

NATIONAL INFRASTRUCTURE COMMISSION

RESILIENCE STUDY SCOPING CONSULTATION

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1. Introduction

The National Infrastructure Commission provides impartial, expert advice to government on long term infrastructure challenges, through the National Infrastructure Assessment, in-depth studies into the UK's most pressing infrastructure issues as set by government, and an annual monitoring report taking stock of government's progress where it has committed to taking forward recommendations made by the Commission.

Once every five years, the Commission is required to carry out an overall assessment of the UK's infrastructure requirements, looking 30 years ahead, covering all the key sectors of economic infrastructure, namely transport, energy, water and waste water, flood resilience, digital connectivity, and solid waste. Each Assessment is guided by the government's objectives for the Commission to support sustainable economic growth across all regions of the UK, improve competitiveness and improve quality of life. The first Assessment was published in July 2018.

On 29 October 2018, the Chancellor asked the Commission to undertake a study on the resilience of the UK's economic infrastructure. Under the terms of reference for the study the Commission has been asked to:

- a) Review UK and international knowledge and approaches relating to resilience of current and future economic infrastructure systems, including how this can be understood, definitions, ways of assessing resilience, treatment of interdependencies and the management of the risk from different threats and hazards.
- b) Develop an understanding of public expectations and response to the potential loss of infrastructure services and review alternative options and contingency planning, for example, in the light of technological advances such as cyber threats, and behavioural changes.
- c) Develop an analytical approach that can be used to better understand the resilience of economic infrastructure systems, and the costs and benefits of measures to improve this.
- d) Undertake pilot analysis of infrastructure systems (for example through 'stress tests' of sectors, geographical areas or companies) to identify actions to improve the resilience of national infrastructure systems and inform investment decisions.
- e) Make recommendations to government on the resilience of economic infrastructure, how best to assess resilience, sharing of good practice, actions needed and data collection or analysis to inform the next National Infrastructure Assessment.

The full terms of reference for the study can be found at www.nic.org.uk/resilience/

In undertaking the study, the Commission is adopting a two-stage approach:

- a scoping phase, identifying the proposed methods and analysis, to be concluded during spring 2019
- a main stage, including pilot analysis and case studies, concluding with a final report with recommendations, provisionally by spring 2020.

The scoping phase is currently underway to identify a range of frameworks and pilots that will be analysed during the main phase of the study.

About this consultation

The purpose of this consultation is to inform the Commission's development of a framework for considering national infrastructure resilience. In particular, the Commission wishes to gather evidenced views on resilience priorities for the next National Infrastructure Assessment and this study (questions one and two) and on issues emerging from sectoral interdependencies (questions three and four).

Alongside this consultation, the Commission is running workshops and holding bilateral meetings with relevant groups and organisations, as well as discussions with researchers and technical experts.

The consultation will run until **1 April 2019**.

Respondents are invited to address all or any of the questions set out below, and encouraged to reference all evidence and data supporting their responses. Information on how to respond can be found at the end of this document.

2. Consultation questions

Services such as utilities, transport and telecommunications are becoming increasingly sophisticated and interdependent. While this has enabled efficiency improvements and better delivery, it may also mean infrastructure systems are more vulnerable to threats or hazards and disruption could have wide reaching impacts. The role of the National Infrastructure Commission includes considering what action government should take to ensure that infrastructure can cope with future changes, disruptions, shocks and accidents.

The key outcome from the resilience study is expected to be a framework to consider resilience across economic infrastructure, for application during the next National Infrastructure Assessment.

Priorities for the next National Infrastructure Assessment and the resilience study

There are multiple definitions and interpretations of the term resilience. The Commission has not adopted a specific definition of resilience for this study, rather focusing on understanding key priorities. The potentially broad nature of resilience means that it will be essential for the Commission to prioritise the questions that this framework will seek to answer. Prioritisation should consider current and future resilience issues, for the UK economic infrastructure within the scope of this study. The study is expected to focus on transport, energy, water and wastewater and digital communications infrastructure.

The National Infrastructure Assessment included transport, digital communications, energy, water and wastewater, solid waste and flood risk management. Work to date has identified that the solid waste sector generally has longer timescales between hazard emergence and service impact and less interdependency with other infrastructure sectors, so it is not proposed to consider it in detail during the remainder of this study. Flood risk is considered as a cross-cutting hazard, rather than a separate infrastructure sector.

The study's Terms of Reference exclude issues relating to foreign ownership, specific critical national infrastructure assets, industrial relations, national security concerns, the security of supply chains, and issues relating to the UK's withdrawal from the European Union.

Given its strategic role, the Commission also believes it is likely to add the most value by focusing on cross sectoral, systemic and long term issues.

Q1: What are the key questions that the next National Infrastructure Assessment should answer about resilience?

Q2: On the basis of your response to question 1, what issues should be prioritised in the resilience study?

Resilience issues emerging from sectoral interdependencies

The Commission intends to avoid duplicating risk and resilience assessments undertaken by infrastructure operators, regulators and government departments.

As such, the framework developed through this study should seek to address the gaps in existing assessments, whilst considering where the Commission can best add value to, or beyond, existing initiatives.

Initial literature reviews and engagement have suggested that issues arising from cross-sectoral interdependencies (eg energy and digital and/or energy and transport) are currently not fully understood or acted upon.

Q3: Are there specific (e.g. policy, knowledge, data sharing or other) barriers to addressing resilience emerging from cross-sectoral interdependencies?

Q4: Are there any examples in which barriers to resilience issues, arising from sectoral interdependencies or other causes, have been addressed or overcome?

3. How to respond

Responses must be no longer than one A4 page per question (minimum font size of 10 pt) and should be emailed to: **resilience@nic.gov.uk**

The deadline for submissions is **1 April 2019**.

Evidence will be reviewed thereafter by the Commission. If further information or clarification is required, the Commission Secretariat will contact you. We 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:

Resilience Study Consultation
National Infrastructure Commission
Finlaison House
15-17 Furnival Street
London EC4A 1AB

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.

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