leasehold Property) Bill is expected to gain Royal Assent in the coming months. The Bill creates a faster, cheaper process in the courts for operators to obtain interim rights to multi-dwelling buildings (where a customer is requesting a service but where a landlord is failing to respond to requests for access). The Bill contains powers to extend its scope to include other types of property including offices and business parks.

1.21 Gas, water and electricity do not have a unified wayleave regime, with variation between the rights afforded to each utility. Telecommunications companies have comparable powers to other utilities to access property.

1.22 The government will consult on whether further reforms to the Code are required to ensure it provides an adequate framework for the UK's network requirements. It is also exploring non-legislative interventions to address these challenges.

1.23 In 2019, over 85% of new build premises had access to full fibre broadband.[4] The government believes the last 15% will not receive gigabit broadband without government intervention.

1.24 The government announced in March 2020 that it will amend the Building Regulations to require developers to provide a gigabit-capable connection unless the cost exceeds £2,000. The technical consultation is expected to be published in winter 2020 and the regulations are expected to be laid in summer 2021.

Recommendation 7: Local government should designate 'digital champions' to improve telecoms processes such as street work permissions and access to publicly owned assets.

The government partially endorses this recommendation.

1.25 The government agrees that digital champions in local authorities are crucial to ensuring that telecoms providers and local authorities work collaboratively on deployment issues, including street works and access to public sector assets.

1.26 The government's Digital Connectivity Portal encourages local authorities to identify a senior-level digital champion to support the development and implementation of a local digital infrastructure strategy. Earlier in 2019, the Ministers for Digital and Creative Industries and Local Government communicated the need for digital champions to all local authority chief executives in England. This was reiterated by ministers in a letter to all tier-1 UK authorities.

1.27 Ministers requested details of where digital champions were in place. The vast majority of tier-1 local authorities have responded, and the government continues to work with local bodies and their representatives to provide advice and support.

Recommendation 8: Ofcom should monitor the accessibility of Openreach's duct and pole infrastructure by levels of usage.

The government fully endorses this recommendation.

1.28 Access to Openreach's duct and pole network is key to reducing the costs of deployment for alternative networks and, therefore, to stimulating network competition.

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4 'New build homes coverage update', thinkbroadband, August 2020

1.29 Since the NIA was published in July 2018, Ofcom has conducted a review of the Passive Infrastructure Market.[5] As a result of this review Ofcom has implemented regulations to provide other operators with greater access to Openreach's duct and pole network.

1.30 While the process by which other network operators access Openreach's ducts and poles is bedding in, Ofcom is closely monitoring the effectiveness of the regulations, including the extent to which they are increasing the usage of Openreach's duct and pole network.

5 'Physical Infrastructure Market Review', Ofcom, June 2019

Low cost, low carbon

Recommendation 9: The Commission recommends that government should set out a pipeline of pot 1 Contracts for Difference auctions, to deliver at least 50% renewable generation by 2030, as part of the transition to a highly renewable generation mix.

In August 2020, the Commission updated its recommended target for deployment of renewables as part of a low-cost low carbon electricity system, from 50% to 65% by 2030.[6]

The government mostly endorses this recommendation.

1.31 Since the NIA was published, the government has shown world-leading ambition on decarbonisation by setting a new legislative target that requires economy-wide greenhouse gas emissions to be reduced to net zero by 2050. The government also recently increased its target for offshore wind deployment to a total capacity of 40GW by 2030.[7]

1.32 Meeting net zero will require a substantial amount of new low-carbon power sources to be built before 2050. The government agrees that this requires high levels of renewable generation.

1.33 The government will continue to support the deployment of renewables through competitive Contracts for Difference auctions every two years, with the next due in late 2021. The next auction round will include onshore wind and solar PV.

1.34 Consistent with its target of 40GW offshore wind by 2030, the government expects around 65% of electricity generated to come from renewable sources by 2030. However, the need to ensure generation can be brought on sustainably and at least cost to consumers, as well as the fact that the sector contributes appropriately to the government's overall climate goals, means that this is not a strict renewables target.

Recommendation 10: The government should move technologies that have recently become cost competitive, such as offshore wind, to pot 1 following the next Contracts for Difference auction in spring 2019. Pot 1 should be used for the overwhelming majority of the increase in renewable capacity required.

The government partially endorses this recommendation.

1.35 The government recognises the cost reductions in technologies such as offshore wind, which have been evidenced in the Contracts for Difference (CfD) auction round results (AR3). The auction outcome demonstrates the value of competition in driving value for money for consumers and ensuring that the level of support is appropriate. It is important that the design of the scheme continues to provide this competitive tension.

1.36 It is also important that the government considers the significant role that renewable technologies will play in delivering net zero. Driving deployment

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6 'Renewables, recovery, and reaching net zero', National Infrastructure Commission, August 2020

7 'The Ten Point Plan for a Green Industrial Revolution', HM Government, November 2020

at scale, providing certainty to supply chains and reducing cost through innovation are all key if the UK is to meet stated climate ambitions.

1.37 The next auction round will include the technologies previously in Pot 1 auctions.

1.38 The government is in the process of planning the fourth allocation round. A consultation on the next auction round in late 2021 (AR4) closed on 29 May and the government's response sets out the pot structure.

Recommendation 11: The government should publish indicative auction dates and budgets for the next decade by 2020.

The government partially endorses this recommendation.

1.39 The government agrees that providing visibility of future auctions is important in allowing the necessary investment to be made into supply chains. This will enable industry to continue to bring costs down.

1.40 As set out in the 'Clean Growth Strategy', the government has committed up to £557 million (2012 prices) of annual support for further CfDs.[8] This includes (AR3), for which results were announced in September 2019.

1.41 The government intends to hold another CfD allocation round in late 2021, with further auctions held around every two years after that. These auctions will bring forward new capacity throughout the 2020s.

1.42 The government recently increased its target for offshore wind deployment to a total capacity of 40GW by 2030. It also set a target to support up to double the capacity of renewable energy in the next CfD auction, which will open in late 2021. These commitments provide the industry with the certainty it needs to invest in bringing forward new projects.

1.43 However, regarding specific auction budgets, individual auction parameters are set in advance of each allocation round considering the latest updated evidence including, for example, generation costs, market conditions and decarbonisation ambitions. This approach maximises value for money for consumers by setting auction parameters that are more likely to achieve an optimal outcome.

Recommendation 12: Over time, the government should take whole systems costs into account in Contracts for Difference auctions, as far as possible.

The government mostly endorses this recommendation.

1.44 The government agrees that minimising the total system costs of the transition to a low carbon energy system is crucial. Therefore, these costs should be borne by those best able to manage them.

1.45 All generating technologies, including intermittent renewable electricity generators such as solar and wind, impose impacts on the electricity system

[8] 'Clean Growth Strategy', Department for Business, Energy and Industrial Strategy, October 2017

to varying degrees. These include impacts on the network (system balancing and operability) and the wholesale and capacity markets. The current market arrangements are rooted in the principles of cost-reflectivity, which helps to manage costs efficiently. However, the government, regulator and system operator also keep the arrangements under review in order to respond to and anticipate current and future trends in the energy system. For example, the network charging reviews undertaken by Ofgem in 2019 aim to ensure that users of the network receive more accurate price signals of the costs and benefits they bring to the system, reducing costs to consumers. The charges that generators must pay via current market mechanisms feed through into the CfD competitive allocation process.

1.46 CfD's have proved successful in reducing the cost of capital for renewable technologies, thereby reducing costs for consumers. However, this has insulated generators from price signals, potentially failing to incorporate the total system costs of intermittent renewables. As the NIC recommended, the government will ensure that total system costs are considered in designing future CfD rounds as far as possible and will publish a call for evidence on the evolution of the CfD regime to explore these issues further.

Recommendation 13: The government should consider whether there is a case for a small-scale, pot 2 auction in the 2020s, if there are technologies which are serious contenders for future pot 1 auctions.

The government fully endorses this recommendation.

1.47 If less-established low carbon technologies have the potential to produce cost reductions, provide a more diverse generation mix, and benefit UK communities then it is right that the government considers the merits of providing support for these technologies. In the 'Clean Growth Strategy', which the government published in October 2017, the government underlined the need for renewable technologies to demonstrate ongoing cost reduction and to compete with other forms of low carbon generation.

1.48 The government considers the appropriate parameters ahead of each Contracts for Difference auction, taking into account value for money for consumers and long-term policy objectives. The government continues to engage with developers of innovative and less-established technologies to understand their cost-reduction trajectories, where those savings are likely to be found and, importantly in light of declining costs for other renewables, whether there may be a rationale for funding arrangements outside of the Contracts for Difference scheme. Any proposals must be able to credibly demonstrate value for money for consumers and public funds.

