Tritax Symmetry (Hinckley) Limited

HINCKLEY NATIONAL RAIL FREIGHT INTERCHANGE

The Hinckley National Rail Freight Interchange Development Consent Order

Project reference TR050007

Environmental Statement
Volume 2: Appendices

Appendix 18.4: IEMA's Steps Involved in Assessing Climate Change Resilience and Adaptation in EIA and Determining the Significance

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Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 Regulation 5(2)(a)

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 Regulation 14

This document forms a part of the Environmental Statement for the Hinckley National Rail Freight Interchange project.

Tritax Symmetry (Hinckley) Limited (TSH) has applied to the Secretary of State for Transport for a Development Consent Order (DCO) for the Hinckley National Rail Freight Interchange (HNRFI).

To help inform the determination of the DCO application, TSH has undertaken an environmental impact assessment (EIA) of its proposals. EIA is a process that aims to improve the environmental design of a development proposal, and to provide the decision maker with sufficient information about the environmental effects of the project to make a decision.

The findings of an EIA are described in a written report known as an Environmental Statement (ES). An ES provides environmental information about the scheme, including a description of the development, its predicted environmental effects and the measures proposed to ameliorate any adverse effects.

Further details about the proposed Hinckley National Rail Freight Interchange are available on the project website:

[redacted]

The DCO application and documents relating to the examination of the proposed development can be viewed on the Planning Inspectorate's National Infrastructure Planning website:

https://infrastructure.planninginspectorate.gov.uk/projects/east-midlands/hinckley-national-rail-freight-interchange/

Appendix 18.4 ◆

IEMA'S STEPS INVOLVED IN ASSESSING CLIMATE CHANGE RESILIENCE AND ADAPTATION IN EIA AND DETERMINING THE SIGNIFICANCE

Table 18.4.1: Steps Involved in Assessing Climate Change Resilience and Adaptation in EIA

Preapplication Stage	**Pre-EIA**	**Step 0:** Building climate resilience into the project	• Consider the resilience of the project to climate change impacts during the design stage, including early phases of design. This can be done through delivery of a climate change risk assessment, or by following the principles set out in Steps 2 - 6 below; • Identify appropriate mitigation measures (to reduce the effect of impacts) and incorporate these into design as necessary; and • Reflect the outcome of design for resilience in the Environmental Statement under the description of the project/alternatives studied.
	Scoping	**Step 1:** Scoping CC Requirements for the EIA	• Identify the scale and scope of the project, including design life; • Identify the climate change projections for use in the assessment; • Identify key climatic variables relevant to the project; • Identify likely effects; and • Engage with and discuss the above with stakeholders/regulators.
	EIA / Environmental Statement	**Step 2:** Defining the future (climate) baseline	• Define baseline conditions under historic/existing climate conditions; • Define future baseline, using selected climate change projections. This will summarise projected changes in key climate variables (e.g. increase in

			rainfall, increase in mean summer temperature, wind strength); and • Produce summary of projected future climate changes for non-climate expert audience.	
		Step 3: Identifying and determining sensitivity of receptors	**Climate Resilience** • Identify receptors within the elements of the project; • Evaluate the selected receptors to identify their susceptibility and vulnerability as well as their importance.	**In-Combination Climate Impacts** • Collate the receptors identified relevant to the location, nature and scale of the project and the likely effects identified as part of the EIA and to be reported within the Environmental Statement; and • Evaluate the selected receptors whether the susceptibility and vulnerability as well as their value/ importance changes with future climatic projections identified in Step 2.
		Step 4: Reviewing and determining magnitude of the effect	**Climate Resilience** • Review effects likely to arise from the project identified at Step 2; and • Consider probability and consequence to determine the magnitude of the effect.	**In-Combination Climate Impacts** • Collate the likely effects identified as part of the EIA and to be reported within the Environmental Statement: and • Consider the magnitude of the effects identified by other topics and evaluate whether the probability and/or

