HS2

Meet the Contractor

Sustainability and Environment Workshop

Purpose

We need suppliers to help us to….

- Reduce the environmental footprint
- Increase the environmental outcomes

Sub-contract requirements

- Comply with the Environmental Minimum Requirements (EMRs)
- Environmental Management Systems

Sub-contract requirements

- **Monthly reporting on environment & sustainability metrics (online tool, tailored)**

Sub-contract requirements

- Materials
- Responsible sourcing

Sub-contract requirements

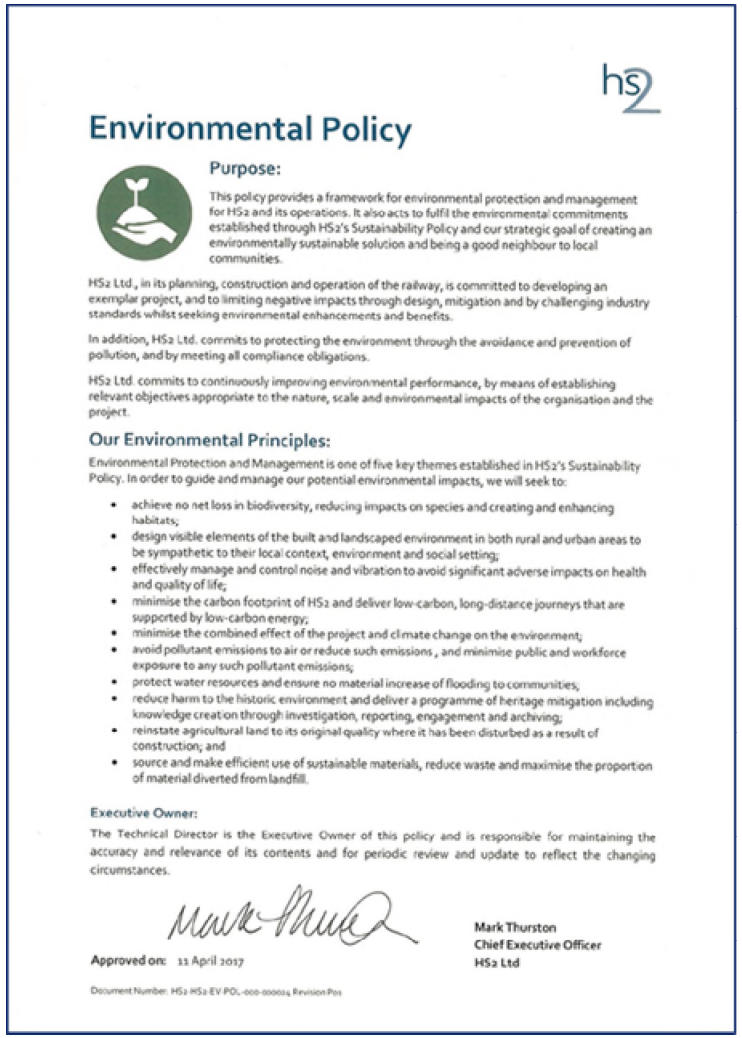
- Ecology and Biodiversity
- Reducing Carbon Footprint
- Reducing water consumption

Sub-contract requirements

- Plant and vehicles

Tendering lessons

- Communication of requirements
- Tender periods
- Experience
- Reporting
- Procedures
- Collaboration



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.

Approved on: 11 April 2017

Mark Thurston
Chief Executive Officer
HS2 Ltd

Document Number: HS2-HS2-EV-POL-000-000014 Revision P01

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, learning, 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 host 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 focussing 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

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What contractors can do for suppliers

- EMS / EMP
- Training and Welfare
- Continual improvement

Winning future opportunities

Conclusions

- Focus on outcomes
- High level of requirements
- Reporting requirements
- Innovation
- Collaboration
- Support

Questions?