Recommendation 14: The government should not agree support for more than one nuclear power station beyond Hinkley Point C, before 2025.

1.49 The government agrees with the NIC's assessment of the importance of developing a flexible electricity system and the significant role of renewable generation in delivering a low cost, stable, reliable and low carbon electricity system.

1.50 The government also recognises the NIC's view that a large degree of uncertainty remains which affects what the optimal mix of electricity generation technologies might be in 2050.

1.51 Since the NIC assessment was published, the government has legislated for a target of net zero greenhouse gas emissions by 2050. This is likely to result in a significant increase in electricity demand and require the power sector to reach low levels of carbon emissions. In turn, these factors further affect electricity system requirements to decarbonise at lowest cost, including the necessary sources of generation.

1.52 This uncertainty means it is important to maintain options by pursuing additional large-scale nuclear projects, subject to clear value for money for both consumers and taxpayers and all relevant approvals. Further details of the government's nuclear strategy will follow in the Energy White Paper. The government will consider the relative needs of the system and the value of new and alternative technologies in delivering a low-cost, low carbon and reliable electricity system.

1.53 To this end, the government believes that carbon capture and storage technology is likely to have a critical role to play across the UK economy, including alongside nuclear to deliver a system with these characteristics. The government recognises the strategic need to bring forward low carbon power in a way which protects consumers and taxpayers, and which will contribute to decarbonisation of the power sector at low cost.

1.54 The government consulted on new models for financing new nuclear projects and carbon capture and storage projects in summer 2019. A response on carbon capture and storage projects was published in August 2020, and a response for financing new nuclear power will follow in due course.[9]

Recommendation 15: The Commission recommends that government needs to make progress towards zero carbon heat.

The government fully endorses this recommendation.

1.55 The government agrees that progress needs to be made towards zero carbon heat. To achieve net zero the UK's buildings infrastructure will likely need to be virtually zero carbon by 2050. The bulk of building emissions are from heating.[10] Because of this, decarbonising buildings requires energy efficiency improvements to reduce demand as well as policy and support to drive switching to low carbon sources of heating.

1.56 Decarbonising heat will require a major transformation of the UK energy system affecting generation, networks and nearly every home and business in the UK. The diversity of buildings and heating demand means no one solution will likely prove the best option for all. A mix of technologies is likely to be needed. Options that could play a key strategic role include electric

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9 'Carbon capture, usage and storage: business models', Department for Business, Energy and Industrial Strategy, August 2020

10 'Decarbonisation of Heat', Energy Systems Catapult, March 2020

heat pumps, green gas in the form of low carbon hydrogen or biomethane, and low carbon heat networks.

1.57 The government is continuing to test different options for decarbonising heat, to enable decisions in the first part of the 2020s on the best long-term pathway. The government continues to support innovation to reduce costs and improve the performance and acceptability of the different technologies.

1.58 The government's approach to decarbonising buildings is in line with meeting existing carbon targets and ensuring the UK stays on track for net zero. This includes building the foundations for the mass deployment of low carbon heating through the Renewable Heat Incentive and Heat Networks Investment Project.

1.59 Deployment of low carbon heating will include a more joined up approach with energy efficiency measures where low carbon heating will deliver greater benefits for consumers. The Chancellor recently announced a net zero building package worth in excess of £3 billion.[11] This new funding represents a significant and accelerated down payment on decarbonising buildings, to help stimulate the economic recovery and create green jobs. This includes further investment in the worst energy performing homes, social housing and public sector buildings. The government is planning to publish a 'Heat and Buildings Strategy' ahead of Spring Budget 2021, which will set out the immediate actions it will take to reduce emissions from buildings. These actions include the deployment of energy efficiency measures and low carbon heating as part of an ambitious programme of work required to enable key strategic decisions on how the UK will achieve the mass transition to low carbon heat and set out a path to decarbonising all homes and buildings.

1.60 Alongside this, the government is consulting on a number of regulatory measures to unlock vital private investment in low carbon heat and energy efficiency.

Recommendation 16: The government should establish the safety case for using hydrogen as a replacement for natural gas, followed by trialling hydrogen at community scale by 2021.

and:

Recommendation 17: The government should, subject to the success of community trials, launch a trial to supply hydrogen to at least 10,000 homes by 2023, including hydrogen production with carbon capture and storage.

The government mostly endorses both recommendations.

1.61 Hydrogen is one potential option for decarbonising heating, alongside other solutions, including heat pumps and heat networks. The government is planning to publish a 'Heat and Buildings Strategy' in due course, which will set out the immediate actions it will take to reduce emissions from buildings. This will include a programme of work to enable key strategic decisions on

[11] 'Press release: greener homes, jobs and cheaper bills', HM Government, September 2020

how the mass transition to low carbon heat will be achieved and begin the path to decarbonising all homes and buildings. The government has also set out its intention to publish a 'UK Hydrogen Strategy' in spring 2021.

1.62 As part of this work, the government is supporting a range of research, development and testing projects designed to help determine the feasibility of using low carbon hydrogen as an alternative to the use of natural gas for heating in homes, businesses and industry. The Department for Business, Energy and Industrial Strategy (BEIS) is working closely with industry and other stakeholders to ensure that the overall programme of work is comprehensive and provides the necessary evidence to assess key issues including safety, feasibility, costs and benefits and the overall consumer experience.

1.63 The 'Ten Point Plan for a Green Industrial Revolution' underlines the government's support for accelerating the work to investigate the use of hydrogen for decarbonising heating, including supporting the industry to deliver on ambitious new goals for hydrogen heating trials. The Plan sets out milestones including beginning a neighbourhood hydrogen heating trial by 2023 and a large village hydrogen heating trial by 2025; and a milestone to set out plans by 2025 for a possible pilot hydrogen town by the end of the decade.

1.64 A mixture of different production technologies will be required to deliver the level of hydrogen demand anticipated for 2050. The government is looking at progressing the development of new low carbon hydrogen production methods through a twin track approach to bring forward both electrolytic hydrogen from renewables and carbon capture and storage (CCS)-enabled hydrogen. This approach aligns with Climate Change Committee (CCC) recommendations. To this end, the government has already committed £800 million at Budget 2020 for CCS, in order to deploy CCS infrastructure in at least two clusters through the 2020s, with one active in the mid-2020s. In line with the ambitious approach set out in the Prime Minister's speech, this has now been expanded to cover four clusters and puts the UK on a pathway for low-carbon hydrogen production where the government believes a target of 5GW by 2030 is achievable.

Recommendation 18: By 2021, government should establish an up to date evidence base on the performance of heat pumps within the UK building stock and the scope for future reductions in the cost of installation.

The government mostly endorses this recommendation.

1.65 In December 2018, BEIS published a comprehensive overview of current evidence on low-carbon heating – 'Clean Growth – Transforming Heating'.[12] This report included evidence on the performance of heat pumps and potential for future cost reductions.

1.66 In addition, the government is developing a database of heat pump performance using data gathered from systems installed with a Metering

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[12] 'Clean Growth – Transforming Heating', Department for Business, Energy and Industrial Strategy, December 2018

and Monitoring Service Package. This is part of the Renewable Heat Incentive scheme. Results will be used to inform future research on heat pump performance.

1.67 The government has also launched a £16.5 million Electrification of Heat Demonstration Project.[13] This project aims to demonstrate the feasibility of a large-scale rollout of heat pumps in the UK by installing heat pumps in a representative range of 750 homes. This is alongside new products and services designed to overcome the barriers to deployment. This project will provide up to date evidence on the performance of heat pumps across the UK building stock and help further understanding of the scope for future reductions in the cost of installation.

1.68 In the '10 Point Plan', the government set out an aim for 600,000 heat pump installations per year by 2028. This will be achieved through a mix of government support and regulatory incentives.

Recommendation 19: The government should set a target for the rate of installations of energy efficiency measures in the building stock of 21,000 measures a week by 2020, maintained at this level until a decision on future heat infrastructure is taken.

1.69 To achieve the ambitions set out in the 'Clean Growth Strategy' and the UK's net zero target, the UK needs to work towards largely eliminating emissions from buildings by 2050. This will require even greater action on energy efficiency over the coming decades; the government agrees with the need to increase the rate of energy efficiency improvements across the UK's building stock. This is key to decarbonising the economy at lowest cost, as well as saving money for bill payers, improving occupants' health, and delivering air quality benefits.

1.70 However, the government does not agree with the recommendation to set a measure-based target. This is because such a target could lead to a focus on the number of measures delivered, at the expense of the energy or emissions reductions achieved. Particularly in larger commercial and industrial buildings, where it makes most sense, the government is planning to consult on moving to measuring and rewarding actual energy and carbon reductions along the lines of the successful NABERS scheme in Australia. A measure-based target could also stifle potential innovation.

