

ENGLAND'S ECONOMIC HEARTLAND IDENTIFYING THE BARRIERS TO DELIVERY OF STRATEGIC INFRASTRUCTURE GOVERNED BY REGULATORY FRAMEWORKS

Summary

- 1 The Oxford-Milton Keynes-Cambridge Growth Corridor represents 5.1 million people and 280,000 businesses employing 2.5m people, all of which are reliant on effective and efficient infrastructure. The current GVA across the EEH area is £150bn per annum with the potential of an additional £85 - £163bn GVA per annum.
- 2 However, business growth is currently constrained by strategic infrastructure which is nearing capacity. In order to realise the economic potential and raise productivity in the Heartland, there is a need for wider strategic infrastructure investment, aligned across all sectors. Stable and consistent regulatory frameworks will also help to enable long-term investment, innovation and security.
- 3 This report identifies the opportunities and barriers to strategic utility infrastructure delivery governed by the existing regulatory framework and how it affects infrastructure delivery in the Heartland. It was compiled following an assessment of the regulatory regimes for each sector, and engagement with key stakeholders, including local authorities, LEPs, regulators, central government and utility providers.
- 4 The review has identified that there is a disconnect in the governance of the different sectors involved in utility provision, with national and local government, regulators and utilities working to different time frames from each other and taking account of different factors. Utilities report having the same conversation in parallel with different authorities across the region. Stakeholders considered that the Joint Statutory Spatial Plans being developed in Oxfordshire and in Cambridgeshire and Peterborough could be developed further across the Heartland to guide and co-ordinate an integrated infrastructure development approach. Further cross-boundary work could be achieved by establishing a Strategic Infrastructure Delivery Board, comprising representatives from across the Heartland to agree on governance, assessment, coordination and enablement of required infrastructure. This Delivery Board could lead to more effective dialogue with central Government and other strategic bodies, but there needs to be clarity about the Heartland's ambitions and objectives for it to be most effective.
- 5 Regular dialogue with central government departments and at Ministerial level can help England's Economic Heartland (EEH) to influence the guidance issued to regulators ahead of forthcoming price control periods that would facilitate the delivery of infrastructure in the Heartland region. Political champions for the EEH can also be identified to make the case for infrastructure investment in the region. Other sub-national bodies can also help reinforce this.
- 6 The main impediment to the advance delivery of strategic infrastructure appears to be the regulatory framework for utilities, particularly the price control mechanisms. These do not

- easily allow utilities to recover their expenditure on infrastructure enhancements unless they can demonstrate both a clear need for the enhancements, and that they were carried out efficiently.
- 7 A variation of Tax Increment Financing, based on pooling retained business rates, could potentially be used to finance public infrastructure, including utilities. For instance, EEH could consider a model under which a guarantee is provided to guard against the risk that infrastructure provided by utilities to meet anticipated demand ends up not being used as heavily as expected, and so regulators take the view that the full costs of providing the infrastructure should not be met by consumers. The guarantee could potentially be funded by a loan repaid from TIF/CIL/s.106 contributions. More generally, EEH should continue to make the case that prioritising and aligning strategic infrastructure will help enhance economic growth and benefits.
 - 8 Alternatively, a prospectus approach to infrastructure funding could be implemented through land value capture, modelled on the Milton Keynes Tariff.
 - 9 Builders have claimed that the process and time it can take to make utility connections is one of the more significant delays in providing new homes, and have estimated it can in some cases, add a three to six month delay after construction has started. Generally speaking, infrastructure providers benefit from extensive permitted development rights. However, the relaxation of restrictions on permitted development rights for utility provision in connection to new development in the Heartland region could make utility connections easier to provide. In addition, utilities have found that it is difficult to change local planning policy as it needs to be steered by central Government. There is a role for the EEH to provide collective responses to Government consultations and influence national policy and regulation.
 - 10 Stable and consistent regulatory frameworks help to enable long-term investment, innovation and security across infrastructure sectors. However, current infrastructure regulation is often fragmented and siloed between government bodies. Different utilities are governed by specific and different legislative provisions and regulation, which makes co-ordination more difficult and can cause inefficiencies. The right regulatory framework is required to incentivise investment in infrastructure and more consistency is required across sectors to achieve a whole-systems approach. The National Infrastructure Commission (NIC) will be considering these issues and how adaptive regulation could be managed.
 - 11 Long-term big scale developments can also present a challenge when it comes to regulation as the planning timeframes for all parties are different (for instance, regulatory approvals versus land-use planning permission). Certainty is required throughout the planning process. This could be provided by adopting a process in the Heartland that is similar to that for "Projects of Common Interest" under the EU's Regulation on trans-European energy infrastructure (the TEN-E Regulation), which requires designated projects of European importance to be consented within a fixed timescale and following a streamlined procedure.

- 12 EEH could take the lead in pulling agencies into alignment to best serve the needs of the area; in particular by proposing revisions to regulatory requirements that act as barriers to advance delivery of infrastructure. EEH should consider submitting evidence to the NIC's review on regulatory frameworks, when this is made available. EEH should also consider responding directly to each regulator's consultation on forthcoming price control and similar mechanisms.
- 13 In the Energy sector, Distribution Network Operators (DNO), have a monopoly over electricity distribution, so they are subject to strict price control regulations. These price controls are administered and reviewed by eight year periods, which determine how much distribution network operators can invest in their networks, and how much income they can collect from distribution charges over the period. These eight year periods therefore tend to act as default planning periods. In setting these price control mechanisms, Ofgem seeks to incentivise innovative delivery of utilities, but also to protect the consumer from the costs of funding investment in speculative infrastructure that is not ultimately required. This can have the effect of making utilities reluctant to fund such infrastructure as they may not be able to recoup their expenditure unless they can demonstrate a clear need for it. The issue is therefore not always the length of price control periods, but Ofgem's concern to ensure that consumers do not pay for infrastructure that is not needed. However, Ofgem can also use the price control framework to reward utilities for the delivery of Government's social or environmental policies, even where these are not directly related to meeting consumer demands.
- 14 Ofgem is currently updating its price control mechanism, and recognises that this could cause difficulties for the delivery of infrastructure across a period of more than five years. It is therefore considering adapting the use of a mechanism to allow operators to bring forward investment in "strategic wider works" where these have not already been recognised in the price control settlement. This is potentially a mechanism for EEH to encourage the delivery of infrastructure ahead of need in the Heartland area.
- 15 Additionally, as DNOs are statutory consultees for local plans, the proposed Strategic plans could be used to provide further details on forecasting and demand requirements to DNOs so that expectations can be managed effectively. It would also be beneficial if DNOs (and other affected energy providers) were consultees in the planning application process.
- 16 DNO and local authority boundaries do not align. DNOs generally contain multiple counties, but in some cases, several DNOs operate in one county. This rarely causes complexities or challenges. It may be that the border of the DNO has weaker networks, but they all have a duty to provide quotation and delivery to make connections. There are opportunities in bringing the DNOs together with a single strategic forum to improve standards, share best practice and mitigate any cross boundary interaction issues.
- 17 In the water sector, the planning process is split into 5 year "asset management periods" or AMPs. The current period is AMP 6, running from 2015-2020, and AMP 7 will run from 2020-2025. The year before each AMP starts, Ofwat sets out its methodology for that AMP's "Price Review", and water and waste water undertakers are required to submit business plans,

- which Ofwat reviews before setting the prices for that AMP. The business plans must also take into account a longer 25-year water resource management plan into account, approved by the Environment Agency, and showing how the undertakers will ensure an efficient, sustainable secure supply of water over the 25 year planning period. Most are produced on a company-by-company basis, but there is some regional co-operation, include Water Resources South East, which both Affinity Water and Thames Water are party to and which covers the southern parts of the EEH area from Swindon through to Stevenage.
- 18 Ofwat set its methodology for the 2019 Price Review in December 2017, and undertakers are due to submit their business plans by September 2018. Like Ofgem, Ofwat's primary focus is on regulating the prices charged to consumers, and seeking to improve undertakers' performance. The particular focusses for the next AMP are environmental improvements (e.g., reducing leaks), resilience, and affordability. One particular concern for EEH might be that Ofwat is reducing the extent to which undertakers can pass their financing costs onto consumers. While Ofwat justify this by the reduced cost of borrowing, this could make undertakings reluctant to borrow for the purposes of delivering strategic infrastructure.
- 19 When setting price controls, Ofwat must comply with the UK Government's strategic priorities statement (SPS). The current SPS sets no specific objectives in relation to the delivery of infrastructure. Rather, the SPS requires Ofwat to further water supply resilience, through both the planning and delivery of new supply and also measures to improve water efficiency and reduce demand. Ofwat has followed this requirement, by proposing a cost assessment framework that treats demand and supply based solutions neutrally. This may well be appropriate across the country as a whole, but would not encourage new supply, where demand management and improved resilience would be more cost effective. In order to estimate the amount of network enhancements required, water companies should work with local authorities to identify specific needs from development plans. As water companies tend to work at a wider than local authority scale, they could benefit from engaging with a pan-regional strategic forum, to ensure a co-ordinated approach.
- 20 As with Ofgem, Ofwat allows companies to recover "efficient costs" of delivery, but where companies spend more than this to meet their obligations, the responsibility to cover the costs falls on their investors. EEH could push Government to update Ofwat's objectives for the next AMP period, so as to require Ofwat more explicitly to encourage the delivery of strategic infrastructure in the Heartland. Alternatively, EEH should explore whether a different price control mechanism could be adopted for its region, to encourage the advanced delivery of strategic infrastructure – as Ofwat has proposed for the Thames Tideway Tunnel. Ofwat also has a different price control mechanism for large-scale projects. EEH could explore whether Ofwat would consider adopting such an approach for new infrastructure in the Heartland region, irrespective of whether it meets the normal threshold.
- 21 The field of telecommunications (including broadband) primarily relies on competition to deliver consumer benefits and new infrastructure. The Department for Digital, Culture, Media and Sport (DCMS) encourages 'digital local plans' to be devised through collaboration with parties, including local authorities and providers to tackle issues, including street works,

