

ICE representation to Spending Review 2025 – Phase 2

February 2025

About ICE

The Institution of Civil Engineers (ICE) is a 97,000-strong global membership organisation with over 200 years of history.

It is a centre of engineering excellence, qualifying engineers and helping them maintain lifelong competence, assuring society that the infrastructure they create is safe, dependable and well designed.

Its network of experts offers trusted, impartial advice to politicians and decision makers on how to build and adapt infrastructure to create a more sustainable world.

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Summary

- On infrastructure spending: **Clear strategic direction, stable policymaking and long-term commitment to major infrastructure projects for the government to get better value for money and mobilize the private sector investment needed to close the UK's infrastructure gap.**
- On infrastructure planning and prioritisation: **The 10-year infrastructure strategy should set out a long-term vision, in line with the National Infrastructure Commission's recommendations, that provides visibility for investors and the construction supply chain, guides subnational decision-makers and assures the public on the country's infrastructure ambitions.**
- On decarbonisation: **More focus is needed on public engagement and behavioural change to achieve net zero. The public needs the right infrastructure in place before they can change their behaviour.**
- On climate adaptation and resilience: **The Third National Adaptation Plan urgently needs updating. The government should also undertake a national review of the economics of adaptation to ensure that climate resilience and adaptation are better valued in spending decisions.**
- On transport: **The Integrated National Transport Strategy needs to be 'vision-led', setting out the government's wider strategic objectives, and the outcomes transport must deliver to help achieve them, to join up planning across different modes and levels of government.**

Infrastructure spending

Public investment

- Advisory bodies such as the National Infrastructure Commission (NIC) and Climate Change Committee (CCC) have identified that near-term investment in infrastructure can solve many of the economic, social and environmental

challenges the UK faces and result in reduced overall household spending on infrastructure by the mid-2030s.¹ The cost of inaction is greater: these challenges are not going away.

- However, the UK has had a long-term underinvestment problem, with the lowest level of investment in the G7 for 24 of the last 30 years.² The recent changes to the fiscal rules to focus on the value of public investment, and not just the costs, are therefore a welcome move and something the ICE has repeatedly called for.
- Not only has UK public investment been low, but it has also tended to be volatile and short-term. Too often budgets for major projects are unrealistic in scale and timing. More certainty and transparency about the money allocated to major, multi-year infrastructure projects would help the government get better value for money. The introduction of rolling capital budgets to avoid funding 'cliff edges' and provide greater certainty is welcome.
- The planned Green Book update should help reduce regional imbalances in investment to support the government's ambition of unlocking local growth. The Green Book has mainly channelled infrastructure investment to already economically successful areas, such as London and the South East.³ In 2023, the largest spend on new infrastructure construction was in London (£7.9 billion), followed by the South East (£3.8 billion).⁴

Unlocking private investment

- Additional borrowing and capital spending are only one tool to ensure the investment required to meet the UK's economic, social, and environmental objectives. Private finance must also be mobilized at much higher levels than it has been. In recent years the UK's reputation as one of the most attractive countries for infrastructure investment has tumbled.⁵ In 2022 the UK had the lowest business investment in the G7 and ranked 28th among 31 OECD countries.⁶
- The UK Government needs to focus on improving the fundamentals of strategic infrastructure planning and reducing the cost and time it takes to deliver projects. There is no shortage of private investment waiting to be deployed into infrastructure assets. However, much of it can be deployed anywhere in the world. Investors are looking for clear strategic direction, stable policymaking and commitment to major projects from governments.
- Public funding and private investment must work together in complementary ways. Well-designed strategic public investment can crowd in private sector investment. For example, the National Wealth Fund is essential to incentivise the private investment required to accelerate the transition to a net zero economy. Investors need more clarity on how the Government intends to split public and private funding across different infrastructure sectors and which investment models it intends to use.
- Commercial expertise and project sponsorship need to be strengthened in both central and local government. Key skills, like contract management, procurement and negotiation, are too thinly spread. Projects may not be getting the right advice on which funding model to use. Green Book guidance could be strengthened to push for clearer financial optioneering at the business case stage to ensure all options are considered.
- Derisking projects early on can require significant upfront investment but ultimately makes those projects more attractive to investors and sets them up for better delivery. Early-phase work to assess the technical feasibility and costs