1.71 The government is planning to publish a 'Heat and Buildings Strategy', and other consultations later this year which will set out immediate actions for reducing emissions from buildings and set us on a path to reach the UK's 2050 net zero target.

Recommendation 20: Allocating £3.8 billion between now and 2030 to deliver energy efficiency improvements in social housing.

The government fully endorses this recommendation.

13 'Heat in buildings', gov.uk

1.72 Emissions across all sectors of the housing stock, including the social housing sector, need to be reduced. 1.8 million social homes still fall below EPC Band C, with 9% of social tenants in fuel poverty.[14] In homes at EPC Band D this rises to 18% and in homes at EPC Band E or below to over 40% in fuel poverty.[15] There needs to be significant investment over the next 15 years to upgrade these homes to improve outcomes for tenants and get the social housing sector on a path to net zero.

1.73 The government, in its recently published 'Social Housing White Paper', has committed to review the Decent Homes Standard to consider how it can better support the decarbonisation and energy efficiency of social homes.[16]

1.74 The Summer Economic Update announced a £50 million fund to demonstrate innovative approaches to retrofitting social housing at scale.[17] Funding will be allocated competitively, building on the experience of the Whole House Retrofit (WHR) programme. The WHR competition was launched in May 2019 and awarded a total of £7.7 million to the first three winning organisations.[18]

1.75 The Demonstrator project is a short-term investment to learn lessons and innovate. A further £60 million has been allocated at the Spending Review (SR) to continue the development of the scheme into next year, in line with manifesto commitments, and further funding will be confirmed at the multi-year SR.

Recommendation 21: The government should continue to trial innovative approaches for driving energy efficiency within the owner occupier market.

The government fully endorses this recommendation.

1.76 Owner occupiers own 64% of all homes.[19] Engaging owner occupiers in energy efficiency improvements will be vital to reducing greenhouse gas emissions and reducing energy bills. In addition to the Green Home Grant, government is:

- funding supply chain demonstration projects across England which focus on improving coordination and skills in the retrofit supply chain
- allocating budget to BEIS' Local Energy Hubs to carry out feasibility studies with local authorities on using financial incentives to encourage homeowners to improve their homes
- continuing to develop the Simple Energy Advice service which provides tailored energy efficiency advice to homeowners on how to cut their energy bills and make their homes greener. It also signposts users to

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14 'Annual Fuel Poverty Statistics in England' Department for Business, Energy and Industrial Strategy, April 2020

15 ibid

16 'The Charter for Social Housing Residents: Social Housing White Paper', Ministry of Housing, Communities and Local Government, November 2020

17 'A Plan for Jobs', HM Treasury, July 2020

18 'Whole House Retrofit Competition – successful bids', Department for Business, Energy and Industrial Strategy, June 2020

19 'English Housing Survey 2018: headline report', Ministry of Housing, Communities and Local Government, January 2020

relevant national and local financial support schemes, as well as locally-based tradespeople

1.77 The government also set out further details on how it will build the market for energy efficiency in the 'Green Finance Strategy', including:[20]

- the launch of a Green Home Finance Innovation Fund, which has allocated nearly £2 million to three organisations to develop green finance products and pilot them to incentivise energy efficiency retrofit in homes
- a commitment to consult on the role of mortgage lenders in supporting homeowners to improve the energy efficiency of the homes they lend to which was published on 18 November

1.78 Beyond these pilots and market-shaping measures, the government can use long-term regulatory measures to provide certainty to the market and clear signals to homeowners in the context of the government's commitment to net zero. This will be particularly true for those household not connected to the gas grid. Further details will be set out as part of the 'Heat and Buildings Strategy'.

Recommendation 22: The government should set out, by the end of 2018, how regulations in the private rented sector will be tightened and enforced over time.

The government fully endorses this recommendation.

1.79 In line with the commitment in the 'Clean Growth Strategy', the government has published its consultation on improving the energy performance of privately rented homes to Energy Performance Certificate (EPC) Band C by 2028, encouraging compliance with the regulations and strengthening enforcement options. The consultation will run until December 2020.[21]

1.80 In non-domestic buildings, the government has already consulted on an ambitious new target for the private rented sector (PRS) regulations of EPC Band B by 2030. The government will respond to that consultation this year, setting out the target trajectory for 2030, giving landlords time to plan and deliver the necessary improvements.

1.81 Key to the effective delivery of stronger minimum standards, for both homes and non-domestic buildings, is the enforcement of PRS regulations, which is the responsibility of local authorities. To support local authorities, BEIS is conducting a PRS Enforcement Pilot Study, which completed its first phase in March 2020. Lessons learned from the first phase of the study have been used to develop a best practice enforcement toolkit to help streamline the enforcement process and make it less resource intensive.

1.82 BEIS is now conducting a second round of pilots to road-test and refine the toolkit with a new, wider pool of local authorities before it disseminates the final toolkit to all local authorities in England and Wales in 2021. The toolkit

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20 'Green Finance Strategy', HM Government, July 2019

21 'Improving the energy performance of privately rented homes', Department for Business, Energy and Industrial Strategy, September 2020

will support local authorities to promote and enforce the PRS regulations in a cost-effective way.

Recommendation 23a: The Commission recommends that government should set a target for recycling 75% of plastic packaging by 2030.

The government mostly endorses this recommendation.

1.83 Statutory recycling targets are in place to 2022 and have – over the last 10 years – succeeded in almost doubling the UK recycling rate for plastic packaging to 47%. The government is ambitious to make further progress. The recent 'Resources and Waste Strategy' for England committed to work towards all plastic packaging placed on the market being recyclable, reusable, or compostable by 2025.[22]

1.84 In 2021, the government will set out and consult on its preferred position on long-term packaging recycling targets as part of its second stage consultation on packaging producer responsibility. This will include a plastic packaging recycling target for 2030. The proposals for future targets will be informed by the analysis underpinning the government's major waste sector reforms: including the producer responsibility regime for packaging, a deposit return scheme for drinks containers and consistent recycling collections from households and businesses in England. Powers to support the introduction of these reforms were set out in the Environment Bill published in 2020, and presently before Parliament. The government has also consulted on the details of the plastic packaging tax that will be implemented in 2022.[23]

Recommendation 23b: The Commission recommends that government should set a target for recycling 65% of municipal waste by 2030. Government should set individual targets for all local authorities and provide financial support for transitional costs.

1.85 The government has made a commitment that 65% of municipal waste will be recycled by 2035. The government's major waste reforms – including consistent recycling collections in England and extended producer responsibility for packaging – will drive progress towards achieving this target. The government is also taking forward waste prevention measures such as bans on certain single-use plastic items and proposals to apply eco-design and consumer information requirements for products through the Environment Bill. In addition, it is working on a new Waste Prevention Programme due to be consulted on in early 2021 which is expected to focus on reuse, repair and remanufacture of products.

1.86 The 65% by 2035 target allows for a phased implementation of consistent recycling collections by local authorities and businesses. This will help to minimise costs for small and micro businesses. The government will also consult on other measures to reduce costs to micro firms such as possible

22 'Resources and waste strategy for England', Department for Environment, Food and Rural Affairs, December 2018

23 'Plastic Packaging Tax: policy design', HM Revenue and Customs, November 2020

exemptions in 2021. Achieving a 65% target by 2030 would present a higher level of disruption and costs for both local government and for businesses who would have to introduce changes to significantly quicker timescales.

1.87 Nevertheless, given the scale of reforms in this space, the government has committed to refresh the 'Resources and Waste Strategy' every five years. As policy impacts and market reactions materialise, the government will consider the case for updating targets if the evidence suggests this is helpful to deliver desired outcomes.

1.88 The government does not believe it is appropriate to set local targets for recycling. However, the government has consulted on introducing non-binding performance indicators for local authorities for different material streams and will work closely with local government to develop these proposals. These indicators would allow a more tailored approach to performance management compared to a narrow weight-based recycling target, helping local authorities to benchmark their recycling performance and to make improvements by following good practice.

Recommendation 24: The government should ensure a consistent national standard of recycling for households and businesses by 2025.

and:

Recommendation 25: The government should ensure separate food waste collection for households and businesses (to enable production of biogas) by 2025.

The government fully endorses both of these recommendations.

1.89 The government supports a consistent approach to recycling collections from households and businesses. It intends to use powers in the Environment Bill to mandate all local authorities in England to collect the same core set of dry recyclable materials from households and provide a weekly separate household food waste collection.

1.90 Through the Environment Bill the government will also legislate to require all businesses to separate recyclable materials and food waste from residual waste for collection. In the next stage of policy development, the government will consider exemptions for small or micro firms.