- planning and breaking down internal barriers. Telecommunications operators claim that it is often unclear who in the LAs has overall responsibility for such infrastructure issues and this is unhelpful to the telecommunications companies. DCMS would welcome local 'barrier busters' – a named champion in an LA, who can work across departments and parties.
- 22 DCMS are also working with the telecommunications team in HM Treasury on the issues of broadband, telecommunications and 5G, along with the Department for Transport, with regards to roadworks, and the Ministry of Housing, Communities and Local Government, inputting into the National Planning Policy Framework (NPPF). No 10 have prioritised Housing and Digital as core issues to pursue.
- 23 The NIC have highlighted that if there were a regulatory mechanism to ensure that data about the location of the infrastructure networks is shared with other network operators and utilities then a cross-sector system level view could be taken which could avoid the energy company cutting into the water pipe and cutting off water supply and delaying the connection of additional electricity resource. Regulators should take a more cross sector approach to encourage open data within and across industries to enable greater innovation. EEH could take a role in encouraging this by bringing different industries together on a strategic board.
- 24 As noted above, much of the infrastructure installed by utilities benefits from permitted development, and does not need specific planning permission. Larger development, particularly that involving the construction of new buildings, does require planning permission, in which case it falls to be determined by the local planning authority, in accordance with the NPPF and their Local and in the future Strategic plans. EEH should build on the work being done by Oxfordshire and by Cambridgeshire and Peterborough, to propose strategic spatial frameworks encouraging the delivery of infrastructure to support housing growth that would be taken into account by local planning authorities in the production of their own local plans.
- 25 When the development exceeds a certain threshold, it is classified as a Nationally Significant Infrastructure Project (NSIP), and must be approved by way of a Development Consent Order (DCO), rather than through planning permission. DCO applications are made to the Planning Inspectorate (PINS) and determined by the Secretary of State for the sector concerned, rather than being dealt by local planning authorities. Rather than having to comply with the NPPF and local plans, the Secretary of State must decide the application in accordance with any National Policy Statement (NPS) that is in effect, unless specified circumstances apply. The 11 NPSs in effect at the moment are sector-specific, but it is possible for NPSs to make policy covering infrastructure development in a sub-national region such as the Heartland. As well as its formal function, which is limited to NSIPs, such an NPS could potentially be used as a lever to encourage regulators to take account of the need for the advance delivery of strategic infrastructure in the Heartland region in their price control mechanisms. It would also provide certainty for investors that such infrastructure would be provided. EEH should therefore consider whether to press Government for a Heartland-specific NPS, or to seek to replicate its benefits through other mechanisms – such as Defra's SPS to Ofwat, or a statement of Government policy outside the NSIP framework.

1 Introduction

- 1.1 England's Economic Heartland (EEH) has an important role to play in working with local authorities and Local Enterprise Partnerships (LEPs) in developing and executing an infrastructure strategy across the Oxford-Milton Keynes-Cambridge Growth Corridor. By investing in infrastructure development and delivery, it will help the UK's economic growth and raise productivity.
- 1.2 The region represents 5.1 million people and 280,000 businesses employing 2.5m people, all of which are reliant on effective and efficient infrastructure. The current GVA across the EEH area is 143bn per annum with the National Infrastructure Commission (NIC) identifying an additional £85 - £163bn GVA per annum. However, business growth is currently constrained by the ability to set up and relocate, as well as connect talented individuals to the area
- 1.3 The corridor has already been recognised at national level. EEH has been encouraged to establish itself as a Sub-national Transport body and has financial backing from the Department for Transport (DfT) to advance its overarching transport strategy. The NIC has also reviewed the corridor, in its report, *Partnering for Prosperity: a new deal for the Cambridge-Milton Keynes-Oxford Arc*.
- 1.4 EEH understands the importance of aligning strategic infrastructure across all sectors so that infrastructure investment can be enabled. This includes examining energy, flood risk management and digital infrastructure, as well as transport.
- 1.5 To help EEH achieve these wider objectives, Bircham Dyson Bell have been commissioned to undertake a study to identify the opportunities and barriers to strategic utility infrastructure delivery governed by the existing regulatory framework. Ultimately, the report proposes ways in which discussions between local planning authorities, central Government and utilities suppliers may be taken forward to overcome these challenges, create stronger policies, best practice, further housing and business growth.

2 Methodology statement

- 2.1 The formation of this report has included several key stages:
- Literature review of Government policy reports and key infrastructure reports (please see appendix for further details);
 - Literature review of the legal aspects of the regulatory frameworks (please refer to additional paper provided);
 - Engagement with key stakeholders including local authorities, LEPs, regulators, central government departments and utility providers. This engagement comprised written evidence responses, telephone interviews and face-to-face meetings (please see appendix for further details).

2.2 This report sets out the conclusions of those reviews and the feedback from stakeholders.

3 Governance

3.1 Public sector bodies within EEH have a strong role to play in enabling infrastructure investment and managing the delivery mechanism by:

- Understanding the local dynamics;
- Providing certainty through long-term strategic plans over a 30 year period;
- Co-ordinating local planning activities and project development e.g., SMART Oxford;
- Enabling and removing the barriers to enable infrastructure to be planned and delivered;
- Encouraging partnership working e.g., Low Carbon Oxford;
- Consulting and facilitating stakeholder groups and encouraging the community to be involved;
- Entering the market where private investment is reluctant to invest;
- Developing and supporting delivery and governance models with utility providers.

3.2 For example, LEPs are currently aligning their energy infrastructure strategies, which assess the needs for delivery and investment. .

3.3 Other key players in infrastructure decision-making include regulators and utility providers. Regulators are vital in assessing the needs of the industries they regulate, setting a framework for infrastructure providers to adhere to, as well as informing the policy process. Utility providers are fundamental in delivering timely infrastructure.

3.4 In particular, regulators set the framework for the delivery of infrastructure through their price regulation mechanisms: they identify the types of expenditure for which utilities can be rewarded through consumer bills, and the level of return on their investment that they can expect. There are different regulators in the energy, water and telecommunications sectors, each with different powers, time-frames and objectives. In general, though, the regulators are required to carry out their functions in such a way as to:

- protect the interests of consumers – where appropriate through promoting competition;
- secure that the utilities' statutory functions and licence obligations are properly carried out;

- secure that those activities are properly financed, by allowing the utilities reasonable return on their capital;
 - promote economy and efficiency on the part of the utilities;
 - contribute towards the achievement of sustainable development, and other social or environmental policies identified by Ministers.
- 3.5 The evidence gathered from local authorities has shown that local government growth plans, national targets, and regulators' price control mechanisms work to different timeframes.
- 3.6 In addition, there is currently a governance gap at regional level in order to provide support for private sector infrastructure investment decisions, particularly around utilities. The same conversations are also taking place in parallel between different utilities and different authorities in the Heartland region. Further joint working at a strategic regional level could help to simplify and streamline decision-making.
- 3.7 There is also a need to make the case to fast track infrastructure projects and promote partnership working.
- 3.8 The NIC's *Partnering for Prosperity: A new deal for the Cambridge-Milton Keynes-Oxford Arc* report¹ recommends the need for statutory strategic spatial plans (SSSPs) to outline clear direction to utilities and telecommunications providers. SSSPs aim to establish a 'spatial' vision, specific to areas within this region that can contribute to the achievements of sustainable development. Once produced, they can outline key priorities for investment, particularly in infrastructure, and identify delivery mechanisms to support development.
- 3.9 Cambridgeshire and Peterborough Combined Authority, and Oxfordshire Growth Board are each developing Joint Statutory Spatial Plans (JSSP) for their respective areas. It is expected that other administrative areas will produce similar plans. Stakeholders considered that **these could be developed further across the Heartland to guide and co-ordinate an integrated infrastructure development approach**. This would provide certainty for EEH as a whole and create greater cross-sectoral decision-making on infrastructure projects. It will help set a basis for cross-boundary development and help encourage private infrastructure investment.
- 3.10 **Cross-boundary working could also be furthered by formally establishing a Strategic Infrastructure Delivery Board, comprising representatives from across the Heartland to agree on governance, assessment, coordination and enablement of required infrastructure. Other key players, including regulators and utility providers should feed into the work programme.**
- 3.11 This Board could lead on decision-making on strategic issues, identifying what good looks like, with clarity of roles and responsibilities and a clearly defined list of stakeholders. The

¹ [National Infrastructure Commission - Partnering for Prosperity: A new deal for the Cambridge-Milton Keynes-Oxford Arc](#)

Board could also push central government to adopt particular policies or guidance to regulators that encourages them to facilitate the delivery of strategic infrastructure. Cross-boundary issues can also be addressed, especially on interventions on energy infrastructure delivery, where costs and benefits can be realised over a large spatial geography. Funding bids could also be included as part of the group's priorities, as well as engagement with other key stakeholders.