¹ National Infrastructure Commission (2023) [The Second National Infrastructure Assessment](#)

² Resolution Foundation (2023) [Ending Stagnation – A New Economic Strategy for Britain](#); NIC (2023) [The Second National Infrastructure Assessment](#)

³ ICE (2020) [Reforming the Green Book to achieve better outcomes from infrastructure investment](#)

⁴ Office for National Statistics (2024) [Output in the construction industry: subnational and subsector](#)

⁵ GIA (2024) [Infrastructure Pulse Q2 2024](#)

⁶ CBI (2020) [Investing in Infrastructure](#); IPPR (2024) [Rock Bottom – Low Investment in the UK Economy](#); Resolution Foundation (2023) [Ending Stagnation – A New Economic Strategy for Britain](#)

of potential projects and pre-approvals and consents from procuring entities would greatly expediate bidding processes and often remove levels of risk which would not need to be priced in. This would keep timeframes short, transaction costs, bid costs, and ultimately price, lower.

- The regulatory framework for economic infrastructure needs to become more flexible. Current defined regulatory periods governing utilities inhibit strategic, long-term thinking and delivery of core infrastructure networks. They are too restrictive in the face of market shifts and quickly evolving technologies. Regulators with a primary duty to protect the interests of consumers have sometimes prioritised short-term affordability for consumers at the expense of driving long-term investment in critical infrastructure.

Public engagement

- The public ultimately funds new infrastructure, whether through taxes, utility bills, or user charges. There needs to be more engagement with the public about why infrastructure is necessary, how it is paid for, and the trade-offs involved. There also needs to be a progressive case made for the private sector's involvement in infrastructure that goes beyond the additional money it will bring to focus on outcomes and benefits as well.
- Polling for the ICE has identified that the public's desire to see more infrastructure investment is tempered by the cost and the need to link additional investment to improvements in service and performance.⁷ Owners and operators must demonstrate clearly that, when they ask the user to pay more, there are tangible and visible benefits as a result. The public sees the government as responsible for ensuring the provision of infrastructure, regardless of the method of investment or ownership. This means that both the government and the investment community need to make a clear case for an appropriate risk and reward profile for private investors.

Infrastructure planning and prioritisation

- To get more value for public infrastructure investment and increase private sector involvement, the government must change how it approaches planning and delivering infrastructure to reduce uncertainty. Too much stop/start infrastructure planning and delivery has driven up costs, made it harder to build up and retain skilled workers and delayed businesses and communities from benefitting from infrastructure investment. The supply chain, businesses and the public need long-term plans supported by evidence, long-term thinking on financing options, and robust and consistent policy to achieve desired outcomes.

The 10-year infrastructure strategy

- The 10-year infrastructure strategy should set out a long-term vision in line with the National Infrastructure Commission's recommendations in the second National Infrastructure Assessment (NIA2). This will provide long-term visibility and confidence for investors and the construction supply chain while assuring the public on the country's infrastructure ambitions.
- As the NIS will set the direction for the next 10 years and beyond, it is important that the government learns the lessons from the first NIS and makes this a genuinely strategic document – not just a high-level list of objectives, targets, and projects. This will help decision-makers manage uncertainty, assess trade-offs and prioritise projects. Not everything will be achievable.
- Partnerships are key to the government's ambitions so the strategy should help guide devolved governments as well as investors, businesses, engineers and the public. It should set out wider outcomes but not be too prescriptive about the

⁷ ICE (2018) [State of the Nation Report: Infrastructure Investment](#)

detail or methods to allow local and market-driven solutions to drive innovation and efficiency in delivery. The government should also work to build cross-party support for the strategy – long-term infrastructure planning does not sit well with five-year political cycles.