1.91 These measures follow a consultation in 2019 on mandating a core set of materials to be collected from households and businesses.[24] The government is clear that recyclable waste streams should ideally be collected separately to improve quality but recognises that this may not always be practicable and therefore local authorities and businesses will retain flexibility on how materials are collected to take account of technical, environmental and economic considerations.

1.92 Ideally inedible food waste should be sent to anaerobic digestion as this produces the best environmental outcome, producing biogas and digestate

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24 'Consultation on consistency in household and business recycling collections in England', Department for Environment, Food and Rural Affairs, July 2019

which can be used for soil improvement. Introducing a mandatory separate food waste collection will significantly increase the quantity of food waste available to the industry, helping to provide a reliable source of feedstock and grow anaerobic digestion capacity across the country.

Recommendation 26: The government should establish clear two symbol labelling (recyclable or not recyclable) across the UK by 2022.

The government mostly endorses this recommendation.

1.93 The government indicated in the 'Summary of Responses' to its 2019 consultation on reforming the UK packaging producer responsibility regime that it was minded to require recyclability labelling on packaging in order to inform people how to dispose of their packaging, subject to further analysis and legal considerations.[25]

1.94 The government is continuing to consider the case for mandatory labelling as it develops its proposals to reform the packaging producer responsibility system and introduce consistent recycling collections in England.

1.95 The government will consult on its final policy proposals for packaging producer responsibility including those relating to labelling and the collection of packaging materials for recycling in 2021. The required powers to regulate for the provision of resource efficiency information, such as labelling on packaging to explain how to recycle or dispose of it, are provided in the Environment Bill.

Recommendation 27: The government should establish incentives to reduce packaging and for product design that is more easily recyclable by 2022.

and:

Recommendation 28: The government should establish restrictions on the use of hard-to-recycle plastic packaging (PVC and polystyrene) by 2025.

The government mostly endorses both of these recommendations.

1.96 The government endorses incentives to reduce packaging and improve product design. To achieve this, the government's producer responsibility reforms will make producers responsible for the full net costs of managing packaging when it becomes waste. This will provide a clear financial incentive for producers to increase the recyclability of their packaging and reduce use of unnecessary and avoidable packaging. A modulated fee structure should incentivise the design and use of easy to recycle packaging materials and more sustainable packaging.

1.97 The government consulted on these proposals in 2019 and published its 'Summary of Responses' in July 2019.[26] The Environment Bill includes powers

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[25] 'Consultation on reforming the UK packaging producer responsibility system', Department for Environment, Food and Rural Affairs, July 2019

[26] 'Packaging waste: changing the UK producer responsibility system for packaging waste', Department for Environment, Food and Rural Affairs, February 2019

to introduce regulations to deliver these reforms, and the government is undertaking further work to inform its final policy proposals for the next stage consultation in early 2021.

1.98 The government also supports the UK Plastics Pact. One of its targets is to eliminate problematic, hard-to-recycle or unnecessary single-use packaging by 2025.

1.99 The government expects the initiatives by industry, such as the UK Plastics Pact, combined with reforms to the packaging waste regulations to work together to eliminate the most problematic plastics from use. It is premature to commit to further restrictions at this time however, as set out in the 'Resources and waste strategy', if there are suitable and practical alternatives materials available for use by producers, then a ban of certain problematic plastics may be appropriate.

Recommendation 29: The government should establish a common data reporting framework for businesses handling commercial and industrial waste by the end of 2019, ideally through voluntary reporting but if necessary by legislation.

The government fully endorses this recommendation.

1.100 The government recognises that there is no single or comprehensive way of tracking the 200 million tonnes of waste that the UK generates each year.[27] Many businesses do not have the information they need to unlock the potential value of waste materials. As noted in the NIA, this means there are significant gaps in data gathering, particularly in commercial and industrial sectors.

1.101 The government is committed to making progress on addressing these gaps. An innovative digital solution that captures better data will help to identify how to maximise the value extracted from waste, supporting secondary material markets and boosting productivity. It could also provide a basis for more effective compliance and enforcement work to combat waste crime.

1.102 In this year's Budget, the government committed £7.2 million in capital funding towards the development of the digital waste tracking service. The government has also committed to mandating the use of this service through legislation. The Environment Bill includes a power to do this and a consultation will follow on the detail. A national waste tracking system will improve the quality and accuracy of waste data, make it more user-friendly for businesses, regulators and government, and ensure a level playing field for all businesses.

[27] 'Digest of Waste and Resource Statistics, Department for Environment', Department for Environment Food and Rural Affairs, May 2018

Revolutionising road transport

Recommendation 30a: The Commission recommends that government, Ofgem and local authorities should enable the roll out of charging infrastructure sufficient to allow consumer demand to reach close to 100% electric new car and van sales by 2030.

The government partially endorses this recommendation.

1.103 The government will end the sale of new petrol and diesel cars and vans in 2030, with all vehicles being required to have a significant zero emissions capability (for example, plug-in and full hybrids) from 2030. All new cars and vans sold after 2035 must be 100% zero emission. To support consumers to make the transition to electric vehicles (EV), the government is committed to ensuring that access to charging infrastructure does not act as a barrier towards the transition. The government will work closely with local authorities, Ofgem and industry to ensure that there is sufficient charging capacity to meet demand ahead of need.

1.104 The government will invest £950 million to future-proof grid capacity on motorways and A Roads to prepare for 100% uptake of zero emission cars and vans ahead of need. This will support the private sector to roll out high-powered charging hubs at every motorway service area and key A road service areas.

1.105 The government will extend support for chargepoint installation at homes, workplaces and on-street locations, but reform these schemes so that they target difficult parts of the market such as leaseholders and Small and Medium Enterprises (SMEs). The government has also committed £90 million to fund local EV charging infrastructure, to support the rollout of larger on-street charging schemes and rapid charging hubs in England.

1.106 This is in addition to the £400 million Charging Infrastructure Investment Fund (CIIF), which was launched in September 2019, and aims to catalyse private sector investment in UK public charging infrastructure. The first tranche of investment will support the delivery of a further 3,000 public rapid charge points, more than doubling the number across the UK to 5000 by 2024.[28]

Recommendation 30b: Government should address the implications of technological innovation in long term transport planning processes, including the next rail control period and road investment strategy.

The government fully endorses this recommendation.

1.107 The government agrees with the recommendation and is committed to building the right infrastructure to maximise the productivity of the whole UK economy.

1.108 To make sure the government is making the correct investments, not just for now, but for the future, it is vital that the implications of technological innovation are considered in the long-term planning process.

28 'Over £500m new investment in green technologies', HM Government, September 2019

1.109 Work is underway to consider how to make the transport research and innovation landscape as effective as possible. This includes assessing the potential implications of demographic and technological trends for the transport system. The findings of this work will inform and shape the government's long-term infrastructure plans.

1.110 The second Road Investment Strategy (RIS2), published in March 2020, seeks to harness technology to improve performance on the strategic road network and prepare it for the future.[29] It empowers Highways England to work with others on infrastructure standards and data flows allowing new services to be developed, benefitting road users, and making operations more efficient. The £216 million Innovation and Modernisation fund will be a stimulus for identifying and deploying technologies throughout the next five years, and will help shape the next RIS.

1.111 As part of the Periodic Review (PR) process, Network Rail is challenged on its plans for efficiencies and technological innovation – a critical part of its ability to deliver any efficiencies agreed. Furthermore, as part of the PR18 process, Network Rail was allocated around £250 million (in addition to a further £112 million of matched external funding) for research and development (including to improve efficiency). The R&D funding is supporting key projects including on asset management issues such as weather resilience. As PR23 is developed, the Office of Rail and Road will carefully evaluate the effectiveness of these funds in bringing forward technological innovation and apply lessons learned in PR23. The Department for Transport (DfT) will stay close to this work and take account of it.

Recommendation 31: Ofgem should take on the role of regulating the interaction between EV chargepoints and the electricity network immediately, ensuring that EV charging and vehicle grid services contribute to the optimisation of the energy system. Government, industry and Ofgem should work together to set minimum standards for a network of interoperable, smart charge points.

The government fully endorses this recommendation.

1.112 The government agrees that it is important to regulate the interaction between EV chargepoints and the electricity network. Ofgem regulates connections to the network to ensure that customers receive a good service at a fair price.

1.113 To optimise the energy system, Ofgem incentivises network operators through the RIIO price controls to deliver good service to connection customers and there is an obligation to provide a good service under Guaranteed Standards.

1.114 Since there is a cost in connecting to the network, distribution network operators charge in accordance with a methodology. Operators should engage with customers to help them understand how they can connect

29 'Road Investment Strategy 2: 2020-2025', Department for Transport, March 2020

users as cheaply as possible, and for work that is classed as 'contestable' customers are given the option to choose alternative providers.