- 3.12 With clear objectives and a collective voice, this can mean more effective dialogue with central Government and other strategic bodies. Collaboration is key between communities, local authorities, regulatory and delivery bodies, and central government, but with clear lines of accountability to ensure timing and benefits of infrastructure investment are maximized.
- 3.13 Clarity about the Heartland's ambition and objectives are also vital so that other stakeholders are sighted. This will apply to further potential for private investment.

4 Political challenges to infrastructure delivery

- 4.1 Political life cycles are often cited as a major challenge for strategic infrastructure delivery. Commitment to infrastructure investment should ideally go beyond election cycles where the electorate is able to assess future requirements. In addition, while the regulatory frameworks for utilities support long-term investment in infrastructure, price control mechanisms tend to focus on the short-term rather than long-term demand, presenting another challenge for long-term infrastructure delivery.
- 4.2 This is recognised by the National Infrastructure Commission and the National Infrastructure Assessment is due to be published summer 2018.
- 4.3 EEH should make the case that when making political and regulatory decisions on infrastructure, more weight should be placed on the wider transformation of the area, rather than any particular single infrastructure project. Consistency of approach is needed locally and nationally, which means strong relationships need to take place across the corridor and with other cross-border initiatives including the London-Stansted-Cambridge Corridor.
- 4.4 The change in government policies, particularly on fiscal support for certain sectors, also creates uncertainty for investors. **This could be managed by having regular dialogue with central government departments to be kept informed of developments and potential changes. As well as civil service engagement, dialogue should continue with Ministers in order to ensure that civil servants remain aware of the political priority.** Continued engagement at these levels can help EEH to persuade Ministers to issue guidance to regulators ahead of forthcoming price control periods that would facilitate the delivery of infrastructure in the Heartland region.
- 4.5 Any work of the EEH should be complemented by cross-party consensus engagement at all levels of government. Alongside central government discussions, the APPG Oxford-Milton Keynes-Cambridge Corridor is a vehicle that could be used to ensure long-term regular

dialogue in Parliament so that politicians from all parties can continue to discuss the issues that are important in EEH region. This also helps create stronger links between locally elected representatives and Members of Parliament. **Political champions for the EEH can also be identified to make the case for infrastructure investment in the region. Other sub-national bodies can also help reinforce this.**

5 Infrastructure funding and financing

- 5.1 Currently, much of utilities (energy and water) and related major projects are entirely funded by users paying for the use of the infrastructure asset. Regulated water companies will use corporate finance to borrow on their balance sheets and government can also offer financial support through injections and guarantees. Digital communications including broadband sees a mix of funding, tax-incentivised and user charging. Flood risk management and the road and rail networks are publicly owned.
- 5.2 The main challenge remains with the utility providers as the regulatory framework does not easily allow them to place investment ahead of need. In particular, as regulators' primary functions are to protect consumers' interests, they are keen to ensure that consumers do not pay for unnecessary expenditure on infrastructure enhancements. It is therefore difficult for utilities to recover expenditure on enhancements without being able to demonstrate a need for the enhancement (versus, say, delivering the same output through more efficient use of existing infrastructure), and that it was carried out efficiently.
- 5.3 The Government is encouraging more private investment through their Industrial Strategy², outlining that getting the right private investment and regulatory framework can unlock investment in infrastructure and support economic growth. Good digital infrastructure can also open opportunities for growth through better connected business and consumers. There is also a recognition that infrastructure investment can play a key role in encouraging private investment in house building.
- 5.4 New approaches are needed to allow for infrastructure investment, without relying on the public purse, or pay back on that investment. Public sector has a role in facilitating and enabling funding. **Innovative financing models should be considered as part of driving forward EEH's agenda.**
- 5.5 For example, the main challenge for big developments is to become cash positive. There is scope in finding ways in managing the investment approach - by market intervention, local government powers or identifying cash issue earlier in the process and where this is allocated.
- 5.6 The Greater London Authority is working to ensure that investment ahead of need in electricity infrastructure happens, in order to co-ordinate utilities efficiencies and allow for

² [Department for Business, Energy and Industrial Strategy - Industrial Strategy Building a Britain fit for the future](#)

cyclical maintenance. As part of the programme, they found that incentives provided in the regulated utility markets are not working effectively for London. Part of the reason for this is that there are different objectives from all parties, including consumer price pressures and the investment required to maintain, renew and enhance systems.

- 5.7 Other financing models could also be examined by looking at the transport sector, which are featured below.
- 5.8 Nottingham City Council introduced a Workplace Parking Levy (WPL) to tackle the region's traffic congestion. It provides funding for major transport infrastructure initiatives and acts as an incentive for employers to manage their workplace parking provision. The money raised goes towards Nottingham's plans to extend their existing tram system, redevelop Nottingham and provide support to the local bus network. £25million has been raised through this initiative.
- 5.9 Press reports have also suggested that Oxford and Cambridge are also considering the WPL as part of their models, and this could potentially be used to finance transport improvements.
- 5.10 A more general tax increment financing deal (TIF) was agreed between Transport for London, Greater London Authority (GLA), Wandsworth Borough Council and Lambeth Council to extend the London Underground's Northern Line. It saw the GLA take out a loan of up to £1 billion, with repayment guarantee provided by the UK Government, through future growth in business rates revenue from the Nine Elms Enterprise Zone. The Community Infrastructure Levy and developer contributions under section 106 obligations were also used to pay back part of the loan.
- 5.11 TIF, or a variation based on pooling retained business rates, could potentially be used to finance public infrastructure, including utilities. For instance, **EEH could consider a model under which a guarantee is provided to guard against the risk that infrastructure provided by utilities to meet anticipated demand ends up not being used as heavily as expected, and so regulators take the view that the full costs of providing the infrastructure should not be met by consumers. The guarantee could potentially be funded by a loan repaid from TIF/CIL/s.106 contributions.**
- 5.12 Both rail and road sectors work on a fixed five year investment strategy, which helps overcome of the barriers faced by private investment. These can include;
- The need for whole industry support;
 - Lack of certainty and clarity through project development;
 - Level of interaction between projects;
 - Complexity of timescales and processes, such as procurement; and
 - Insufficient skills set in the industry.

- 5.13 **EEH should continue to make the case that prioritising and aligning strategic infrastructure will help enhance economic growth and benefits.** The establishment of regional bodies including Midlands Connect and Transport for the North have also relayed this key message. However, there are some challenges as the types of schemes considered may require legislative change or HM Treasury approvals.

6 The planning process

- 6.1 The National Infrastructure Commission's (NIC) *Partnering for Prosperity: A new deal for the Cambridge-Milton Keynes-Oxford Arc* report³ outlines the need for upfront infrastructure investment to provide clarity and certainty on the delivery, funding and timing of enabling infrastructure (transport, utilities, digital) to move at pace.
- 6.2 The Government has made housing a national priority. In February 2017, the Department for Communities and Local Government published *Fixing our broken housing market*, a White Paper to help boost the supply of new homes in England. The paper highlighted plans for Government to offer a clear framework and simpler plans to help infrastructure providers and utility companies understand the demands made to them.
- 6.3 The Ministry of Housing, Communities and Local Government is currently considering the next steps from the *Better Connected*⁴ report, which sets out a cross-utility guide outlining what developers could expect of utilities and standard procedures and practices from initial scoping to post development.
- 6.4 In March 2018, the Ministry of Housing, Communities and Local Government consulted on a revised draft National Planning and Policy Framework (NPPF). Main changes include a legal requirement to cover key strategic priorities and the need for Statement of Common Grounds to understand cross boundary issues. It also requires the use of a standard methodology for calculating housing need and identification of infrastructure needed to support growth at the Strategic and Local Plan stage.
- 6.5 Alongside this MHCLG are consulting on their *Supporting housing delivery through developer contributions* consultation which looks at contributions from and viability of developments.
- 6.6 The Community Infrastructure Levy (CIL) is based on the principle that those responsible for new development should make a reasonable contribution to the costs of providing additional infrastructure. The CIL sits alongside the system of planning obligations under section 106 of the Town and County Planning Act 1990 (section 106 obligations). However, there are certain constraints with the current system which has led to proposals to reform developer contributions and the NPPF. The introduction of a Strategic Infrastructure Tariff can help fund or mitigate strategic infrastructure, ensuring existing and new communities can benefit and encourage cross boundary planning.