- There are concerns from infrastructure leaders that there is not the market capacity to deliver on the government’s infrastructure ambitions, with competing interests in the same skill base, expertise and supply chains across multiple departments covering energy, water, housing and transport. This may constrain the delivery of the government’s missions unless a more strategic approach is taken to workforce planning.
- Infrastructure is a system of systems. It is important that the strategic infrastructure planning framework being developed by government is fully joined-up. The 10-year strategy must be linked to the new integrated national transport strategy, the strategic spatial plan for energy, the new industrial strategy and other sectoral plans.
- There is currently a lack of clarity over who in government is stitching together these strategies, and more besides. All these strategies and reviews have an infrastructure element and there is a risk that aspects may be missed, duplicated or mistranslated without an overall guiding mind. To this end, the 10-year infrastructure strategy should take a holistic view and rise above other government strategies to ensure they can be delivered. For example, infrastructure will be required to support house building, the government’s AI plan (e.g. use of water for data centres etc.), and the industrial strategy through ensuring there is sufficient transport and energy infrastructure available for businesses.
- The working paper on the infrastructure strategy recently published by HMT sets out solid foundations to address these points, particularly taking a longer-term and more cross-cutting, strategic approach to reduce uncertainty and deliver better outcomes for the public. The ICE has also recommended making it a statutory requirement that an infrastructure strategy be published or updated every five years to increase certainty.

Improving infrastructure delivery

- The government needs to build confidence that its 10-year strategy is deliverable. It should continue addressing the persistent blockers to completing projects faster and at lower cost such as planning delays.
- The ICE’s programme on learning lessons from the cancellation of HS2 also showed that major infrastructure projects need to allow sufficient development time to assess alternative options and challenge designs and specifications to control costs. Clarity and consistency on outcomes from the outset are needed to achieve political and public buy-in and deliver value for money.⁸
- The 10-year strategy needs to be underpinned by a credible infrastructure pipeline that attracts investors and that the construction sector can plan around. The most recent iteration of the National Infrastructure and Construction Pipeline lacks detail with too many projects that are more indicative of political aspirations. The pipeline needs to set out tangible investment opportunities and be stable. Projects need to get to market quicker and be subject to less political interference once they are launched. The pipeline could better support investors by providing more detail, including prioritisation, investment and delivery models, risk profiles and maintenance requirements.
- The new National Infrastructure and Service Transformation Authority (NISTA) is an opportunity to address many of these issues with infrastructure planning and delivery. NISTA should retain the benefits of the independent expertise provided by the NIC. It is an opportunity to embed best practice across the government – such as mandating compliance with the Construction Playbook.

⁸ ICE (2024) [ICE briefing paper: the cancellation of HS2’s northern leg – learning lessons](#)

Delivering net zero

- Delays, reversals and inconsistent plans have held back the UK’s decarbonisation progress. Decarbonisation is key to deliver the government’s central mission of economic growth.
- If the right choices are made, decarbonisation can lead directly to new high-quality jobs and markets, revitalised and high-value supply chains, new economic models, successful new technologies and a range of co-benefits, including improved health outcomes and greater economic and infrastructure resilience.
- However, in its latest progress report, the Climate Change Committee (CCC) emphasised that the positive trends speeding up decarbonisation could reverse without strong policies to build on them.⁹
- Decarbonisation progress is fragile. Whilst the UK is on track to meet the fourth and fifth carbon budgets (2023-27 and 2028-32), it is slightly off track for meeting its legally binding sixth carbon budget (2033-2038). More detail is needed on how the government will support growth and meet its net zero ambitions through an updated carbon budget delivery plan.
- Delivering infrastructure and meeting the country’s climate objectives shouldn’t be seen as an either/or choice. Planning and delivering the right infrastructure can go hand in hand with achieving the country’s net zero and environmental ambitions; they should not be pitted against one another.
- The decisions from the previous government to delay, water down or scrap several targets on electric vehicles, phasing out gas boilers and energy efficiency make it harder to see how those targets will be met. Delaying action will also likely cost the economy more in the long term.
- To ensure the UK stays on track to achieve net zero, the following risks to delivery need to be addressed:
 - High-level targets urgently need to be translated into stable policy frameworks and detailed delivery plans supported by long-term funding certainty to achieve the scale and pace of change required.
 - More focus is needed on public engagement and the role of behavioural change in reducing emissions. The public needs the right infrastructure in place before they can change their behaviour. Public engagement must be included within a wider programme of infrastructure upgrades to accelerate the net zero transition.

