

H2Teesside Project

Environmental Statement

Planning Inspectorate Reference: EN070009 APP/6.3

Land within the boroughs of Redcar and Cleveland and Stockton-on-Tees, Teesside and within the borough of Hartlepool, County Durham

Document Reference: 6.3 Volume II (Figures) – Cover and Contents

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended)

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



Applicant: H2 Teesside Ltd

Date: March 2024

Rev: 0

CONTENTS

Figure 1-1	Proposed Development Location
Figure 3-1	Environmental Constraints within 1 km of the Proposed Development Site Boundary
Figure 3-2	Water Constraints within 5 km of the Proposed Development Site Boundary
Figure 3-3	Non-Statutory Ecological Constraints within 1 km of the Proposed Development Site Boundary
Figure 3-4	Statutory Designated Ecological Sites within 15 km of the Proposed Development Site Boundary
Figure 4-1	Proposed Development Site (including location of the Main Site)
Figure 4-2	Parts of the Proposed Development Site
Figure 4-3	CO ₂ Export Corridor
Figure 4-4	Hydrogen Pipeline Corridor
Figure 4-5	Natural Gas Connection Corridor
Figure 4-6	Electrical Connection Corridor
Figure 4-7	Water Connections Corridor
Figure 4-8	Other Gases Connection Corridor (O ₂ and N ₂)
Figure 5-1	Construction Access and Temporary Compounds
Figure 5-2	Indicative Pipeline Routing
Figure 6-1	Proposed Development Site Evolution
Figure 6-2	Main Site Alternatives
Figure 8-1	Air Quality Study Area – Human Health Receptors and Monitoring
Figure 8-2	Air Quality Study Area – Ecological Receptors
Figure 8-3	Air Quality Study Area – Construction Road Traffic Locations
Figure 8-4	Air Quality Study Area – Operational Model Inputs Phase 1
Figure 8-5	Air Quality Study Area – Operational Model Inputs Phase 2
Figure 8-6	Annual Mean NO ₂ Process Contribution for the Proposed Development during Normal Operations for Phase 1 and 2 Combined – for the Worst Affected Meteorological Year of 2022
Figure 8-7	99.79th Percentile 1h NO ₂ Process Contribution for the Proposed Development during Normal Operations for Phase 1 and 2 Combined – for the Worst Affected Meteorological Year of 2021

Figure 8-8	99.79th Percentile 1h NO2 Process Contribution for the Proposed Development during Emergency Operations for Phase 1 and 2 Combined – for the Worst Affected Meteorological Year of 2022
Figure 8-9	99.79th Percentile 1h NO2 Process Contribution for the Proposed Development during Start Up for Phase 1 and 2 Combined – for the Worst Affected Meteorological Year of 2018
Figure 8-10	Nitrogen Deposition from Process Contribution for the Proposed Development during Normal Operations for Phase 1 and 2 Combined – for the Worst Affected Meteorological Year of 2022
Figure 9-1	Surface Water Features and their Attributes
Figure 9-2	Groundwater Features and their Attributes
Figure 9-3	Fluvial Flood Risk
Figure 9-4	Surface Water Flood Risk
Figure 10-1	Artificial Geology
Figure 10-2	Superficial Geology
Figure 10-3	Bedrock Geology
Figure 10-4	BGS Boreholes
Figure 10-5	Faults and Linear Features
Figure 10-6	Waste and Landfills
Figure 10-7	Hazardous Sites
Figure 10-8a	Historical Industrial Land Uses (Polygons)
Figure 10-8b	Historical Industrial Land Uses (Polygons)
Figure 10-8c	Historical Industrial Land Uses (Polygons)
Figure 10-8d	Historical Industrial Land Uses – Railway Features
Figure 10-8e	Historical Industrial Land Uses – Other Features
Figure 10-9	Historical Tanks
Figure 10-10	Ecological Designations
Figure 10-11	Discharge Consents
Figure 10-12	Superficial Aquifers
Figure 10-13	Bedrock Aquifers
Figure 10-14	Groundwater Vulnerability
Figure 10-15	Groundwater Source Protection Zones

