Approach to sustainability

This factsheet outlines HS2 Ltd's approach to sustainability.
1 Introduction

1.1.1 High Speed Two (HS2) is the Government’s proposal for a new, high speed north-south railway. The proposal is being taken forward in phases: Phase One will connect London with Birmingham and the West Midlands. Phase 2a will extend the route to Crewe. Phase 2b will extend the route to Manchester, Leeds and beyond (the ‘Proposed Scheme’).

1.1.2 The construction and operation of Phase One of HS2 is authorised by the High Speed Rail (London – West Midlands) Act (2017). In July 2017, the Government introduced a hybrid Bill to Parliament to seek powers for the construction and operation of Phase 2a. A hybrid Bill to seek powers for the construction and operation of Phase 2b is expected to be introduced to Parliament in 2020.

1.1.3 HS2 Ltd is the non-departmental public body responsible for developing and promoting these proposals. The company works to a Development Agreement made with the Secretary of State for Transport.

1.1.4 The work to produce the Phase 2b Bill will include an Environmental Impact Assessment (EIA), the results of which will then be reported in an Environmental Statement (ES). The ES would be submitted alongside the Phase 2b Bill when it is introduced to Parliament. The emerging findings of the EIA are reported in a working draft Environmental Statement (WDES)\(^1\) that is being consulted on in late 2018.

1.1.5 As was the case with Phase One and Phase 2a, when the Phase 2b Bill is introduced to Parliament the Secretary of State will also publish draft Environmental Minimum Requirements (EMRs). The EMRs will set out the environmental and sustainability commitments that will be observed in the construction of Phase 2b.

1.1.6 A series of information papers were produced for the Phase One and Phase 2a hybrid Bills, explaining the commitments made in those Bills and EMRs. It is the Secretary of State’s intention to follow a similar process for the Phase 2b Bill. These information papers for Phase 2b will be used to provide information about Phase 2b itself, the powers contained in the Phase 2b Bill when it is introduced to Parliament and how decisions on Phase 2b have been reached. It

---

\(^1\) The WDES presents draft environmental information based on a stage in the ongoing design and assessment process for the Proposed Scheme. It includes a description of the existing environment; an evaluation of the anticipated environmental impacts of the Proposed Scheme; and the measures currently being proposed to manage these anticipated impacts. The WDES will be updated for the preparation of the formal ES to reflect any changes made to the Proposed Scheme following consultation, and any changes made following further work on the design and EIA, between now and when the ES is submitted alongside the hybrid Bill. A guidance document explaining the contents of the WDES and how to navigate it has been produced alongside the WDES.
is currently proposed that these information papers for Phase 2b will be published at the time the Phase 2b Bill is introduced in Parliament.

1.1.7 The Secretary of State for Transport will be ‘the Promoter’ of the Phase 2b Bill. The Promoter will also eventually appoint a body responsible for delivering the Proposed Scheme under the powers to be granted by the Phase 2b Bill. This body will be known as the ‘nominated undertaker’. There may well be more than one nominated undertaker. However, any and all nominated undertakers will be bound by the obligations contained in the Phase 2b Bill, the policies established in the Phase 2b EMRs and any commitments provided in the Phase 2b information papers.

1.1.8 These Phase 2b factsheets have been produced to provide information on the emerging proposals for measures to manage the design process for Phase 2b and to control impacts which may arise from the construction and operation of the Proposed Scheme. These measures may then be applied to Phase 2b as commitments made through the eventual Phase 2b Bill, EMRs or information papers.

2 Overview

2.1.1 This information paper explains HS2 Ltd.’s approach to sustainability.

3 Sustainability principles

3.1.1 HS2 Ltd.’s Sustainability Policy initially focused on HS2 Ltd.’s approach to environmental sustainability. Since 2015, HS2 Ltd has continued to develop its approach to sustainability in order to define sustainability in the broadest sense so that it encompasses both social and economic as well as environmental sustainability.

3.1.2 As a result, HS2 Ltd has adopted an updated Sustainability Policy (which is included in Appendix 1), which sets out the five sustainability themes for the HS2 programme. These five themes are:

- **Spreading the benefits**: economic growth and community regeneration
- **Opportunities for all**: skills, employment and education
- **Safe at heart**: health, safety and wellbeing
- **Respecting our surroundings**: environmental protection and management
- **Standing the test of time**: design that is future-proof
3.1.3 These Sustainability Policy themes are further described in our Sustainability Approach Document.