³ [National Infrastructure Commission - Partnering for Prosperity: A new deal for the Cambridge-Milton Keynes-Oxford Arc](#)

⁴ [Department for Communities and Local Government - Fixing our broken housing market](#)

- 6.7 The above proposals links in with the NIC's recommendations in their *Partnering for Prosperity: A new deal for the Cambridge-Milton Keynes-Oxford Arc* report⁵. The recommendations include making changes to the operation and application of CIL and section 106 agreements across the arc to allow local authorities to work together through appropriate governance structures and remove restrictions on the pooling of section 106 revenues.
- 6.8 The Commission also recommended removing restrictions on forward funding of infrastructure against future receipts. **A prospectus approach to infrastructure funding could be implemented through land value capture, modelled on the Milton Keynes Tariff, as used for the funding of infrastructure at the Nine Elms redevelopment in London.**
- 6.9 The Milton Keynes Tariff was introduced in 2004 to fund social and physical infrastructure in strategic expansion areas. Unlike section 106, Milton Keynes was able to borrow money from the Homes and Communities Agency to forward-fund infrastructure against expected tariff receipts. Under the tariff model, the developer pays 75 per cent of the charge on completion rather than upfront, reducing their need for borrowing and allowing for greater certainty for both partners. Some payments were delivered 'in kind' if developers provide specified infrastructure or public space. Despite its effectiveness, this model was replaced by the CIL as it offered similar powers.
- 6.10 Basing a model like the Milton Keynes Tariff would mean bringing landowners into a partnership with house builders so that funding agreements can be put in place at the outset. The certainty of finance will allow the local authority to borrow more, while the certainty of infrastructure encourages developers to commit.
- 6.11 The Housing, Communities and Local Government Select Committee⁶ are examining the effectiveness of current land value capture and the need for new ways to capture uplift associated with the granting of planning permission or nearby infrastructure improvements.
- 6.12 There is a lack of strategic alignment between utility providers and local planning authorities. Utility providers tend to have a shorter planning timeframe than local planning authorities, because the regulatory framework focuses on the current price review period rather than long-term demand (although one of the functions of the regulatory frameworks is to secure long-term security of supply, including through the provision of sufficient infrastructure). As a result, this causes difficulty in developing plans where the necessary infrastructure will be integrated into delivery programmes at the appropriate time. There are several examples within the South East Midlands of developments that have been delayed because connections cannot be made in a timely manner, and/or because there are capacity constraints to deal with the step changes in growth being proposed. More detail on the specific regulatory constraints is given below.

⁵ [National Infrastructure Commission - Partnering for Prosperity: A new deal for the Cambridge-Milton Keynes-Oxford Arc](#)

- 6.13 The Housing and Finance Institute is calling on the Government to introduce new Utility Direction Powers, to force utility companies, in particular water companies to deliver connections to new homes on time.
- 6.14 Under these powers, authorised bodies such as the Planning Inspectorate, Homes England or the Secretary of State could serve an order requiring a regulated utility company to bring forward utilities to a site within a specified time period. A “take or pay” guarantee where the authorised body or Secretary of State would pay an additional sum if the homes do not come forward as expected would be used to incentivise utility companies.
- 6.15 The Housing and Finance Institute has recommended that advance funding could also help persuade utility companies to bring facilities to a certain area⁷. The Institute is also seeking new legal requirements for utility connections to be made, where there is a national interest to do so.
- 6.16 Trade associations, such as the National Federation of Builders have also highlighted the lack of appropriate infrastructure facilities – such as roads – which is often cited as the main reason for opposing new housing developments, even in areas with pressing demand.
- 6.17 Builders have also cited that the process and time it can take to make utility connections as one of the more significant delays in providing new homes, and have estimated it can in some cases, add a three to six month delay after construction has started.
- 6.18 Generally speaking, infrastructure providers benefit from extensive permitted development rights, under the Town and Country Planning (General Permitted Development) Order 2015. These enable development to take place without the need for specific planning permission to be granted by the local planning authority. They include, for instance, rights to install electric vehicle charging points, rail-related development on operational land, certain highway-related development, certain water supply, sewerage and land drainage installations, certain renewable energy micro-generation facilities, and the installation of various types of gas, electricity and electronic communications apparatus. These rights are limited, and generally do not allow the construction of major new development, which requires either planning permission or a development consent order (depending on its scale). However, permitted development rights generally enable utility providers to carry out works needed to connect homes to the relevant utilities; the main impediment appears to be the financial implication of doing so. However, **the relaxation of the restrictions on permitted development rights for utility provision in connection to new developments in the Heartland region could make utility connections easier to provide.**
- 6.19 Utilities have found that it is difficult to change local planning policy as it needs to be steered by central Government. **There is a role for the EEH to provide collective responses to Government consultations and influence national policy and regulation.**

⁷ [Better Connections: housing infrastructure recommendations, Housing & Finance Institute Nov 2017](#),

7 Current regulatory frameworks

- 7.1 Stable and consistent regulatory frameworks help to enable long-term investment, innovation and security across infrastructure sectors.
- 7.2 However, current infrastructure regulation is often fragmented and siloed between government bodies. Different utilities are governed by specific and different legislative provisions and regulation, which makes co-ordination more difficult and can cause inefficiencies. This is particularly the case when developing a combined regional energy strategy against the backdrop of a sector that does not have a combined legislative framework.
- 7.3 Each utility's regulation is also set independently from each other which has resulted in a disjointed sectoral approach to resolving issues. Revisions to the regulatory framework will also need to be considered to accommodate new technologies such as storage and electric vehicles.
- 7.4 **Due to the fragmented landscape across infrastructure sectors, there are opportunities for the different regulators to work together and assess how best to respond to developments that affect multiple sectors.**
- 7.5 The right regulatory framework is required to incentivise investment in infrastructure and more consistency is required across sectors to achieve a whole-systems approach. The NIC will be considering these issues and how adaptive regulation could be managed. They will consider whether regulation is flexible enough to meet future challenges and factor emerging technologies - such as energy storage and electric vehicles - to deliver the right social outcomes and will examine the long-term changes that may be needed across regulators.
- 7.6 Long-term big scale developments can also present a challenge when it comes to regulation as the planning timeframes for all parties are different (for instance, regulatory approvals versus land-use planning permission). Certainty is required throughout the planning process. **This could be provided by adopting a process in the Heartland that is similar to that for "Projects of Common Interest" under the EU's Regulation on trans-European energy infrastructure (the TEN-E Regulation), which requires designated projects of European importance to be consented within a fixed timescale and following a streamlined procedure.**
- 7.7 **EEH could take the lead in pulling agencies into alignment to best serve the needs of the area; in particular by proposing revisions to regulatory requirements that act as barriers to advance delivery of infrastructure.**
- 7.8 **EEH should consider submitting evidence to the NIC's review on regulatory frameworks, when this is made available. EEH should also consider responding directly to each regulator's consultation on forthcoming price control and similar mechanisms.**

8 Energy

8.1 The energy market in the UK is divided into three main areas:

- The **generation** of electricity, either at large power stations connected to the national transmission network, or smaller scale generators connected to regional distribution networks;
- The transport of electricity through networks of underground cables and overhead wires. These are split into “transmission” and “distribution” networks. **Transmission** refers to the high-voltage long distance lines operated by National Grid that carry electricity from large generating stations to sub-stations, where it is changed to lower voltage. The “**distribution**” networks carry this lower voltage electricity from sub-stations to homes and businesses. Western Power Distribution, UK Power Networks and Scottish and Southern Energy are the Distribution Network Operators (DNOs) which cover the EEH area. Similarly, the National Transmission System for Gas operates long distance high-pressure gas pipelines which run from gas terminals and storage facilities to pressure reduction stations, where the gas enters the local transmission systems (officially known as Gas Transporters);
- Energy **suppliers** buy electricity in wholesale markets and sell it to customers.

8.2 In March 2016, the NIC published *Smart Power*⁸, which proposed principles around interconnections, storage and demand flexibility, which aims to help the UK meet its 2050 carbon targets and secure the UK’s energy supply. **EEH should continue engaging with the NIC to ensure the views of the Heartland are considered as part of its energy infrastructure priorities.**

8.3 Energy generators, Transmission System Operators, Distribution Network Operators (DNOs), and Suppliers are all regulated by the Office of Gas and Electricity Markets (Ofgem). The Suppliers work in a competitive market, but the others are monopolies and their prices are heavily controlled by Ofgem.