Enabling public behaviour change

- Public support is integral in meeting the UK’s net zero ambitions. The reality is that the public will need to make changes and will need government support to do so. The government’s upcoming Public Participation Strategy is an opportunity to address some of the barriers to public behaviour change and something the ICE has long called for.
- Public support for net zero is strong, as highlighted in 2024 ICE polling, which identified that over 50% of the UK population is open to changing their behaviour to achieve the net zero transition.¹⁰ Understanding what’s holding people back from making low-carbon choices and shifts in behaviour is vital.
- The ICE and the All Party Parliamentary Group on Infrastructure (APPGI) has recommended that the government:
 - **Develop a national information portal or hub to demystify net zero choices**

⁹ ICE (2024) [5 infrastructure takeaways from the UK’s 2024 net zero progress report](#)

¹⁰ ICE (2024) [APPGI and ICE policy paper: what are the public behavioural changes required to meet net zero?](#)

- **Address structural issues with the market by ensuring energy and electric vehicle companies provide a market response to encourage public take-up.** For heat pumps, this should involve minimising upfront installation costs to incentivise uptake and reduce consumer barriers, as well as extending the existing Green Home Finance Accelerator pilots. Stamp duty incentives could facilitate uptake by encouraging homeowners to invest in heat pump technology when purchasing a property. For Electric Vehicles, this should involve introducing a tax system (based on the previous CO₂-based vehicle tax system) for efficiency based on miles/kWh.
- **Develop a consistent policy framework outlining a long-term plan for an approved pipeline of infrastructure upgrades designed to support change in public behaviours.**

Accelerating clean energy

- The ICE supported the NEPC’s recent report on *Rapid decarbonisation of the GB electricity system*, which sets out what a radical systems approach to electricity system decarbonisation would look like.¹¹ Decarbonising the electricity system needs to be understood as a major infrastructure programme, a whole-systems challenge touching every part of society, and a different proposition from business as-usual policy implementation.
- The NEPC report’s recommendations include strong central leadership and governance with engineering at the forefront, a more proactive approach to ensure procurement and regulation act as enablers of the transition, and urgently implementing the recommendations in Electricity Networks Commissioner’s Report of 2023 to reduce planning & consenting and connection delays while building and maintaining public support.

Replacing fuel duty and vehicle excise duty

- The transition to electric vehicles will also require finding new revenue models to replace lost funding as more vehicles become exempt from fuel duty and vehicle excise duty. While EV sales are slightly below government target, the OBR has forecast that the impact on the £36bn revenue currently raised from motoring taxes will become apparent a lot sooner than anticipated.¹²
- The NIC has highlighted that public attitudes towards congestion charging increased in support when people understood that the revenue raised would be spent on improvements to local transport. A costed programme for public engagement must, therefore, be included within a wider programme of infrastructure upgrades to accelerate the net zero transition.

