

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 18.3: Assumptions for Emissions from Vehicles and Rail During Operational Phase

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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:

<http://www.hinckleynrfi.co.uk/>

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 18.3 ◆

ASSUMPTIONS FOR EMISSIONS FROM VEHICLES AND RAIL DURING CONSTRUCTION STAGE AND OPERATIONAL PHASE

Vehicular emissions

18.3.1 24-hour annual average daily traffic (AADT) flows for Light Duty Vehicle ('LDV') and Heavy Duty Vehicles ('HDV') were provided by the transport consultants for the baseline, future year 'Do-minimum' and future year 'Do-something' scenarios for the Construction Stage and set-out in Table 18.3.1:

- Baseline year without HNRFI (2019);
- Future Year 'Do-minimum' (without HNRFI, 2026); and
- Future Year 'Do-something' (with the completed HNFRI, 2026).

Table 18.3.1: Traffic data assumptions for the construction stage

	Baseline Year (2019)		Do Minimum (2026)		Do Something (2026)	
	LDV	HDV	LDV	HDV	LDV	HDV
Average Total Network*	3,839,770	501,160	4,161,102	514,426	4,161,352	514,565
**Daily Flow Increase	-	-	-	-	250	139

**All values 24-hour AADT. Trips are an average of total link lengths*

***predicted traffic generation by HNRFI is based upon flows as set-out in Chapter 8: Transport and Traffic*

18.3.2 24-hour annual average daily traffic (AADT) flows for Light Duty Vehicle ('LDV') and Heavy Duty Vehicles ('HDV') were provided by the transport consultants for the baseline, future

year ‘Do-minimum’ and future year ‘Do-something’ scenarios for the operational phase and set-out in Table 18.3.2:

- Baseline year without HNRFI (2019);
- Future Year ‘Do-minimum’ (without HNRFI, 2036); and
- Future Year ‘Do-something’ (with the completed HNRFI, 2036).

Table 18.3.2: Traffic data assumptions for the operational phase

	Baseline Year (2019)		Do Minimum (2036)		Do Something (2036)	
	LDV	HDV	LDV	HDV	LDV	HDV
Average Total Network*	3,839,770	501,160	4,525,180	527,692	4,534,024	546,854
<i>*Daily Occupier Increase</i>	-	-	-	-	8,844	19,162

**All values 24-hour AADT. Trips are an average of total link lengths*

***predicted traffic generation by HNRFI is based upon flows as set-out in Chapter 8: Transport and Traffic*

18.3.3 Fleet composition was provided in the form of a uniform HDV/LDV split for each trip rate expected to be generated under construction and operational circumstances. Mean vehicle speeds for the links used in the assessment were estimated as an average based on maximum permitted speeds in the area and analysis of the road. In the absence of pre-defined distances for commuter vehicles (‘LDV’), the most recent UK average journey distance as defined by the National Travel Survey¹ (8.4 miles/13.1 km) was applied. The roads were classified as ‘England (not London)’ as applicable. Assumptions of the annual inputs used in the carbon modelling are provided in the Table 18.3.3.

¹ Department for Transport (2019); National Travel Survey England. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/906276/national-travel-survey-2019.pdf

Table 18.3.3: Annual inputs used in the carbon modelling

HNRFI Site Traffic (Do Something (2036))	
Average Journey Length (LDV)	13 km
Average Journey Length (HDV)*	75 km
Road Type	England (not London)
Assumed load	100%
Average vehicle speed **	68 kph / 42mph

**Average link length as set-out by AECOM (2018): Hinckley National Rail Freight Interchange Strategic Modelling: HNRFI Trip Distribution*

***Based upon the average of posted speed limits (30, 60 and 70 mph) of the roads surrounding HNRFI*

Rail emissions

18.3.4 Due to COVID-19, current timetabling for the rail passengers is not reflective of normal operational circumstances. Furthermore, publicly available timetabling does not account for rail freight. Rail assumptions are therefore calculated on the assumptions as set-out and verified by Baker Rose Consulting LLP, the appointed rail consultant, who provided the rail capacity modelling.

18.3.5 During operations, rail freight is expected to increase by a total of 16 trains a day (32 movements). It is expected that Class 66 and 70 (both diesel) trains will comprise the majority of this fleet, with some (up to 2) Class 768 (bimodal diesel electric) trains facilitating delivery. Both the Class 66 and 70 are diesel-electric freight locomotives, with two-stroke diesel noted as the prime mover.

18.3.6 The average weight of train freight has been assumed to be 3,000 tonnes within GHG. The average length of a single rail freight haul is approximately 150km².

² Government for Science (February 2019): Understanding the UK Freight Transport System.