8.4 DNOs have a monopoly over electricity distribution, so they are subject to strict price control regulations. These price controls are administered and reviewed by eight year periods, which determine how much distribution network operators can invest in their networks, and how much income they can collect from distribution charges over the period. These eight year periods therefore tend to act as default planning periods. In setting these price control mechanisms, Ofgem seeks to incentivise innovative delivery of utilities, but also to protect the consumer from the costs of funding investment in speculative infrastructure that is not ultimately required. This can have the effect of making utilities reluctant to fund such infrastructure as they may not be able to recoup their expenditure unless they can demonstrate a clear need for it. The issue is therefore not always the length of price control

⁸ [National Infrastructure Commission - Smart Power](#)

- periods, but Ofgem's concern to ensure that consumers do not pay for infrastructure that is not needed.
- 8.5 However, Ofgem can also use the price control framework to reward utilities for the delivery of Government's social or environmental policies, even where these are not directly related to meeting consumer demands. For instance, Ofgem has adapted the framework to fund work by National Grid to reduce the impact of existing transmission lines in protected landscapes by undergrounding them; an investment that would not have happened under the normal application of the framework.
- 8.6 RIIO (Revenue = Incentives + Innovation + Outputs) is Ofgem's performance-based framework to set price controls. The current network price controls for gas and electricity transmission (RIIO-T1) and gas distribution (RIIO-GD1) run from 2013-2021, and for electricity distribution (RIIO-ED1) from 2015-2023. The RIIO-2 will start from 2021 (or 2023 for electricity distribution), which will take a whole system arrangement with electricity and gas, and take into account of emerging technologies, such as electric vehicles. Ofgem is currently consulting on its approach to RIIO-2 and proposes to bring forward sector-specific proposals in Q4 of 2018. Among the issues it is considering are whether some of the Outputs to be rewarded should be set on a regional basis. EEH should seek to contribute to this review.
- 8.7 The transition to RIIO-2 will present a benefit on predicting some investment needs as the price control period will be minimised to five years. Ofgem recognises that this could cause difficulties for the delivery of infrastructure across a period of more than five years. It is therefore considering adapting the use of a mechanism to allow operators to bring forward investment in "strategic wider works" where these have not already been recognised in the price control settlement. **This is potentially a mechanism for EEH to encourage the delivery of infrastructure ahead of need in the Heartland area.**
- 8.8 DNOs are also to become Distribution System Operators (DSOs). This change will help deliver benefits to customers, maintain performance and resilience of the system, provide access to markets and unlock the potential for new energy technologies such as battery storage and electric vehicles.
- 8.9 DNOs are incentivised by Ofgem to carry out effective stakeholder engagement, under the Incentive for Connections Engagement (ICE) initiative. It allows DNOs to understand and meet the needs of larger connections and requires them to liaise with local authorities, government, planning authorities and developers to identify areas where there are plans for future developments and opportunities to reinforce the network ahead of need.
- 8.10 It is the responsibility of the DNO to understand the needs of their stakeholders, produce work programmes and undertake appropriate consultations. Ofgem encourages a proactive approach and provides a general guide, however, there are no specific benchmarks. They will only take action where stakeholders come back to them on feedback of DNO performance. Penalties are applied where DNOs have not met their targets and objectives.

- 8.11 For example, applications for new large developments are often cited as a key challenge as this is planned on a long-term basis, whilst grid and network capacity can change more frequently. Smaller developments can also present challenges where there are uncertainty of delivery timescales, compared to others among the pipeline of projects.
- 8.12 If the project does not go ahead, or it is considered by Ofgem that it has not been delivered efficiently, DNOs will not be able to recover the expenditure through pricing, and will need to recover the money elsewhere so this presents another issue. As DNOs are statutory consultees for local plans, the proposed **Strategic plans could be used to provide further details on forecasting and demand requirements to DNOs so that expectations can be managed effectively.**
- 8.13 Independent connection providers present an alternative that could help lower costs and offer more flexible working within the regulatory framework.
- 8.14 Due to the complexity of numerous communities, local authorities and LEPs within EEH, this may present a challenge for the DNOs when engaging with stakeholders. **Ofgem encourages local authorities and LEPs to provide strong evidence on their infrastructure needs when engaging with DNOs.**
- 8.15 Some DNOs produce Strategic Network Investment Options reports for all its licence areas on a two year rolling basis.
- 8.16 The scenario forecasting methods help to address the uncertainty in future paths, in relation to growth and the demand of distribution growth, and helps understand the investment options.
- 8.17 The data is collated 9 months prior to the publication of the report in each region, and figures and information on the growth potential are provided by the local authorities and LEPs to inform predictions for the short to medium-term. Longer-term trends are analysed using similar techniques to the National Grid's Future Energy Scenarios. Stakeholder sessions are used throughout the development of these reports. **A call to action would be for the local authorities and LEPs to work further with DNOs including Western Power Distribution to refine the assumptions and growth scenarios.**
- 8.18 DNOs conduct extensive engagement with the Highway Authorities and Local Authorities in relation to the New Roads and Streetworks Act to ensure works are kept to a minimum.
- 8.19 DNOs cover specific geographic boundaries so cross boundary interaction is limited. All DNOs work to the same guaranteed standards for quotation and delivery, which are set out under the regulatory framework. On new developments which could be fed from either side of a DNO boundary, there may be some additional options open to the customer on selecting an infrastructure design, which could result in a lowest cost scheme.
- 8.20 DNO and local authority boundaries do not align. DNOs generally contain multiple counties, but in some cases, several DNOs operate in one county. This rarely causes complexities or

challenges. It may be that the border of the DNO has weaker networks, but they all have a duty to provide quotation and delivery to make connections. **There are opportunities in bringing the DNOs together with a single strategic forum to improve standards, share best practice and mitigate any cross boundary interaction issues.**

- 8.21 All DNOs work together under the ENA Open Networks Project to better align forecasting and system requirements so that cross-DNO information and data is exchanged faster and that all relevant information is accessible to the customer. WPD runs a comprehensive innovation programme⁹ and has access to Network Innovation Allowance and Network Innovation Competition funding. These two funding mechanisms are provided by Ofgem in the 2015-2023 price control review period.
- 8.22 **DNOs call on the EEH to look at different models of utility and local government infrastructure investment. They have used the example of Milton Keynes Council traditionally investing ahead of need for utility assets, and then recouping costs once the development site has been sold, as the value would increase. WPD suggests that this model could be used if the EEH wishes to fund the infrastructure directly with the DNO.**
- 8.23 Whilst this investment in network ahead of need would reduce the time to make new connections, it does however, increase the likelihood of stranded assets if the project does not go ahead, and lead to socialised costs to the rest of the network, which will ultimately affect customers.
- 8.24 **DNOs including SSE and UKPN currently hold capacity constraints workshops to identify lessons learnt. There is a role for local authorities and LEPs to take part in these.**
- 8.25 **It is also encouraged that Local and Strategic Plans should have a whole energy systems approach to identify the stronger areas for development.**
- 8.26 In early 2015, Ofgem launched a *Quicker and more efficient connections* consultation which was followed up with the next steps in 2015. It set out a workplan for DNOs to make better use of the existing network and also invited trials on the investment ahead of need concept, so that payment for reinforcement takes place in advance of new developments. These were based on three models, where:
- The DNO funds the anticipatory investment;
 - The DNO funds initial investment, but recovers this from connection customers;
 - A third party funds initial investment, but recovers this from connection;

An industry update¹⁰ was published in February 2016. It included a series of case studies on existing schemes including:

- A scheme established to create advance electricity capacity to help attract new companies to an ex-industrial area. Capital from EU regeneration funding was available for this;
- A scheme which involved a local authority offering serviced plots of land it owned to independent developers who would pay for the final connection charges;
- A scheme involving a new riverside development alongside general city centre load growth. A new primary substation was developed and paid for by the DNO, as lead contributor, and other contributions from developers.

These case studies provided some lessons learnt, where when real local load growth coincides with clear, staged development plans and connection offer activity, there is a much clearer case for the DNO to invest in significant reinforcement. Funding from the local authority or Europe also helps in the schemes moving forward.

8.27 Elsewhere, Ebbsfleet Development Corporation and UK Power Networks have come to an agreement on the funding on new connections to unlock development. The consortium group aims to share the cost of connection to fund new electricity ahead of need. **This model could be examined as an example as part of EEH priorities in assessing comparators which has worked well in the UK.**

8.28 The Housing Infrastructure Fund has received bids around electricity capacity. BEIS and MHCLG are working together on the electricity part of the Fund. The local authorities must show evidence of working with the DNO as part of any funding bid.

9 Opportunities for local energy

9.1 Local government have a responsibility to engage with the energy sector for the benefit of their communities and economies. The idea fits with the wider context and the focus on infrastructure, in terms of investment in housing stock, heat networks, low carbon fleets and charges, smart hubs.

9.2 Support in energy, tools to enhance capacity and having available resource to build capacity can often lead to increased investment in local energy. In September 2017, BEIS announced plans to form local energy hubs in order to prioritise local energy projects and encourage coordination between LEPs. The programme aims to address the gap in capacity and capability of LEPs and other local organisations. It will allow local areas to undertake the initial stages of project development, up to the point where they are ready to bid for funding or secure other sources of finance, i.e. privately funded.

