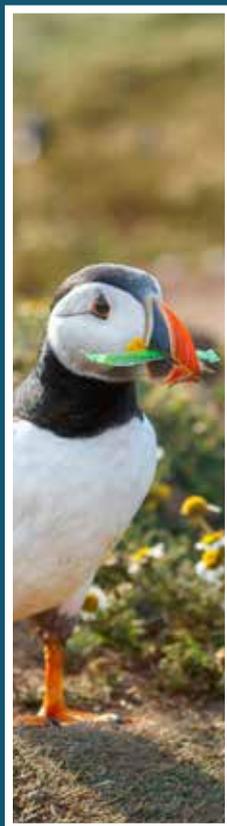
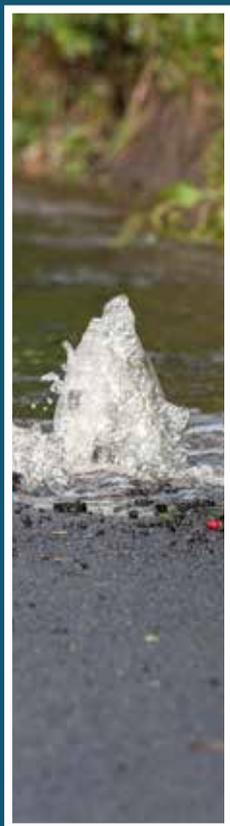


# THE SECOND NATIONAL INFRASTRUCTURE ASSESSMENT: BASELINE REPORT

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## How to respond



**NATIONAL  
INFRASTRUCTURE  
COMMISSION**

Better infrastructure for all

**November 2021**

# How to respond

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Responses should be no longer than ten pages in total (not including supplementary data files) and should be emailed to [NIA2.CfE\\_Responses@nic.gov.uk](mailto:NIA2.CfE_Responses@nic.gov.uk).

The deadline for submissions has been extended to **28 February 2022**.

Evidence will be reviewed thereafter by the Commission. If further information or clarification is required, the team will contact you. The Commission may publish any responses received. If you believe there is a reason why your response or any part of it should be considered confidential, please provide details.

In exceptional circumstances, the Commission will accept responses in hard copy. If you need to submit a hard copy, please send your response to the Commission Secretariat at:

National Infrastructure Commission  
Finlaison House, 15-17 Furnival Street  
London, EC4A 1AB.

The full [Baseline Report](#) is available on our website.

## FOI and Privacy Statements

Information provided in response to this consultation, including personal information, may be subject to publication or disclosure in accordance with the Freedom of Information Act 2000 (FOIA) or other relevant legislation.

If you want information that you provide to be treated as confidential please be aware that, under the FOIA, there is a statutory code of practice with which public authorities must comply and which deals, amongst other things, with obligations of confidentiality.

In view of this, it would be helpful if you could explain to the Commission why you regard the information you have provided as confidential. If the Commission receives a request for disclosure of the information, it will take full account of your explanation, but cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Commission.

The Commission will process your personal data in accordance with relevant data protection law.

# Summary of Call for Evidence questions

## 1. Introduction

- Question 1:** Do the nine challenges identified by the Commission cover the most pressing issues that economic infrastructure will face over the next 30 years? If not, what other challenges should the Commission consider?
- Question 2:** What changes to funding policy help address the Commission's nine challenges and what evidence is there to support this? Your response can cover any number of the Commission's challenges.
- Question 3:** How can better design, in line with the design principles for national infrastructure, help solve any of the Commission's nine challenges for the next Assessment and what evidence is there to support this? Your response can cover any number of the Commission's challenges.
- Question 4:** What interactions exist between addressing the Commission's nine challenges for the next Assessment and the government's target to halt biodiversity loss by 2030 and implement biodiversity net gain? Your response can cover any number of the Commission's challenges.
- Question 5:** What are the main opportunities in terms of governance, policy, regulation and market mechanisms that may help solve any of the Commission's nine challenges for the Next Assessment? What are the main barriers? Your response can cover any number of the Commission's challenges.