1.115 The EV Energy Taskforce reported in 2020 with 21 proposals on how to prepare the electricity system for the mass uptake of EVs.[30] The government is continuing to work with the taskforce to progress these proposals.

1.116 The government, Ofgem and industry are working to promote smart solutions to meet the increase in demand from EVs. The government intends to mandate that all private chargepoints must be smart and comply with minimum standards next year and has awarded nearly £30 million to fund Vehicle-to-Grid (V2G) innovation projects.

1.117 Electricity network operators are seeking to make more efficient use of existing assets through market-based flexibility, before considering network reinforcement. Ofgem will need to consider how to create the right conditions for smart charging and V2G services as part of their next price control period.

Recommendation 32: Ofgem should commission electricity network operators to work with charge point providers to identify potential anticipatory investment required to accommodate public charging infrastructure. Opportunities for investment within the current price control period should be identified by summer 2019.

The government fully endorses this recommendation.

1.118 Ofgem already sets outputs for the network companies. This includes setting expectations on standards of connection services, delivering investment, encouraging innovation and engagement with relevant stakeholders, including chargepoint operators.

1.119 Ofgem published its draft determinations for its RIIO-2 electricity transmission price controls on 9 July, ahead of the final determinations in December 2020. Through this, and consultation on the electricity distribution price control (RIIO-ED2) methodology, Ofgem sought views from stakeholders on what network company priorities should be, including in relation to strategic investment for the EV transition, balancing the need for potential investment against the risk of stranded assets.

1.120 Ofgem has worked with network companies to design the RIIO-2 framework in a way that supports the transition to net zero greenhouse gas emissions while minimising costs for consumers. Ofgem has been clear that it expects industry to engage closely with local partners and stakeholders (including chargepoint providers) when considering investment needs, and Ofgem welcomes network operators identifying potential investments as part of their business plans.

1.121 It is Ofgem's view that this process will need strong central coordination between a range of parties and is examining options on how to achieve this.

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30 'Energising our electric vehicle transition', EV Energy Taskforce, January 2020.

1.122 Distribution network operators also took EV forecasts into account when developing their plans for the first RIIO price control period. They received funding to upgrade the network, including for works to accommodate public EV charging infrastructure, and Ofgem's mid-period review for RIIO determined that the existing framework was sufficient to accommodate the uptake of EVs through to 2023.

Recommendation 33: The government should place a requirement on local authorities to work with charge point providers to allocate 5% of their parking spaces (including on-street) by 2020 and 20% by 2025 which may be converted to electric vehicle charge points.

1.123 As local authorities manage 98% of UK roads, they will be central to ensuring that there are enough chargepoints for all vehicles to transition to zero emission.[31]

1.124 The government wants to ensure that availability of charge points is not a barrier to the uptake of electric vehicles, including for those without access to off-street parking. National planning policy already requires that local parking standards take into account adequate provision of spaces for charging.

1.125 It is not yet clear whether large numbers of lower powered on-street chargers, or fewer local high-powered charging hubs, represent the best model for consumers. It is quite likely that local circumstances will determine what is most appropriate for local areas. It is therefore premature to specify a specific number of chargepoints per parking space in local authority areas.

1.126 However, the government is already taking action to ensure sufficient chargepoint provision. The government consulted on requiring all new non-residential properties, with more than 10 parking spaces, to have at least one chargepoint and cable routes for a further one in five spaces. The government will respond to the consultation shortly, with regulations being laid in 2021.

1.127 Local chargepoint infrastructure will need to be tailored to meet the needs of residents. Local authorities, with central support, should take a leading role in considering the appropriate number of chargepoints in their car parks, dependent on local needs and other charging infrastructure in the area.

Recommendation 34: The Commission recommends that government should subsidise, by 2022, the provision of rapid charge points in rural and remote areas, where the market will not deliver in the short term.

The government mostly endorses this recommendation.

1.128 The government has been clear that access to charging infrastructure should not be a barrier to purchasing an electric vehicle and, where the market cannot deliver, the government will intervene.

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31 'Technical Note: Road Condition and Maintenance data', Department for Transport, October 2019

1.129 The government will invest £950 million to future-proof grid capacity on motorways and major A roads to prepare for 100% uptake of cars and vans ahead of need. This will support the private sector to roll out high-powered charging hubs at every motorway service area and key A road service areas, many of which are in rural areas.

1.130 Local authorities in rural areas are also eligible to apply to the On-Street Residential Charging Scheme for grants to install public chargepoints in residential areas. The vast majority of rural dwellings have off-street parking. These EV drivers benefit from the Electric Vehicle Homecharging Scheme, which provides a discount to the cost of installing a home charger.

Recommendation 35: The Government should establish a centre for advanced transport technology in the Department for Transport to bring together work on technological innovation and ensure its implications are central to future investment proposals. This should include developing and overseeing the Commission's proposed connected and autonomous vehicles framework.

1.131 The Centre for Connected and Autonomous Vehicles already coordinates the wide-ranging, cross-government 'Future of Transport' programme. The programme is overseen by a steering group and supported by an advisory panel, bringing together all relevant teams within government. Alongside technology-focussed workstreams, the programme also considers built environment preparations, how to maximise mobility transformation and how to ensure that future thinking is incorporated into major decisions.

1.132 The government is developing the use of scenario analysis in both strategic forecasts and scheme appraisal to understand the impact of different potential scenarios on future transport demand. This workstream aims to embed these methods into departmental culture, processes and practices.

1.133 To be effective, the programme needs to mainstream thinking on the 'Future of Transport' into existing work. If a separate unit was established, it risks isolating these issues, and a new unit would also incur costs to establish and run, representing a poor value for money approach given the effectiveness of the current programme.

Transport and housing for thriving city regions

Recommendation 36: The Commission recommends that government should make £500 million a year of funding available from 2025/26 to 2034/35 for local highways authorities to address the local road maintenance backlog.

The government mostly endorses this recommendation.

1.134 The government recognises the role of well-maintained local roads in supporting safer, quicker journeys for all road users and agrees that local highways authorities should be empowered to address the local roads maintenance backlog. This is why the government has committed to £1.125m for local roads maintenance in 2021-22, an uplift on historical levels of funding, including £500m of the Potholes Fund. Local authorities will decide how best to deploy funding, taking local needs and priorities into account. The government expects it will go towards a range of critical activities such as fixing potholes, resurfacing roads and supporting major repairs and renewals.

Recommendation 37: The Commission recommends that cities should have the powers and funding they need to pursue ambitious, integrated strategies for transport, employment and housing.

and:

Recommendation 38: By 2021, metro mayors and city leaders should develop and implement long-term integrated strategies for transport, employment and housing that will support growth in their cities.

and:

Recommendation 39: By 2021, government should ensure city leaders have the right powers to deliver these integrated strategies, including the power for metro mayors to make decisions on major housing development sites.

The government partially endorses the first recommendation, mostly endorses the second and partially endorses the third.

1.135 37% of England's population is now served by a Combined Authority Mayor or the Greater London Assembly – growing to 41% once the West Yorkshire Devolution Deal is enacted.

1.136 Combined Authority Mayors typically already have significant powers over transport, skills and regeneration as well as control over investment funding. Some are also able to develop evidence-led planning and infrastructure strategies over the entire functional economic area. This maximises the potential for infrastructure to boost economic growth, increase earning power, and align local integrated strategies for transport, employment and housing with other local and regional growth plans.

1.137 The government wants to continue to build on the success of directly elected mayors, and will be setting out further detail in the Devolution and Local Recovery White Paper.

Recommendation 40: Government should set out devolved infrastructure budgets for individual cities for locally determined urban transport priorities in line with the funding profile set out by the Commission. Budgets for 2021-2026 should be confirmed by mid-2019. Government should pass legislation, by 2020, requiring cities to be given regular five-year infrastructure budgets.

The government partially endorses this recommendation.

1.138 The government agrees on the need for higher, long-term and locally-led funding to support cities outside London to level up their local transport networks.

1.139 This is why the £2.5 billion Transforming Cities Fund was set up in 2017 to deliver transformative investment in up to 18 of England's largest city regions up to 2022-2023. At Spring Budget, the remaining £1.2 billion was allocated to nine city regions for a range of shovel-ready public and sustainability transport schemes, following a competitive bidding process. Alongside this, the government confirmed £4.2 billion long-term intra-city transport settlements for the largest cities outside London.