¹⁰ [Ofgem – Quicker and more efficient connections – an update on industry progress](#)

- 9.3 Each hub requires each LEP to produce its own local energy strategy and provide evidence that each strategy is streamlined and creates further opportunities for cross-collaboration. This will include agreements on the prioritisation and timescales for energy infrastructure.
- 9.4 The Greater South East Energy Hub will comprise 16 counties in the East of England, Greater London, the South East and the Cambridge – Milton Keynes – Oxford Growth Corridor. There is a total of 149 local authorities in the Hub area. The accountable body is the Cambridgeshire and Peterborough Combined Authority and work is now underway to set up the hub so that it is operational in September 2018.
- 9.5 Ofgem has an ‘arms-length’ involvement in working with BEIS to ensure the initiative meets regulatory frameworks but welcomes LEPs to engage with them to address any concerns. BEIS plan to publish their plans of national and regional projects in the autumn.
- 9.6 This programme will help EEH enable energy infrastructure delivery that is required.
- 9.7 Ofgem’s future insights series¹¹ focuses on local energy in a transforming energy system. Part of the report looks at local supply and models which are aimed at supplying local communities with affordable and low carbon energy through direct supply and retail/commercial models.
- 9.8 Examples of local energy initiatives include Robin Hood Energy, which was launched in September 2015 by Nottingham City Council. It acts as a non for profit energy company outside the Big Six – operating as both an energy generator and supplier. Robin Hood Energy also partnered with Leeds City Council to establish White Rose Energy, an initiative to provide affordable energy to Leeds and Yorkshire. It is locally and nationally supported.
- 9.9 London became the first authority to go operational with a new type of electricity licence – Licence Lite. It aims to let smaller, local electricity suppliers sell power to the grid without the significant licensing requirements and costs that larger suppliers need to meet. The GLA obtained an electricity supply licence, allowing it to buy excess electricity generated by London boroughs, public bodies and other low and zero carbon generators, and to sell the electricity to public sector and commercial consumers, offering better prices to the generators. In December 2017 Ofgem formally announced that the application for Electricity Supply Licence Lite was successful and that the licence was granted. The project started operation on 1 January 2018.
- 9.10 Examples such as the above demonstrates what could be implemented locally, however, they do come with various regulatory issues. In addition, the GLA’s Licence Lite scheme was significantly assisted by being able to agree a supply contract with TfL, which may not be easily replicable in the Heartland. Ofgem highlights that the regulatory framework needs to evolve to ensure the consumers’ interests are realised in the future energy system and enables the emergence of business models that are in the long-run interests of consumers.

¹¹[Ofgem’s Future Insights Series – Local Energy in a transforming energy system](#)

10 Water

- 10.1 Thames Water, Anglian Water and Affinity Water cover the EEH.
- 10.2 Water companies have a role in working with local authorities to predict population growth, future housing and business development. Forecast of climate change scenarios are also taken into account, including rainfall, droughts and its impact to reservoir levels. Plans are developed to ensure a secure supply of water, that options are resilient and meets customer demand.
- 10.3 The water industry's planning process is split into 5 year "asset management periods" or AMPs. The current period is AMP 6, running from 2015-2020, and AMP 7 will run from 2020-2025. The year before each AMP starts, Ofwat sets out its methodology for that AMP's price review (referred to as PR and the year concerned, so PR14, PR19, etc), and water and waste water undertakers are required to submit business plans in response. Ofwat reviews these business plans before setting the prices for that AMP. The pricing mechanism involves "outcome delivery incentives" that are similar in nature to those that apply under RIIO.
- 10.4 The business plans must also take a longer 25-year water resource management plan into account. The next WRMPs will run from 2019, and cover AMPs 7, 8, 9, 10 and 11, extending to 2045. The WRMPs are approved by the Environment Agency, and set out how the undertakers will ensure an efficient, sustainable secure supply of water over the 25 year planning period, showing how they have forecast their customers' demand for water, and their supply over the period. Most are produced on a company-by-company basis, but there is some regional co-operation, include Water Resources South East, which both Affinity Water and Thames Water are party to and which covers the southern parts of the EEH area from Swindon through to Stevenage. Anglian water has its own WRMP. The 25 year WRMP periods should enable long term planning and delivery of strategic infrastructure, but the pricing methodology could potentially be reviewed to encourage delivery.
- 10.5 Thames Water have taken a longer term approach to water resource planning in respect of delivery options which could be used as a model for the other utility infrastructures. Its WRMP19 plan therefore covers the next 80 years from 2020 to 2100.
- 10.6 If water supplies do not meet demand, central Government takes a role in asking water companies to explore alternatives such as transfer and metering. This could also include plans for wider shared benefits including partnership working with other water companies and environmental groups.
- 10.7 For example, water companies are currently working together in developing a framework to help bring transparency to all parties and align the planning process. This project is due to be delivered in summer 2018.
- 10.8 Ofwat set its methodology for PR19 in December 2017, and undertakers are due to submit their business plans for AMP 7 by September 2018. Ofwat will give its initial assessment of those plans by January 2019. Like Ofgem, Ofwat's primary focus is on regulating the prices

charged to consumers, and seeking to improve undertakers' performance. The particular focusses for AMP 7 are environmental improvements (e.g., reducing leaks), resilience, and affordability. One particular concern for EEH might be that Ofwat is reducing the extent to which undertakers can pass their financing costs onto consumers. While Ofwat justify this by the reduced cost of borrowing, this could make undertakings reluctant to borrow for the purposes of delivering strategic infrastructure. As a mitigating factor, Ofwat does propose that adjustments will be made at the end of PR19 for changes in the volume of "developer services" provided by water companies during the AMP. This is meant to encourage the delivery of new connections.

- 10.9 From April 2018, water companies implemented new charging rules in order to provide better services to customers. This includes a new Code for Adoption Agreements, which smooths the process of developers laying the assets themselves and their adoption by the water companies. Other measures include developer experience (DMEX) which incentivise or penalise the water companies for their customer service to developers after the PR19 review.
- 10.10 The new charging rules gives a clear distinction between charges for work that needs to be done on site to lay new assets and those for work to enhance and reinforce the wider network (infrastructure charges). Clearer transparency will mean better competition between parties and so developers can make the decision on laying themselves or getting a better deal from a third party.
- 10.11 Network improvements will still be funded by developers through the infrastructure charge – which is a flat rate, regulated charge levied on all new connections over a five year period. This puts the responsibility on water companies to work out the likely extent of such work in advance and invest the money they receive efficiently.
- 10.12 When setting price controls, Ofwat must comply with the UK Government's strategic priorities statement (**SPS**), given under section 2A of the Water Industry Act, as introduced by the Water Act 2014. The current SPS contains some references to encouraging the delivery of infrastructure, but sets no specific objectives in that regard. Rather, the SPS requires Ofwat to further water supply resilience, through both the planning and delivery of new supply and also measures to improve water efficiency and reduce demand. Ofwat has followed this requirement, by proposing a cost assessment framework that treats demand and supply based solutions neutrally. This may well be appropriate across the country as a whole, but would not encourage new supply, where demand management and improved resilience would be more cost effective. In order to estimate the amount of network enhancements required, **water companies should work with local authorities to identify specific needs from development plans. As water companies tend to work at a wider than local authority scale, they could benefit from engaging with a pan-regional strategic forum, to ensure a co-ordinated approach.**
- 10.13 Water companies tend to welcome more innovative solutions by offering discounts on the infrastructure charge for developers who build sustainable features such as drainage. On the

other scale, there also zonal charges in higher risk areas which leads to higher infrastructure charges.

- 10.14 In Anglian Water's *Building a resilient future*¹² report, it calls for better collaboration between planners, developers and water companies to speed up planning decisions and to change the perception of utilities as a block on development.
- 10.15 Anglian Water recommends making water and sewerage companies statutory consultees in the planning application process (they are already statutory consultees in the plan-making process). Water companies are legally obliged, pursuant to Section 106 of the Water Industry Act 1991, to accept new connections to the existing sewerage systems, but there are no statutory powers for infrastructure providers to suggest alternative options for development based on infrastructure capacity and flood risk.
- 10.16 United Utilities unveiled a new framework at the end of 2017 to improve charges by suggesting a fixed fee approach a standardised menu of charges for construction activities. It is said to allow developers to work out the cost of new water and wastewater infrastructure and connections without the risk of unexpected costs. The initiative is still in development with the final charges expected to be published in February 2019.
- 10.17 As with Ofgem, Ofwat allows companies to recover "efficient costs" of delivery, but where companies spend more than this to meet their obligations, the responsibility to cover the costs falls on their investors.
- 10.18 **EEH could push Government to update Ofwat's objectives for the next AMP period, so as to require Ofwat more explicitly to encourage the delivery of strategic infrastructure in the Heartland.** Alternatively, EEH should explore whether a different price control mechanism could be adopted for its region, to encourage the advanced delivery of strategic infrastructure – as Ofwat proposes for the Thames Tideway Tunnel. Thames Water's licence has been modified to enable an additional price control for services related to TTT, which sits alongside the general price control, but reflects the specific circumstances on this large-scale infrastructure project. Ofwat also has a different price control mechanism for large-scale projects (over £100m), where the water company directly procures their delivery from an infrastructure provider, rather than seeking to deliver them itself. EEH could explore whether Ofwat would consider adopting such an approach for new infrastructure in the Heartland region, irrespective of whether it meets the threshold.
- 10.19 The Environment, Food and Rural Affairs Committee has launched an inquiry into regulation of the water industry. It will consider how the water industry serves consumers and the environment, how innovation could be encouraged and the potential benefits of regulatory divergence post-Brexit. **EEH could seek to input into these types of inquiries.**