3.1.4 In support of the Sustainability Policy, the HS2 Ltd Environmental Policy continues to set out HS2 Ltd.’s principles for environmental sustainability. HS2 Ltd.’s Environmental Policy principles cover the following environmental topics:

- Biodiversity
- Landscape
- Noise and vibration
- Carbon
- Climate change combined effects
- Air quality
- Water resources
- Historic environment
- Soils and agriculture
- Sustainable materials and waste

3.1.5 The Environmental Policy is set out in Appendix 2 of this factsheet.

4 Sustainability and the circular economy

4.1.1 To complement the principles identified in both the Sustainability Policy and the HS2 Sustainability Approach Document to using resources efficiently, HS2 Ltd will adopt the principles of the circular economy for the HS2 Project.

4.1.2 The principles of the circular economy, as opposed to the principles of the traditional linear economy (e.g. make, use, dispose), are for resources to be kept in use at their highest quality and value for as long as possible with minimal inputs and outputs. Resources are thought of in terms of materials, water, energy and carbon, as well as natural and social capital.

4.1.3 The circular economy is more than simply recycling: it involves looking at the entire life cycle of any process, creating and optimising value by reconsidering what might be seen as waste or system losses and identifying opportunities to reduce these to achieve the best whole-life outcome.

4.1.4 HS2 Ltd will adopt the following principles of the circular economy from concept, through design, construction and operation:

5 External assessment

5.1.1 To monitor the commitments made within the Sustainability and Environmental Policies HS2 Ltd will be assessing the design and construction of the stations, depots and other railway buildings to be constructed as part of the Proposed Scheme with BREEAM (Building Research Establishment Environmental Assessment Method) New Construction Non Domestic criteria. BREEAM sets the standard for best practice in sustainable design and has become the de facto measure used to describe environmental performance of buildings. HS2 Ltd has set a target that all its stations, depots and other railway buildings to be constructed for the HS2 project will achieve a minimum of an Excellent rating in this standard.

5.1.2 To ensure that our infrastructure is designed and constructed to a similar high standard, HS2 Ltd plans to use a recognised environmental rating system to assess the infrastructure works – Enabling Works, Main Works Civils and Rail Systems.

6 Sustainability and the independent HS2 Design Panel

6.1.1 In November 2015, the then Secretary of State established an independent HS2 Design Panel, so as to ensure that designs of major stations and structures and other related design aspects of the new railway will complement local aspirations and contribute to the natural and built environment. Sadie Morgan is Chair of the HS2 Design Panel and a pool of panel members covering all design disciplines has been appointed to independently assist the design challenge.

6.1.2 In 2017, the Design Panel took on an extended role to provide independent advice on sustainability. This involves advising on issues such as carbon, the circular economy, and climate change resilience – in addition to the sustainability aspects of stations and civil engineering structures.
7 Embedding sustainability principles into the Proposed Scheme

7.1.1 The Phase Two “Sustainability Statement”³ was published in 2013 as part of the HS2 Phase Two route consultation and described the proposed route at that stage of development, how sustainability issues were considered and incorporated to assist decision making, and highlighted key sustainability impacts – both beneficial and adverse – that were envisaged at this stage.

7.1.2 Following this, the “Phase 2b Sustainability Statement including post-consultation Sustainability Report”⁴ described the extent to which the 2016 preferred scheme would satisfy sustainable development objectives and identified some potential significant effects. During the EIA process, the potential significant effects identified in the Sustainability Statement and the post-consultation Sustainability Report will be reviewed and assessed in the context of the Proposed Scheme. Significant effects will be reduced and mitigated where practicable and further opportunities for delivering an exemplar sustainable design will be identified.

8 More information

8.1.1 Further factsheets and details on the Proposed Scheme, including the working draft Environmental Statement documents, can be found at: www.hs2.org.uk/phase2b

Appendix 1 HS2 Ltd’s Sustainability Policy

Sustainability Policy

Purpose:
This policy sets out HS2 Ltd’s ambition to build the most sustainable high speed railway of its kind in the world. We want a high speed railway network which changes the mode of choice for inter-city journeys, reinvigorates the rail network, supports the economy, creates jobs, reduces carbon emissions and provides reliable travel in a changing climate throughout the 21st century and beyond.

Principles:
Sustainability at HS2 is about delivering social, environmental and economic benefits. This includes delivering value to the UK taxpayer and passenger through taking decisions that seek to get the best value for money through the whole operating life of the railway.