**Challenge 1:** The digital transformation of infrastructure – the Commission will consider how the digital transformation of infrastructure could deliver higher quality, lower cost, infrastructure services.

- Question 6:** In which of the Commission's sectors (outside of digital) can digital services and technologies enabled by fixed and wireless communications networks deliver the biggest benefits and how much would this cost?
- Question 7:** What barriers exist that are preventing the widescale adoption and application of these new digital services and technologies to deliver better infrastructure services? And how might they be addressed? Your response can cover any number of the Commission's sectors outside digital (energy, water, flood resilience, waste, transport).

## 2. Reaching net zero

**Challenge 2:** Decarbonising electricity generation – the Commission will consider how a decarbonised, secure and flexible electricity system can be achieved by 2035 at low cost.

- Question 8:** What are the greatest risks to security of supply in a decarbonised power system that meets government ambition for 2035 and what solutions exist to mitigate these risks?

**Challenge 3: Heat transition and energy efficiency** – the Commission will identify a viable pathway for heat decarbonisation and set out recommendations for policies and funding to deliver net zero heat to all homes and businesses.

**Question 9:** What evidence do you have on the barriers to converting the existing gas grid to hydrogen, installing heat pumps in different types of properties, or rolling out low carbon heat networks? What are the potential solutions to these barriers?

**Question 10:** What evidence do you have of the barriers and potential solutions to deploying energy efficiency in the English building stock?

**Challenge 4: Networks for hydrogen and carbon capture and storage** - the Commission will assess the hydrogen and carbon capture and storage required across the economy, and the policy and funding frameworks needed to deliver it over the next 10-30 years.

**Question 11:** What barriers exist to the long term growth of the hydrogen sector beyond 2030 and how can they be overcome? Are any parts of the value chain (production, storage, transportation) more challenging than others and if so why?

**Question 12:** What are the main barriers to delivering the carbon capture and storage networks required to support the transition to a net zero economy? What are the solutions to overcoming these barriers?

### 3. Climate resilience and the environment

**Challenge 5: Asset management and resilience** – the Commission will consider how asset management can support resilience, barriers to investment, and the use of data and technology to improve the way assets are maintained.

**Question 13:** In what ways will current asset management practice need to improve to support better infrastructure resilience? Your response can cover any number of the Commission's sectors.

**Challenge 6: Surface water management** – the Commission will consider actions to maximise short-term opportunities and improve long term planning, funding and governance arrangements for surface water management, while protecting water from pollution from drainage.

The Commission will carry out a separate call for evidence on this challenge, as the Commission will deliver this as a separate study and report to government by November 2022, in advance of its other recommendations.

**Challenge 7: Waste and the circular economy** – the Commission will examine the role of the waste sector in enabling the move towards a more circular economy.

**Question 14:** What are the barriers to and solutions for expanding recycling capacity, both now and in the future to deliver environmental and net zero targets?

**Question 15:** What is the likely environmental impact of waste streams from construction across economic infrastructure sectors, over the next 30 years, and what are the appropriate measures for addressing it?

## 4. Levelling up

Challenge 8: Urban mobility and congestion – the Commission will examine how the development of at scale mass transit systems can support productivity in cities and city regions and consider the role of congestion charging and other demand management measures.

**Question 16:** What evidence is there of the effectiveness in reducing congestion of different approaches to demand management used in cities around the world, including, but not limited to, congestion charging, and what are the different approaches used to build public consensus for such measures?

Challenge 9: Interurban transport across modes – the Commission will consider relative priorities and long term investment needs, including the role of new technologies, as part of a strategic multimodal transport plan.

**Question 17:** What are the barriers to a decision making framework on interurban transport that reflects a balanced approach across different transport modes?

# NATIONAL INFRASTRUCTURE COMMISSION

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**November 2021**