¹² [Anglian Water – Building a resilient future](#)

11 Flood risk management

- 11.1 Flood risk is prone to extreme weather events and climate change. The majority of funding is through grants from the Department for Environment, Food and Rural Affairs (Defra) to the Environment Agency (EA).
- 11.2 Government is investing £2.6billion in flood and coastal erosion risk management projects between 2015 and 2021. £76 million for flood and coastal defence schemes was announced in the Autumn Budget 2017. It plans to improve existing arrangements for managing surface water flooding, and the outcomes are delivered by Lead Local Flood Authorities and other risk management authorities, including water companies.
- 11.3 The capital investment in flood defence infrastructure acts in a six year cycle and the money receive from central government varies between locations, with high levels of protection given to urban areas. However, the allocation of maintenance funding is a one year period, which makes it more challenging to assess the long-term future needs of the region and creates greater uncertainty. Industry has often argued that capital investment and maintenance should be covered together over a long-term basis and factored into the spending plans from the outset.
- 11.4 However, the capital programme which is funded by HM Treasury and Defra is targeted at existing properties. There are opportunities to build local tax initiatives to fund capital schemes.
- 11.5 The Government's *A Green Future: Our 25 Year Plan to Improve the Environment*¹³ outlines a new approach to managing the environment and priorities to reduce risks from, flooding and coastal erosion. Core to this is the Plan's commitment to embedding the principle that *new development should result in environmental net gain*, which enables housing development without increasing burdens on developers.
- 11.6 Blue and green infrastructure planning is an essential part of the arc-wide strategic infrastructure plan. Whilst ambitious, it is only by taking a whole catchment approach to flood risk, water resources and environmental enhancement that will help build climate resilience and achieve environmental net gain. Improving the environment will also increase resilience and make EEH more attractive for investment.
- 11.7 For large scale development, ambitious and transformational plans are needed. Success will depend on recognising river catchments as integrated systems requiring consideration as a whole, complemented by more traditional site-by-site environmental measures.
- 11.8 The environment does not adhere to administrative boundaries. Downstream flood risk infrastructure enables and is integral to growth; future development relies on its maintenance and investment.

¹³ [Department for Environment, Food and Rural Affairs – A Green Future: Our 25 Year Plan to improve the environment](#)

- 11.9 **It is argued that environmental net gain should be identified during the early stages and EEH have a role to play in examining the opportunities and environmental constraints.**
- 11.10 Lead local flood authorities have primary responsibility in managing flood risk in their own areas and the Flood Risk Regulations 2009 require each local flood authority to carry out a preliminary flood risk assessment for its area, based on the current planning and funding cycle.
- 11.11 Effective land planning, sustainable drainage, sustainable development and effective flood risk management must be considered together, which requires significant co-ordination between local and central government.
- 11.12 **Local communities should have a responsibility in regular dialogue through local resilience forums, in order to plan ahead and prepare for localised incidents.** An essential part of managing flood risk is taking the account of new development in land use plans and strategies. Sharing good practice can raise the awareness of flooding in the local community and help prepare flood action plans. The use of data can also gather more detailed information on asset management, to help assess value for money and deploying funding to maintain flood risk.
- 11.13 Public acceptance of water should be explored and adaptation strategies advocated, especially to cope with (the inevitable) flash flooding in urban settings.
- 11.14 Local authorities and LEPs have the ability to facilitate strong local governance. Flood catchment areas are large and they need to be operated efficiently and at scale. A co-ordinated approach, examining how flood risk can impact other infrastructure sectors and local development can be established through the **inclusion of Regional Flood and Coastal Committees (RFCC)**. There are three RFCC's within the growth arc. RFCCs are independent bodies made of elected members from the local authorities (Chair is appointed by Defra) who provides direction on flooding matter to the EA and other flood management authorities.

12 Telecommunications

- 12.1 In July 2017, the Government announced a £400 million Digital Infrastructure Investment Fund to unlock better broadband connections across the UK. This funding is a top-up from the original investment of £1.7 billion to roll-out super-fast broadband.
- 12.2 The Department for Digital, Culture, Media and Sport (DCMS) launched a £200 million Local Full Fibre Networks programme¹⁴, which provides targeted funding to stimulate investment through commercial models. Local authorities were allowed to apply to the Challenge Fund and the first wave of allocation has been announced for 13 areas.

- 12.3 The Barriers Busting Taskforce has been created to work with local authorities to reduce the costs of street-works, simplify planning and wayleaves agreements and tackle barriers to full fibre roll-out.
- 12.4 The Taskforce are looking to share and highlight good practice across the sector. The Local Connectivity Group has been set up to include landowners, LAs, telecoms companies and Street Works UK. A guide will be developed by the end of 2018 so toolkits for LAs and telecoms companies can be devised, which includes the potential of contract development with regards to digging and refilling roads, to be covered by a guarantee.
- 12.5 More than any other regulator, Ofcom relies on competition to deliver consumer benefits and new infrastructure. The challenge for digital infrastructure is to promote collaboration and secure bottom-up regulation. Stable regulatory conditions are required to encourage investment in the UK's digital infrastructure. DCMS are using regulation to help operators build and develop digital infrastructure and regulatory frameworks will also supports the delivery of connectivity, including the roll out of 5G.
- 12.6 **DCMS encourages 'digital local plans' to be devised through collaboration with parties, including local authorities and providers to tackle issues, including street works, planning and breaking down internal barriers.** This gives the opportunity for LAs to have a more joined up approach and identify champions to overcome barriers and associated costs. Uncoordinated approaches to the current system sees paperwork issues leading to delays and additions to overall costs.
- 12.7 Telecommunications operators claim that it is often unclear who in the LAs has overall responsibility for such infrastructure issues and this is unhelpful to the telecommunications companies. **DCMS would welcome local 'barrier busters' – a named champion in an LA, who can work across departments and parties.**
- 12.8 Local authorities have a role in streamlining the process of using and reviewing permit charges. **Consideration could be given to a rolling permit scheme for works associated with telecommunications, and whether this could be rolled out to other infrastructure.**
- 12.9 It is found that utilities companies only intervene on road works when there is an issue. Section 58 regulations mean that they guarantee the roads for up to five years if replaced or if a full reinstatement is provided. However, the timeframes from LAs for road inspections are generally on a two year cycle, and only then defects are identified which then have to be replaced or instated. Better coordination between utilities companies and telecommunications is required when planning replacement programmes and this could be facilitated by contractual terms between those two parties.
- 12.10 Parish councils and individual householders often hold up work as well. If they impose what utilities consider to be excessive additional cost to a scheme then it will not progress.
- 12.11 **Ducting could be presented as a benefit for telecommunications but has associated liability issues.** It is currently used by Transport for London on their roads and LAs could

consider this as an option by looking at charging higher fees to access it. This can help save money and create opportunities to faster connections.

- 12.12 LAs can often be wary of signing the Non-Disclosure Agreements (NDAs) that telecoms companies insist upon before entering into dialogue and collaboration. These are highly sensitive and commercial matters so an NDA may be required.
- 12.13 A consultation will take place examining wayleaves and will look at the problem of multi-dwelling units to help alleviate concerns in letting agencies. New build connections will be examined as part of this work.
- 12.14 DCMS are working with the telecommunications team in HM Treasury on the issues of broadband, telecommunications and 5G, along with the Department for Transport, with regards to roadworks, and the Ministry of Housing, Communities and Local Government, inputting into the NPPF. No 10 have prioritised Housing and Digital as core issues to pursue.
- 12.15 A future telecommunications infrastructure review report is being planned for summer 2018 which includes full fibre connections and 5G deployment; **EEH should seek to input into this.**
- 12.16 Broadband Delivery UK (BDUK) supports local authorities who want to jointly fund investment with communities to enable new infrastructure projects to go ahead. However, this is different from the Government roll-out plans to deliver broadband by 2022.

13 Digital transformation

- 13.1 Digital transformation is also considered one of the main challenges for the utilities industry; in order to manage networks, drive operational efficiency meet customer expectations and experience and forward plan future infrastructure.
- 13.2 The use of "Internet of Things", "big data", and artificial intelligence are growing to help improve productivity and minimise unplanned downtime. By embracing digital transformation, this could mean more modern network management between infrastructure providers and operators and allow for better joint working.
- 13.3 Geographic Information Systems (GIS) is a software system which is designed to interact with spatial data, typically to support wider understanding of a system or object. The system is used by utility providers such as Anglian Water and Thames to better manage the networks, share accurate and up-to-date information about planned and emergency works that are currently being undertaken. It provides timely notification about water supply issues, helps with dialogue with the customer call centre and greater awareness of the work done by the utility provider.