Recommendation 41: Government should allocate significant long-term funding for major capacity upgrades in selected growth priority cities, in line with the funding profile set out by the Commission. Cities benefiting from major projects should make commitments on housing delivery and provide at least 25% of funding. Priority cities should be identified by mid-2019, with long term investment commitments agreed by 2020. Future rounds should take place no more than twice a parliament.

The government partially endorses this recommendation.

1.140 The government agrees that upgrading transport infrastructure in the largest cities is vital to levelling up every region of the country. Through major infrastructure projects such as HS2, intra-city transport settlements and city deals, the government has already committed significant funding for improved transport across cities.

1.141 Building on the Transforming Cities Fund, the government has committed £4.2 billion for long-term intra-city transport settlements for eight city regions outside London – Greater Manchester, West Midlands, Leeds City Region, Liverpool City Region, West of England, Tyne and Wear, Sheffield City Region and Tees Valley. This, along with funding allocated at Budget 2020, such as the £400 million Brownfield Fund for Mayoral Combined Authorities (MCAs), means that city regions can improve their transport connectivity and stock of housing.

1.142 Intra-city transport settlements will be conditional on appropriate governance being put in place to ensure transparency and accountability to the public, including an elected mayor. The government intends to agree an initial wave of settlements with Greater Manchester, West Midlands and Liverpool City Region next year. These settlements will give mayors greater control and certainty over intracity transport funding and support them to deliver better, more integrated, public transport systems, enabling long-term and locally-led investment in large cities transport networks and devolving decisions to those that understand those networks best.

Reducing the risks of drought and flooding

Recommendation 42: The Commission recommends that government should set out a strategy to deliver a nationwide standard of resilience to flooding with an annual likelihood of 0.5 % by 2050 where this is feasible. A higher standard of 0.1% should be provided for densely populated areas where the costs per household are lower.

1.143 The government agrees with the NIC's conclusion that while it will never be possible to prevent all flooding, the government should support communities to increase their resilience. In July 2020, the Secretary of State for the Environment wrote to the NIC alongside the publication of the government's long-term Policy Statement on flood and coastal erosion risk management.[32] This letter and the Policy Statement set out the government's ambition to create a nation more resilient to future flood and coastal erosion risk. The Policy Statement outlines five ambitious policies and over 40 supporting actions to better protect and prepare the country against flooding and coastal erosion.

1.144 Having considered the NIC's work on resilience, the Policy Statement sets out an alternative approach, which does not include resilience standards, but embraces the vision to build resilience everywhere. The actions the government is taking will drive progress and maximise the effectiveness of investment.

1.145 The government will enhance cost-benefit appraisal techniques prioritising and targeting flood funding for maximum benefit – taking account of the full range of resilience actions, both individually and in combination. The government will also develop new indicators to monitor trends over time, enabling better understanding of the impacts of its policies. The indicators will include the local picture, providing information needed to drive progress at a local level, recognising the different challenges faced across the country. In addition, the government will improve reporting of national and local progress so that it is clearer and more accessible.

Recommendation 43: By the end of 2019, the government should put in place a rolling six-year funding programme in line with the funding profile set out by the NIC. This should enable efficient planning and delivery of projects and address the risks from all sources of flooding.

The government mostly endorses this recommendation.

1.146 The government recognises that longer-term certainty of funding can unlock greater efficiency in infrastructure investment. At Budget 2020 the government announced that, from 2021, the amount invested in the flood and coastal defence programme in England will double to £5.2 billion over six years, providing over 2,000 new defence schemes to better protect a further 336,000 properties. This will reduce national flood risk by up to 11% by 2027 helping to avoid £32 billion of wider economic damages – benefitting every region of the country. This exceeds the level of investment

[32] 'Flood and coastal erosion risk management - policy statement', Department for Environment, Food and Rural Affairs, July 2020

recommended by the NIC, underlining this government's commitment to create a more resilient nation.

1.147 However, the government does not agree that a rolling programme is necessary to ensure that value for the taxpayer is being delivered. Providing medium-term certainty of funding through a series of multi-year programmes allows for greater assurance on the pipeline of potential schemes eligible for investment and provides greater ability to track success against specific outcomes and metrics. In recognition of the need for a smooth transition between each period of investment, the government brought forward £100 million of the funding from the next period into 2020-21 for preparatory work. This work has the benefit of delivering an extra 10% properties better protected by 2027 for the same amount of overall funding.

Recommendation 44: The Environment Agency should update plans for all catchments and coastal cells in England before the end of 2023. These should identify how risk can be managed most effectively using a combination of measures including green and grey infrastructure, spatial planning and property level measures.

The government mostly endorses this recommendation.

1.148 The government's Policy Statement outlines its commitment to transform local flood and coastal erosion risk planning by 2026 so all areas of England will have a strategic and comprehensive plan that drives long-term local action and investment.

1.149 The government will encourage a catchment or place-based approach to local planning for flood and coastal erosion risk management which considers all actions which could be taken in an area, upstream and downstream by responsible bodies, communities and individuals. This means having the right combination of actions and funding sources and looking at the whole of an area from source to sea.

1.150 The 'Flood Risk Regulations 2009' set out the current statutory process for regional flood risk planning over a six-year cycle. The Environment Agency is working with Lead Local Flood Authorities (LLFAs) to refresh the Flood Risk Management Plans (FRMPs) for all River Basin Districts that include Flood Risk Areas (encouraging FRMPs on a voluntary basis where they do not). This will aim to improve local flood risk management planning and will inform the government's long-term commitment to transform local flood risk planning.

1.151 Separately, the Environment Agency is working closely with coastal authorities on a three-year, £1 million refresh of Shoreline Management Plans (SMPs), to ensure that they are up to date and using the best evidence. Informed by the Environment Agency's refresh of technical evidence supporting SMPs, the government has also committed to review national policy for these to ensure plans are transparent, continuously review outcomes and enable local authorities to make robust decisions.

Recommendation 45: Water companies and local authorities should work together to publish joint plans to manage surface water flood risk by 2022.

The government fully endorses this recommendation.

1.152 The government recognises that surface water is a growing challenge and the Policy Statement outlines its commitment to continue to enhance local understanding of surface water flood risk and promote actions which can help prevent and better manage the potential impacts of surface water flooding. The 'Surface Water Management Action Plan' sets out the actions the government is taking, with the Environment Agency and others, to join up planning for managing surface water risk and improve surface water data, mapping and planning.

1.153 The government's Environment Bill proposes to require water companies to produce a drainage and sewage management plan at least every five years, to assess risks to their sewerage networks and network capacity. This will help to enable improved long-term planning to a consistent, minimum standard.

1.154 The government agrees that effective joint working between all those with a part to play – including local authorities, water companies, private business, individuals and other risk management authorities – is essential to tackle surface water flood risk. To support this, the government has commissioned an independent review to further consider surface water and drainage responsibilities. This report was published in August 2020 and 12 of the recommendations have been immediately accepted which will ensure better understanding of surface water flood risk by all authorities and a more coordinated and efficient approach across England.[33]

Recommendation 46: The Ministry of Housing, Communities and Local Government and planning authorities should ensure that from 2019 all new development is resilient to flooding with an annual likelihood of 0.5% for its lifetime and does not increase risk elsewhere.

The government mostly endorses this recommendation.

1.155 Flood risk is already considered using Environment Agency flood maps to determine where development may be at risk of flooding. Development is deemed at risk when the risk is above a 1% annual likelihood from fluvial sources, and 0.5% from sea flooding, with allowances factored in to take account of climate change. Allowances that consider the future impacts of climate change on flood risk incorporate a precautionary risk-based approach for more vulnerable areas. This means that in practice increased levels of resilience are factored in.

1.156 The planning system already helps to protect people and property from flooding. Since publication of the NIA, the government has already acted on this recommendation by revising the 'National Planning Policy Framework'

33 'Surface water and drainage: review of responsibilities', Department for Environment, Food and Rural Affairs, August 2020

(NPPF) to clarify the already strong planning safeguards that are in place, and to remove uncertainty.[34]

1.157 Going further, in March 2020, the government committed to review policy for building in flood risk areas. This will assess whether current protections in the NPPF are enough and consider options for further reform. This supports the commitment in the government's Policy Statement on flooding and coastal erosion to ensure that planning policy is appropriately applied and implemented on a consistent basis.

1.158 In August 2020, the government published a white paper setting out proposals for reforming the planning system in England.[35] These proposals ensure that new homes meet the government's climate change and environmental objectives. The NPPF will be revised to ensure policies support climate change mitigation and adaption (including tackling flood risk), helping to ensure that new properties and infrastructure are resilient to flooding and coastal erosion.

Recommendation 47: The Commission recommends that government should ensure that plans are in place to deliver additional supply and demand reduction of at least 4,000 Ml/day. Action to deliver this twin-track approach should start immediately.

The government fully endorses this recommendation.