Climate adaptation and resilience

- The UK’s infrastructure is facing pressures that, for the most part, it was not designed to withstand. It is imperative that climate resilience is prioritised across the spending review. Failing to invest in adapting and maintaining the UK’s infrastructure now means kicking the can down the road for future generations to deal with and will cost much more in the long-run.
- Investing in resilient infrastructure is required not only to respond to the impacts of climate change but also to protect economic interests alongside people and the planet. Without adaptation and improved emergency response to build in greater resilience, our infrastructure will lose its value, repairing damage will be costlier and more frequent, and infrastructure users will face higher levels of disruption.
- A 2024 report from the Public Accounts Committee (PAC), on the government’s approach to extreme weather resilience, highlighted that it is too focused on short-term reactivity and lacks long-term planning and investment for infrastructure

¹¹ NEPC (2024) [Rapid decarbonisation of the GB electricity system](#)

¹² OBR (2022) [What does faster take-up of electric cars mean for tax receipts?](#)

to endure through the most challenging conditions.¹³ The CCC has warned the Third National Adaptation Plan (NAP3) lacks urgency, falls well short of what is needed for the UK to adapt to climate change and called for an urgent refresh.¹⁴

- **The ICE recommends that the UK Government undertake a national review of the economics of adaptation.**¹⁵ To incentivise investment in infrastructure climate resilience and adaptation, the government must first understand the value it provides. One of the challenges with making infrastructure climate resilience and adaptation a priority is that it does not have a market value – currently, it is not measured or rewarded. In addition, it is unclear how the regulatory framework that sets out the parameters for funding these investments values resilience.
- Infrastructure maintenance has been underinvested in and is a neglected policy area. Much more needs to be done to build up awareness of the need for asset maintenance, promote effective governance of assets and develop the skills to maintain them.

The Integrated National Transport Strategy

- Transport connectivity is a key enabler of economic growth as well as decarbonisation. However, England’s current fragmented system of responsibilities for transport planning and delivery means its transport network is not perceived as a whole or planned as an integrated, multi-modal system. It makes it difficult to ensure transport investment is linked to delivering wider societal benefits and meeting the UK’s long-term economic, environmental and social strategic objectives.
- The development of an Integrated National Transport Strategy (INTS) is therefore a welcome step towards more coherent transport planning, greater investment and ensuring value for money, and something the ICE has long called for.¹⁶
- The INTS is an opportunity to think differently about the transport network to ensure it is modern and fit to meet societal challenges and people’s needs in the 2030s and beyond. It should be ‘vision-led’, setting out the government’s wider social, environmental and economic objectives, and the outcomes transport must deliver to help achieve them.
- Like the infrastructure strategy, it should be a genuinely strategic document that enables decision-making at the appropriate level. It should not be weighed down by technical details or a wish list of projects. Nor should it be solely about infrastructure needs but address the broader policy levers needed to deliver its overarching vision.
- Clarity on the strategic role of transport will help accelerate a shift in how investment decisions are made, from a focus on economics and the benefit-cost ratio to giving more weight to the wider societal benefits of projects and programmes.

Unlocking regional growth

- Transport devolution is a huge opportunity to drive growth. The proposals in the Devolution White Paper, including the push towards more Combined Authority-level strategic plans, are welcome. Establishing a ‘golden thread’ of desired transport outcomes would join up planning across different modes, regions and levels of government within a coherent overarching framework. National and subnational bodies responsible for delivery could plan and invest in transport infrastructure and services accordingly, while also responding to local needs.

¹³ Public Accounts Committee (2024) [Government resilience: extreme weather](#)

¹⁴ Climate Change Committee (2024) [Independent Assessment of the Third National Adaptation Programme](#)

¹⁵ ICE (2023) [ICE policy position statement: how can the UK’s infrastructure system be made more climate resilient?](#)

¹⁶ ICE (2023) [ICE policy position statement: a national transport strategy for England](#)

- The transport strategy could support this work by providing the architecture for greater, more formal collaboration – building on the work already underway between national agencies, STBs and other stakeholders. This would help maximise the national benefits of subnational transport investment.