- 13.4 However, existing research has been undertaken by consultancy companies on mapping infrastructure services. It found¹⁵ that very few utility and infrastructure organisations have accurate, detailed information of distribution networks and that there is no universal system for sharing data between different utility firms.
- 13.5 In December, the NIC published *Data for the public good*¹⁶, which advised on the benefits of enabling new technologies through better infrastructure data. It highlighted the potential idea of a digital framework to help better understand the interdependencies between infrastructure sectors to break down siloes. It recommended that there is currently an opportunity to set the framework that will establish common standards of interoperability for sharing data.
- 13.6 A new Partnering arrangement, piloted by Southern Water, provides a more open and transparent monitoring of the environment to help minimise the regulatory reporting burden and greater access of data. It is an open forum, providing public access to non-commercial/sensitive databases and help with customer engagement and facilitate innovative solutions. Southern Water's vision is that this will become a water sector-wide platform.
- 13.7 The NIC's report highlights that if there were a regulatory mechanism to ensure that data about the location of infrastructure networks is shared with other network operators and utilities (at an authorised level of access, taking into account security considerations) then a cross-sector system level view could be taken which could avoid the energy company cutting into the water pipe and cutting off water supply and delaying the connection of additional electricity resource.
- 13.8 However, the use of data and security needs to be managed carefully. The rules and regulation that govern data handling and protection are complex. Utility and infrastructure providers need expertise and flexibility to adapt to the evolving framework.
- 13.9 **Regulators should take a more cross sector approach to encourage open data within and across industries to enable greater innovation. EEH could take a role in encouraging this by bringing different industries together on a strategic board.**

14 Development of Local and Strategic Plans and a National Policy Statement

- 14.1 As noted above, much of the infrastructure installed by utilities benefits from permitted development, and does not need specific planning permission. Larger development, particularly that involving the construction of new buildings, does require planning permission, in which case it falls to be determined by the local planning authority, in accordance with the NPPF and their Local and in the future Strategic plans. **EEH should build on the work being done by Oxfordshire and by Cambridgeshire and Peterborough, to propose strategic spatial frameworks encouraging the delivery of infrastructure to support**

¹⁵ [KPMG – Smart infrastructure: Mapping underground utilities](#)

¹⁶ [National Infrastructure Commission – Data for the Public Good](#)

housing growth that would be taken into account by local planning authorities in the production of their own local plans.

14.2 When the development exceeds a certain threshold, it is classified as a Nationally Significant Infrastructure Project (NSIP), and must be approved by way of a Development Consent Order (DCO), rather than through planning permission. DCO applications must be determined within a fixed timescale, providing certainty to applicants (although Ministers can extend this). The following types of infrastructure development, among others, are classified as NSIPs:

- Power stations with generating capacity of at least 50 megawatts¹⁷
- Above ground electric lines with capacity of at least 132 kiloVolts and at least 2km in length
- Pipe-lines of at least 800mm diameter, and 40km in length or significant environmental effect
- New railways on Network Rail's network exceeding 2km in length
- New/improvements to Highways England highways
- Reservoirs, or waste water treatment plants, with capacity exceeding 10 million m³

14.3 DCO applications are made to PINS and determined by the Secretary of State for the sector concerned, rather than being dealt by local planning authorities. Rather than having to comply with the NPPF and local plans, the Secretary of State must decide the application in accordance with any National Policy Statement (NPS) that is in effect, unless specified circumstances apply. The 11 NPSs in effect at the moment are sector-specific, covering:

- Overarching energy policy
- Renewable energy
- Fossil fuels
- Oil and Gas supply and storage
- Electricity networks
- Nuclear power
- Ports
- National networks (road and rail)

¹⁷ The threshold is 100 MW off-shore, but that is not relevant to the Heartland area.

- Hazardous waste
- Waste water

There are also draft NPSs that have recently been subject to consultation, covering:

- Airports
- Water resources
- Geological disposal infrastructure for radioactive waste

14.4 The NPSs are therefore planning documents first and foremost, although they do also serve a political/policy purpose, by setting out Government policy on a particular area in a single document. Most NPSs are nationwide in effect (with the definition of “nation” depending on the extent of devolution in the particular field), although it is possible for NPSs to make policy identifying particular areas or locations as suitable for particular types of development. It is therefore possible in theory for an NPS to be made covering infrastructure development in a sub-national region such as the Heartland. As well as its formal function, which is limited to NSIPs, such an NPS could potentially be used as a lever to encourage regulators to take account of the need for the advance delivery of strategic infrastructure in the Heartland region in their price control mechanisms. It would also provide certainty for investors that such infrastructure would be provided. **EEH should therefore consider whether to press Government for a Heartland-specific NPS, or to seek to replicate its benefits through other mechanisms – such as Defra’s SPS to Ofwat, or a statement of Government policy outside the NSIP framework.**

14.5 All NPSs are subject to an appraisal of sustainability (including strategic environmental assessment) a habitats regulation assessment, public consultation and Parliamentary scrutiny. A Heartland-specific NPS would be subject to local consultation.

15 Conclusions and recommendations

15.1 Common themes have been found with stakeholders across the Heartland in identifying key opportunities and barriers to strategic infrastructure delivery to help enable investment and planned growth. Five key conclusions have been made to help EEH take the lead and facilitate a unified voice to strengthen its position on what is needed for the Oxford-Milton Keynes- Cambridge Growth Corridor.

- **Collaboration, co-ordination, clarity and transparency:** EEH has a strong role to play in bringing all interested bodies together to provide an integrated infrastructure development approach and clarity on the Heartland’s ambition and objectives to central government and potentially private investors. A Strategic Infrastructure Delivery Board should be formally established, with the identification

of named champions for each infrastructure sector to work across departments and parties.

- **Establish new approaches to infrastructure investment:** Central government is encouraging more private investment through its Industrial Strategy to help unlock infrastructure development. The newly established Strategic Infrastructure Delivery Board could have a lead role in assessing innovative financing models, such as tax incremental finance and land value capture to create the scope for the investment needed. Delivery models should also be examined, such as the Ebbsfleet Development Cooperation.
- **Lead in streamlining the planning process:** There are opportunities to make small changes during the planning process to help streamline and improve decision-making. EEH should make the case and provide strong evidence of infrastructure needs at pre-planning stage and continue to work with regulators and utility providers across sectors to refine assumptions and future growth scenarios.
- **Realise the potential changes in regulatory frameworks:** Regulation will go through a transitional period in order to meet future needs and allow for technological change and this will affect infrastructure investment in the future. However, enhancements can be made in the short-term. EEH in taking a lead in pulling together agencies into alignments to best serve the needs of the area; in particular by proposing revisions to regulatory frameworks.
- **Seek further policy support for the Heartland:** A National Policy Statement could potentially be used to encourage regulators to take account of the need for advance delivery of strategic infrastructure. EEH should consider whether to press Government for a Heartland-specific NPS or seek other available mechanisms to replicate NPS benefits.

16 Appendices

16.1 Literature review - please find details of the literature which considered as part of this report:

- National Infrastructure Commission – *Partnering for Prosperity: A new deal for the Cambridge-Milton Keynes-Oxford Arc, November 2017*
- National Infrastructure Commission – *Data for the public good, December 2017*
- National Infrastructure Commission – *Smart Power, March 2016*
- Department for Business, Energy and Industrial Strategy – *Building a Britain fit for the future, November 2017*
- Department for Business, Energy and Industrial Strategy – *Clean Growth Strategy, October 2017*

- Department for Communities and Local Government – *Fixing our broken housing market, February 2017*
- Department for Communities and Local Government – *Better connected: a practical guide to utilities for home builders, December 2014*
- Ministry of Housing, Communities and Local Government - *Draft revised National Policy Planning Framework consultation, March 2018*
- Ministry of Housing, Communities and Local Government – *Supporting housing delivery through developer contributions consultation, March 2018*
- Department for Environment, Food and Rural Affairs – *25 year Environmental Plan, January 2018*
- Ofgem – *Quicker and more efficient connections – an update on industry progress, February 2016*
- Ofgem – *Future Insights Series Local Energy in a transforming energy system, January 2017*
- Anglian Water – *Building a Resilient Future*
- Institute for Government – *How to transform infrastructure decision making in the UK, February 2018*
- Rail Delivery Group – *Project Finance: Bringing more private delivery and/or investment into the rail industry, March 2017*
- Housing and Finance Institute – *Better Connections report, November 2017*

16.2 Stakeholder engagement - Please find details of the bodies involved as part of the evidence gathering process:

- Buckinghamshire County Council
- Cambridgeshire County Council
- Centrica
- Central Bedfordshire Council
- Department for Business, Energy and Industrial Strategy
- Department for Digital, Culture, Media and Sport
- England's Economic Heartland Strategic Alliance

- Environment Agency
- Luton Borough Council
- National Infrastructure Commission
- Northampton County Council
- Oxfordshire County Council
- Oxfordshire LEP
- Ofgem
- South East Midlands LEP
- Scottish and Southern Energy Networks
- Swindon Borough Council
- Western Power Distribution