1.159 The government welcomes the NIC's recommendation and is putting measures in place to deliver the required supply increases and demand reductions to increase the resilience of water supplies.

1.160 Water companies are responsible for planning to meet future supply requirements through the production of water resource management plans. For the next round of plans due in 2024, the government will require the water industry to plan to deliver resilience to a 1 in 500-year drought.

1.161 The Environment Agency published a National Framework for water resources in March 2020, providing guidance on future water resource need nationally and regionally.[36] It will support water companies to plan regionally and with other sectors to achieve the right balance of measures to increase resilience. The framework identified that the volume required to achieve resilience to a 1 in 500-year drought will be closer to 3,435 million litres per day than the 4,000 million litres per day identified by the NIC. This reflects both an update to the baseline used by the NIC and the expected position at the end of the next investment period in 2025.

1.162 As well as new infrastructure, the government recognises that demand on water supply must be tackled through reducing the amount of water lost through leaks and reducing the volume consumed by customers. The government is exploring the possibility of a statutory target to reduce water demand using powers in the Environment Bill. This would be on the volume

34 'National Planning Policy Framework', Ministry for Housing, Communities and Local Government, February 2019

35 'Planning for the Future', Ministry for Housing, Communities and Local Government, August 2020

36 'National Framework for Water Resource', Environment Agency, March 2020

of water distributed or abstracted by water companies, encompassing household use, non-household use and leakage.

Recommendation 48: Ofwat should launch a competition process by the end of 2019, complementing the Price Review, so that at least 1,300 Ml/day is provided through (i) a national water network and (ii) additional supply infrastructure by the 2030s.

The government mostly endorses this recommendation.

1.163 The government agrees with the NIC that more supply infrastructure will be required. The government is clear that more effective sharing of water resources is needed and it expects the development of shared multi-party resources and water transfers between companies and regions where appropriate. This includes exploring innovative cross-sector options that bring broader social benefits. The more strategic approach to water resource management planning will identify the most effective combination for each region.

1.164 Analysis of the latest round of water resource management plans has identified infrastructure that can provide an additional 1,200 million litres per day. This is the amount required between now and 2050. Much of this additional amount will be available to use by the 2030s.

1.165 During its final determination of the 2019 price review process, Ofwat intervened making £469 million available to accelerate the development of strategic supply options. This allows companies to undertake design, planning and procurement work to enable schemes to be construction ready early in the 2025-30 period. There are 17 strategic supply options being considered.[37]

1.166 Ofwat has established the Regulators' Alliance for Progressing Infrastructure Development (RAPID) to support this process and overcome barriers which might hamper the development of these strategic schemes. The Environment Agency's National Framework for water resources complements the work of RAPID by setting out the scale of action needed to ensure resilient water supplies are available to meet the needs of all users in the future.

Recommendation 49: The Department for Environment, Food and Rural Affairs should set an objective for the water industry to halve leakage by 2050, with Ofwat agreeing 5-year commitments for each company (as part of the regulatory cycle) and reporting on progress.

The government fully endorses this recommendation.

1.167 The government endorses the NIC's recommendation and industry has committed to reduce leaks by 50% by 2050.

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37 'PR19 final determinations', Ofwat, December 2019

1.168 Reducing leaks ensures that more of the water treated every day can be used for its intended purpose. It also means that more raw resources can be left for the environment or saved for when it is needed most.

1.169 There will always be a balance to be struck between the cost of addressing leaks and the cost of other measures to maintain sufficient supplies of water. However, the government considers more can be done to reduce the significant loss from leaks. Currently, one fifth of supply, around 3,000 million litres, is lost per day.[38]

1.170 As part of the 2019 Price Review, Ofwat set a target of at least a 15% reduction per company by 2025 – as an important first step toward the long-term goal. Ofwat will agree further targets to reduce leaks at each Price Review and continue to challenge companies, taking into account advances in technology and the best available evidence on leakage reduction.

1.171 The water companies' business plans propose an average of 16% reduction across the sector by 2025. This overall target includes leakage through customer side leaks, as approximately a quarter of leakage is lost through customer supply pipes and fittings in the home. Fixing these leaks is the responsibility of customers. However, some companies offer a free or subsidised repair of supply pipes. Further support for customers may form part of the solution and was considered as part of the government's recent consultation on measures to reduce personal water use.

1.172 The government believes that a significant increase in collaboration and innovation will be necessary to achieve continued improvements in leakage performance throughout the supply system. The ambitious long-term target creates the space in which to do this.

Recommendation 50: The Department for Environment, Food and Rural Affairs should enable companies to implement compulsory metering by the 2030s beyond water stressed areas, by amending regulations before the end of 2019 and requiring all companies to consider systematic roll out of smart meters as a first step in a concerted campaign to improve water efficiency.

The government partially endorses this recommendation.

1.173 The government supports reducing personal consumption of water and recognises that metering can support this.

1.174 In 'Preparing for a drier future', the NIC identifies 118 litres per person per day by 2050 as a technically feasible level of consumption to achieve, a reduction from the current average of 141 litres per person per day, and recommends compulsory metering as a means of achieving this target.[39] However, the government recognises there are many other ways to reduce consumption and wishes to fully explore these options before deciding on the best approach for doing so.

38 'Water conservation report', Department for Environment, Food and Rural Affairs, December 2018

39 'Preparing for a drier future', National Infrastructure Commission, April 2018

1.175 The 2018 'Water Conservation Report' to Parliament shows that currently just over half of properties are metered.[40] Water company plans show this will increase to 84% by 2045. The NIC believes that its recommendation on compulsory metering could increase this to 95% by 2050.

1.176 The most recent water resource management plans show that, even in the current regulatory environment, companies expect to reduce consumption to an average of 120 litres per person per day by 2045. The Environment Agency's National Framework for water resources takes achieving 110 litres per person per day by 2050 as its planning assumption.[41]

1.177 The government ran a consultation and call for evidence in 2019 to seek views and evidence on a range of measures to reduce personal water consumption, including changes to the current approach to metering.[42] Choosing the right mix of acceptable measures will be vital to increasing the resilience of water supplies. The government will announce its next steps to reduce per capita consumption in 2021.

40 'Water conservation report', 2018', Department for Environment, Food and Rural Affairs, December 2018

41 ibid

42 'Water conservation: measures to reduce personal water use', Department for Environment, Food and Rural Affairs, July 2019

Choosing and designing infrastructure

Recommendation 51: The Commission recommends that government should publish good quality data on infrastructure costs and performance. All public bodies taking decisions on strategic economic infrastructure should publish the forecast costs and benefits of their major infrastructure projects at each appraisal stage and at a suitable point after completion, by the end of 2019. The Infrastructure and Projects Authority should work with departments to ensure that costs are comparable between sectors.

The government mostly endorses this recommendation.

1.178 The government shares the Commission's view that good and transparent data is critical to:

- selecting the right projects at the outset
- enabling robust scrutiny from decision-makers, parliament and the public ahead of and during delivery
- supporting effective monitoring and evaluation of performance once a project is complete to learn 'what works' for the benefit of future projects

1.179 Greater transparency around the appraisal and decision-making process will also build capability by demonstrating what 'good looks like' and is critical to embedding the changes set out in the government's review of the Green Book.

1.180 The National Infrastructure Strategy sets out a new requirement for all major infrastructure projects to publish cost and performance data at three key stages of their life cycle.

1.181 From April 2021, all infrastructure projects on the Government's Major Projects Portfolio (GMPP) will begin publishing:

- a summary of their business case within four months of receiving final approval
- a close out report within six months of completing construction, reporting the outturn cost and schedule and identifying best practice and lessons learned to apply to future projects
- an evaluation of the long-term economic and social benefits of the scheme between five and ten years after project completion, working with the Commission to build the evidence base for future National Infrastructure Assessments

1.182 To ensure the comparability of costs between sectors, the IPA will establish a new benchmarking hub and data platform in 2021. This will give projects access to actual outturn cost and performance data from similar projects to use when developing their own estimates, helping to ensure projects are realistic and achievable at the outset.

Recommendation 52: The Commission recommends that design should be embedded into the culture of infrastructure planning, to save money, reduce risk, add value, support environmental net gain and create a legacy that looks good and works well, by:

Recommendation 53: Government ensuring that all Nationally Significant Infrastructure Projects, including those authorised through hybrid parliamentary bills, have a board level design champion and use a design panel to maximise the value provided by the infrastructure.

and:

Recommendation 54: Design panels for nationally significant infrastructure projects having regard to design principles to be published by the National Infrastructure Commission based on advice received from the national infrastructure design group.

The government mostly endorses these recommendations.