Helpful resources

HS2 published documents available online:

- HS2 Sustainability Policy: https://www.gov.uk/government/publications/hs2-sustainability-policy
- HS2 Environment Policy: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/616657/HS2_Environmental_Policy_P01.pdf
- HS2 Equality, Diversity and Inclusion policy: https://www.gov.uk/government/publications/hs2-equality-diversity-and-inclusion-policy
- Information Papers – E series e.g. E10 Carbon, E23 Construction Noise, E31 Air Quality & E32 Soil handling: https://www.gov.uk/government/publications/hs2-information-papers-environment
- HS2 Circular Economy Principles: https://www.gov.uk/government/publications/hs2-circular-economy-principles

Helpful resources

HS2 published documents available online:

- HS2 Air Quality Strategy: https://www.gov.uk/government/publications/hs2-air-quality-strategy
- Undertakings and Assurance Register: https://www.gov.uk/government/publications/high-speed-rail-london-west-midlands-bill-register-of-undertakings-and-assurances
- Environmental Minimum Requirements: https://www.gov.uk/government/publications/environmental-minimum-requirements
- Code of Construction Practice: https://www.gov.uk/government/publications/environmental-minimum-requirements
- Local Environmental Management Plans: https://www.gov.uk/government/publications/local-environmental-management-plans-for-hs2-phase-one

Helpful resources

Example of reporting:

Topic	Metrics			Notes
	Design	Construction / onsite works	Operation (in draft) Further metrics to be developed	
Carbon	Change in total carbon footprint against baseline (%) (forecasted)	Change in total carbon footprint against baseline (%) (forecasted)		Carbon reporting will in line with the Technical Standard - Carbon footprinting & life cycle assessment (monitoring) (HS2-HS2-SU-STD-000-000010)
	Total carbon footprint (tCO2e) (forecasted)	Total carbon footprint (tCO2e) (forecasted)		
	Construction carbon footprint (against construction carbon baseline) (tCO2e) (forecasted)	Construction carbon footprint (against construction carbon baseline) (tCO2e)		
	Operational carbon footprint (against operational carbon baseline) (tCO2e) (forecasted)	Operational carbon footprint (against operational carbon baseline) (tCO2e) (forecasted)		
	Embedded carbon footprint (tCO2e) (forecasted)	Embedded carbon footprint (tCO2e)		
	Transport of construction materials carbon footprint (tCO2e) (forecasted)	Transport of construction materials carbon footprint (tCO2e)		
	Construction activity carbon footprint (tCO2e) (forecasted)	Construction activity carbon footprint (tCO2e)		
	Land use change / clearance carbon footprint (tCO2e) (forecasted)	Land use change / clearance carbon footprint (tCO2e)		
	Buildings in use carbon footprint (tCO2e) (forecasted)	Buildings in use carbon footprint (tCO2e) (forecasted)	Buildings in use carbon footprint (tCO2e)	
	Infrastructure in use carbon footprint (tCO2e) (forecasted)	Infrastructure in use carbon footprint (tCO2e) (forecasted)	Infrastructure in use carbon footprint (tCO2e)	
	Rolling stock in use carbon footprint (tCO2e) (forecasted)	Rolling stock in use carbon footprint (tCO2e) (forecasted)	Rolling stock in use carbon footprint (tCO2e)	
	Modal shift carbon footprint (tCO2e) (forecasted)	Modal shift carbon footprint (tCO2e) (forecasted)	Modal shift carbon footprint (tCO2e)	
	Tree planting carbon footprint tCO2e) (forecasted)	Tree planting carbon footprint (tCO2e) (forecasted)	Tree planting carbon footprint (tCO2e)	
	Surface access carbon footprint (tCO2e) (forecasted)	Surface access carbon footprint (tCO2e) (forecasted)	Surface access carbon footprint (tCO2e)	
		Construction energy use (MWh)	Operational energy use (MWh)	BREEAM requirements (Buildings): Energy Consumption: • Monitor and record data on principal constructor's and subcontractors' energy consumption in kWh (and where relevant, litres of fuel used) as a result of the use of construction plant, equipment (mobile and fixed) and site accommodation. • Report the total carbon dioxide emissions (total kgCO2/project value) from the construction process via the BREEAM Assessment Scoring and Reporting tool.
		Generation / procurement of low or zero carbon energy (MWh)	Generation / procurement of low or zero carbon energy (MWh)	