				consequence of the effect changes with future climatic projections.
		Step 5: Determination of significance	**Climate Resilience** • Use the sensitivity of receptors identified at Step 3 and the magnitude of the effect identified at Step 4 alongside professional judgement to determine whether the effect is significant/the degree of effect.	**In-Combination Climate Impacts** • Assess the significance of the project effects under the existing climate baseline using standard methodologies for each relevant environmental topic; • Assess the in-combination climate impact applying the significance criteria developed by the relevant environmental topics and using the outcome of the evaluation of sensitivity of receptors/magnitude of effect identified at Step 3 and Step 4; and • Determine whether the significance/degree of the effect remains the same or changes with the future climate conditions.
		Step 6: Developing additional adaptation/ EIA mitigation measures	• Identify additional (secondary) mitigation measures against timescale of future likely significant effects; • Fixed elements for full duration need mitigation built in based on predicted climate effects (less	

			desirable); • Project elements subject to maintenance/future change can have mitigation set for future implementation based on actual climate effects being observed (more desirable); and • Prepare, if appropriate, a Climate Change Resilience and Adaptation Plan that covers the above and includes allocation of responsibilities and funding streams.
Post EIA Stage		**Step 7**: Monitoring and Adaptive Management	• Implement project mitigation measures/Climate Change Resilience and Adaptation Plan; and • Review and approval with stakeholders based on evidence of effects on emerging baseline.

Table 18.4.2: Criteria for determining a receptor's susceptibility to climate change

Susceptibility Category	Description (probability and frequency of occurrence)
High susceptibility	Receptor has no ability to withstand/not be substantially altered by the projected changes to the existing/prevailing climatic factors (e.g. lose much of its original function and form).
Moderate susceptibility	Receptor has some limited ability to withstand/not be altered by the projected changes to the existing/prevailing climatic conditions (e.g. retain elements of its original function and form).
Low susceptibility	Receptor has the ability to withstand/not be altered much by the projected changes to the existing/prevailing climatic factors (e.g. retain much of its original function and form).

Table 18.4.3: Criteria for determining a receptor's resilience to climate change

Vulnerability Category	Description (probability and frequency of occurrence)
High vulnerability	Receptor is directly dependent on existing/prevailing climatic factors and reliant on these specific existing climate conditions continuing in future (e.g. river flows and groundwater level) or only able to tolerate a very limited variation in climate conditions.
Moderate vulnerability	Receptor is dependent on some climatic factors but able to tolerate a range of conditions (e.g. a species which has a wide geographic range across the entire UK but is not found in southern Spain).
Low vulnerability	Climatic factors have little influence on the receptors (consider whether it is justifiable to assess such receptors further within the context of EIA – i.e. it is likely that such issues should have been excluded through the EIA scoping process).

Table 18.4.4: Criteria for likelihood of effect

Likelihood Category	Description (probability and frequency of occurrence)
Very High	The event occurs multiple times during the lifetime of the project (60 years), e.g. approximately annually, typically 60 events.
High	The event occurs several times during the lifetime of the project (60 years), e.g. approximately once every five years, typically 12 events.
Medium	The event occurs limited times during the lifetime of the project (60 years), e.g. approximately once every 15 years, typically 4 events.
Low	The event occurs during the lifetime of the project (60 years), e.g. once in 60 years.
Very Low	The event may occur once during the lifetime of the project (60 years).

Table 18.4.5: Criteria for magnitude of change

Consequence of Impact	Description
Very Large Adverse	Permanent damage to structures/assets; Complete loss of operation/service; Complete/partial renewal of infrastructure; Serious health effects, possible loss of life; Extreme financial impact; and Exceptional environmental damage.
Large Adverse	Extensive infrastructure damage and complete loss of service; Some infrastructure renewal; Major health impacts; Major financial loss; and Considerable environmental impacts.
Moderate Adverse	Partial infrastructure damage and some loss of service; Moderate financial impact; Adverse effects on health; and Adverse impact on the environment.
Minor Adverse	Localised infrastructure disruption and minor loss of service; No permanent damage, minor restoration work required; and Small financial losses and/or slight adverse health or environmental effects.
Negligible	No damage to infrastructure; No impacts on health or the environment; and

Consequence of Impact	Description
	No adverse financial impact.