1.183 The government welcomes the NIC's design principles and is committed to embedding good design in all major infrastructure projects. Good design is critical to delivering user satisfaction; social, environmental and economic benefits; and value for money in infrastructure projects. The government also recognises the importance of design for wider environmental considerations alongside climate, as demonstrated by the 25 Year Environment Plan commitment to embed a principle of environmental net gain for development.[43]

1.184 The government will continue to emphasise the importance of design through the NPPF, Planning Practice Guidance and encourage the explicit consideration of design in National Policy Statements (NPSs), where these are being reviewed or newly created.

1.185 Infrastructure projects are promoted by a broad spectrum of organisations, including government departments, arm's-length bodies, joint ventures and private businesses. Many delivery bodies, such as Highways England, High Speed 2 Ltd and Network Rail, have already established, or are establishing, design principles and panels, and are including design in their decision making.

1.186 The government expects all infrastructure projects to have a board-level design champion in place by the end of 2021 at either the project, programme or organisational level, supported where appropriate by design panels. Such panels should include members with a broad range of skills and expertise. These design champions and panels should work closely with the NIC and the Design Group to consider how their principles can be effectively and proportionately embedded in the UK's infrastructure system and share good practice.

1.187 Infrastructure projects must demonstrate how they intend to deliver and create better designed infrastructure as part of their assurance and approval process. The use of design champions and the NIC's design principles will be embedded in the IPA's delivery support and assurance regime for scrutiny throughout the project life cycle.

[43] '25 Year Environment Plan', Department for Environment, Food and Rural Affairs, January 2018.

Funding and financing

Recommendation 55: The Commission recommends that government should deliver long term certainty over infrastructure funding by adopting the funding profile set out in the 'fiscal remit' table in Spending Review 2019 and other future spending plans.

The government partially endorses this recommendation.

1.188 The government agrees that delivering long-term certainty over infrastructure funding is important. That is why alongside setting the budget for next year, the Spending Review announces longer-term, sustained budgets for key capital programmes and projects across economic and social infrastructure.

1.189 This includes funding for HS2 – the biggest infrastructure project in Europe – and record levels of investment for multi-year programmes on strategic roads, flood defences and broadband.

1.190 The government has also set out its medium-term plans for capital spending – with over £600 billion of public sector investment in this parliament. Allocation within this will be confirmed at future Spending Reviews.

1.191 It is important that the NIC's fiscal remit reflects the government's infrastructure ambitions. However, given the current economic climate and recent GDP volatility, now is not the right time to definitively update the remit. Instead, the government will review the NIC's fiscal remit in detail next year, to ensure it reflects the government's ambitions on infrastructure as the NIC prepares to publish its second National Infrastructure Assessment. In the meantime, the government will maintain the NIC's fiscal remit at a minimum of 1-1.2% of GDP.

Recommendation 56: The Commission recommends that government should maintain access to the European Investment Bank if possible. If access is lost, a new, operationally independent, UK infrastructure finance institution should be established by 2021. To enable this, government should consult on a proposed design of the new institution by spring 2019. The consultation should cover the following:

Recommendation 57: Functions, including provision of finance to economic infrastructure projects in cases of market and coordination failures; catalysing innovation; and acting as a centre of excellence on infrastructure project development, procurement and delivery.

and:

Recommendation 58: A clear mandate, including sound banking, additionality and having a wider economic and social impact.

and:

Recommendation 59: Governance to safeguard the operational independence of the institution.

The government fully endorses these recommendations.

1.192 Following the NIC's recommendation, the government carried out an 'Infrastructure Finance Review', publishing a formal consultation in spring

2019. The review covered a broad range of infrastructure finance related issues, including the UK infrastructure finance market, future challenges (including the impact of new technologies), investment models, existing financing tools, and governance. The government has published its response to the 'Infrastructure Finance Review' alongside the National Infrastructure Strategy.

1.193 The UK has now left the European Union and the European Investment Bank (EIB) Group. The UK remains open to exploring options for a future relationship with the EIB Group, but the UK also needs to develop independent and enduring institutions to support and deliver its domestic priorities.

1.194 The government has therefore announced the intention to establish a new national infrastructure bank for the UK, operating from spring 2021, in the National Infrastructure Strategy.

1.195 The National Infrastructure Bank's purpose will be to provide targeted support to projects that aid the government's objectives on net zero and economic growth. The institution will focus on economic infrastructure and will help to address market failures to develop new and innovative technologies. It will be headquartered in the north of England and will operate across the whole of the UK. The government will engage with stakeholders and will set out comprehensive details regarding the operations, mandate and scale of the bank at Budget 2021.

Recommendation 60: The Commission recommends that local authorities should be given further powers to capture a fair proportion of increases in the value of land from planning and infrastructure provision.

The government fully endorses this recommendation.

1.196 The government is committed to capturing increases in land values to reinvest in local infrastructure, essential services and housing. This will make it more certain that communities benefit from the land value uplift that arises from regeneration and development.

1.197 The government's response to the NIC's specific recommendations, which cover mechanisms to capture the uplift in land values through the planning system, business rates and council tax, are set out below.

Recommendation 61: The government should remove pooling restrictions on Section 106 in all circumstances, through forthcoming secondary legislation by 2020.

The government fully endorses this recommendation.

1.198 In September 2019 new regulations came into force to make the current system of developer contributions in England simpler, fairer and more transparent. As part of these reforms the government removed the 'pooling restriction' on how planning obligations can be used, in line with this recommendation.

1.199 As part of the 'Planning for the future' consultation government has set out more ambitious proposals for replacing the current system of developer contributions.[44] The consultation proposes introducing a consolidated Infrastructure Levy which would replace the existing Section 106 and Community Infrastructure Levy regimes.

1.200 The Infrastructure Levy would be payable on completion of development and local authorities would be allowed to borrow against revenue from the levy, and to require delivery of in-kind contributions where appropriate. This will give local authorities flexibility to secure the infrastructure needed in a local area.

Recommendation 62: The government should remove the ballot requirement for upper tier authorities' powers to levy a business rate supplement of 2p or less in the pound for infrastructure, except where the supplement exceeds one third of scheme costs by 2021.

1.201 The Business Rate Supplements Act 2009 provides powers for all upper tier authorities to introduce a supplement. This settlement is paid by local businesses to deliver projects that promote economic growth.

1.202 Before any such supplement proposal can be put in place, it needs to be subject to a ballot of affected businesses and achieve a majority both of those voting, and the rateable value of those voting.

1.203 The ballot arrangements provide a mechanism to demonstrate support for a proposal and encourage schemes to be developed in conjunction with businesses priorities. It is important for local authorities to engage with businesses and ensure there is support for proposed schemes.

Recommendation 63: The government should give local authorities powers to levy zonal precepts on council tax, where public investments in infrastructure drive up surrounding property values by 2021.

1.204 Council tax is based on property values, and the provision of infrastructure may impact on values in different and complex ways. The government does not believe that a zonal precept is a practical way of capturing the benefits of any uplift.

1.205 Zonal precepts would disturb the general basis upon which council tax operates, particularly in relation to the valuation bands which apply consistently across England.

1.206 Council tax provides part of the revenue which local authorities need to provide local services and amenities. The amount due is not adjusted to reflect the specific level of provision each resident receives. Instead, the level of council tax helps the authority to consistently make a broad range of services available to the wider community in its area. Although council tax levels are a matter for local authorities, the government maintains a

[44] 'Planning for the Future', Ministry for Housing, Communities and Local Government, August 2020

referendum threshold to allow taxpayers the final say over excessive increases.

1.207 The definition of the precept zones and the associated determination of the degree to which the value of a property is benefitting from infrastructure would be highly complex and liable to formal challenge by taxpayers, with potential knock-on impact on collection rates. It would also create additional burdens for local authorities and for the Valuation Office Agency and Valuation Tribunal who would be responsible for arbitrating valuation disputes.

Recommendation 64: The government should provide greater certainty in compulsory purchase compensation negotiations by including independent valuations early in the process to be paid for by the acquiring authority by 2021.

The government partially endorses this recommendation.

1.208 The government supports the overall intent of this recommendation. Where land is subject to compulsory purchase, negotiations over compensation can become entrenched. This may prolong the process, increasing costs for both acquiring authorities and claimants, particularly where claims need to be settled at the Upper Tribunal (Lands Chamber).

1.209 The government agrees that independent valuations, carried out at an early stage in the acquisition process, may help engender trust between parties and set more realistic expectations as to the amount of compensation owed. This would ultimately enable claims to be settled more swiftly.

1.210 Further consideration will need to be given to the potential costs and benefits of this proposal and how it might be implemented in practice. The government intends to publish proposals in the new year for consultation, including potential further reforms to the land compensation regime so it is fairer and easier to reach agreement.

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