Our sustainability approach at HS2 groups our work into five themes reflecting the economic, environmental and social aspects of sustainability. These themes support the HS2 vision of being a catalyst for growth across Britain and our mission, which includes being an exemplar project in our approach to engagement with communities, sustainability and respecting the environment.

Our five sustainability themes are:

- **Spreading the benefits:** Economic growth and community regeneration
  - Being a nationwide catalyst for regeneration and economic growth through development of an integrated transport system, maximising the benefits to communities and individuals and minimising any potential negative impacts.

- **Opportunities for all:** Skills, employment and education
  - Providing rewarding jobs and careers that are open to all in society, setting new standards for equality, diversity and inclusion and providing a legacy of skills, training, expertise and experience.

- **Safe at heart:** Health, safety and wellbeing
  - Creating a world class “safe at heart” culture, where no one gets hurt, and which prioritises the health and wellbeing of those who build, operate, use and work on HS2 services and infrastructure.

- **Respecting our surroundings:** Environmental protection and management
  - Breaking new ground wherever possible on environmental standards including resource use, waste, carbon minimisation, the protection of the natural and historic environment and safeguarding communities.

- **Standing the test of time:** Design that is future-proof
  - Building a network that is resilient to climate change in the long term, adaptable to future trends and demands, and built around the needs of the people who will use it, in line with our Design Vision.

We will only be successful in this huge undertaking if sustainability is embedded in our DNA. Sustainability is a way of working within the HS2 culture, alongside innovation and collaboration. We will promote innovation to find sustainable solutions focusing on ideas and technologies for improving sustainability. We cannot deliver our ambition alone; we will work with our contractors to engender a collaborative culture to ensure we get the innovation we need to deliver a sustainable railway.

Executive Owner: The Technical Director is the Executive Owner of this policy and is responsible for maintaining the accuracy and relevance of its contents and for periodic review and update to reflect the changing circumstances.

Please also refer to:
- HS2 Sustainability Approach Document
- HS2 Equality Diversity and Inclusion Policy
- HS2 Environmental Policy
- HS2 Health & Safety Policy
- HS2 Circular Economy Principles

Approved on: 18 May 2017
Mark Thurston, Chief Executive Officer, HS2 Ltd

Document Number: HS2-5SU-POL-000-000003 Revision P00
Appendix 2 HS2 Ltd.’s Environmental Policy

Environmental Policy

Purpose:
This policy provides a framework for environmental protection and management for HS2 and its operations. It also acts to fulfil the environmental commitments established through HS2’s Sustainability Policy and our strategic goal of creating an environmentally sustainable solution and being a good neighbour to local communities.

HS2 Ltd., in its planning, construction and operation of the railway, is committed to developing an exemplar project, and to limiting negative impacts through design, mitigation and by challenging industry standards whilst seeking environmental enhancements and benefits.

In addition, HS2 Ltd. commits to protecting the environment through the avoidance and prevention of pollution, and by meeting all compliance obligations.

HS2 Ltd. commits to continuously improving environmental performance, by means of establishing relevant objectives appropriate to the nature, scale and environmental impacts of the organisation and the project.

Our Environmental Principles:
Environmental Protection and Management is one of five key themes established in HS2’s Sustainability Policy. In order to guide and manage our potential environmental impacts, we will seek to:

- achieve no net loss in biodiversity, reducing impacts on species and creating and enhancing habitats;
- design visible elements of the built and landscaped environment in both rural and urban areas to be sympathetic to their local context, environment and social setting;
- effectively manage and control noise and vibration to avoid significant adverse impacts on health and quality of life;
- minimise the carbon footprint of HS2 and deliver low-carbon, long-distance journeys that are supported by low-carbon energy;
- minimise the combined effect of the project and climate change on the environment;
- avoid pollutant emissions to air or reduce such emissions, and minimise public and workforce exposure to any such pollutant emissions;
- protect water resources and ensure no material increase of flooding to communities;
- reduce harm to the historic environment and deliver a programme of heritage mitigation including knowledge creation through investigation, reporting, engagement and archiving;
- reinstate agricultural land to its original quality where it has been disturbed as a result of construction; and
- source and make efficient use of sustainable materials, reduce waste and maximise the proportion of material diverted from landfill.

Executive Owner:
The Technical Director is the Executive Owner of this policy and is responsible for maintaining the accuracy and relevance of its contents and for periodic review and update to reflect the changing circumstances.

Mark Thurston
Chief Executive Officer
HS2 Ltd

Approved on: 11 April 2017

Document Number: HS2-HS2-EV-POL-00000024 Revision P03