Figure 10-16	Groundwater Abstractions
Figure 10-17	Surface Water Abstractions
Figure 10-18a	Natural Ground Subsidence – Collapsible Deposits
Figure 10-18b	Natural Ground Subsidence – Compressible Deposits
Figure 10-18c	Natural Ground Subsidence – Ground Dissolution of Soluble Rocks
Figure 10-18d	Natural Ground Subsidence – Landslides
Figure 10-18e	Natural Ground Subsidence – Running Sand
Figure 10-18f	Natural Ground Subsidence – Shrink / Swell Clays
Figure 10-19	Agricultural Land Classification
Figure 10-20	Brit Pits
Figure 10-21	Non-Coal Mining
Figure 10-22	Surface Ground Workings
Figure 10-23	Underground Workings
Figure 11-1	Noise Sensitive Receptors
Figure 11-2	Construction Noise Contours
Figure 11-3	Operational Noise Contours
Figure 12-1	Statutory Designated Ecological Sites within 15 km of the Proposed Development Site Boundary
Figure 12-2	Non-Statutory Designated Sites within 2 km
Figure 12-3	Potential Habitats of Principal Importance within 2 km
Figure 12-4	Phase 1 Habitat Survey Results
Figure 13-1	Study Areas
Figure 13-2	Survey Areas
Figure 13-3	Net Zero Teesside Breeding Bird Survey Areas
Figure 13-4	Statutory Designated Sites with Ornithological Features
Figure 13-5	Non-Statutory Designated Sites with Ornithological Features
Figure 14-1	Study Area
Figure 14-2	Designated Sites with Marine Ecological Features
Figure 14-3	Teesside Offshore Wind Farm and Net Zero Teesside EUNIS Subtidal Benthic EUNIS Biotope and Sediment Class
Figure 14-4	Important Intertidal and Subtidal Habitats Benthic Habitats

Figure 14-5	Mean percentage of at-sea population of harbour seals from haulouts in the British Isles
Figure 14-6	Mean percentage of at-sea population of grey seals from haulouts in the British Isles
Figure 14-7	Airborne Noise Modelling Locations for Seals
Figure 15-1	Traffic Study Area
Figure 15-2	HGV Routes to and from the Proposed Development Site
Figure 15-3	Traffic Count Locations
Figure 15-4	Traffic Routes
Figure 16-1	Landscape Context
Figure 16-2	Landscape Character
Figure 16-3	Zone of Theoretical Visibility and Potential Viewpoint Locations
Figure 16-4	Topography
Figure 16-5	Zone of Theoretical Visibility and Representative Viewpoint Locations
Figure 16-6-1a	Winter Viewpoint Photography Viewpoint 1: Albion Terrace, Hartlepool
Figure 16-6-1b	Summer Viewpoint Photography Viewpoint 1: Albion Terrace, Hartlepool
Figure 16-6-2a	Winter Viewpoint Photography Viewpoint 2: The Cliff, Seaton Carew
Figure 16-6-2b	Summer Viewpoint Photography Viewpoint 2: The Cliff, Seaton Carew
Figure 16-6-3a	Winter Viewpoint Photography Viewpoint 3: Teesmouth National Nature Reserve, England Coastal Path
Figure 16-6-3b	Summer Viewpoint Photography Viewpoint 3: Teesmouth National Nature Reserve, England Coastal Path
Figure 16-6-4a	Winter Viewpoint Photography Viewpoint 4: North Gare Sands
Figure 16-6-4b	Summer Viewpoint Photography Viewpoint 4: North Gare Sands
Figure 16-6-5a	Winter Viewpoint Photography Viewpoint 5: South Gare Breakwater
Figure 16-6-5b	Summer Viewpoint Photography Viewpoint 5: South Gare Breakwater
Figure 16-6-6a	Winter Viewpoint Photography Viewpoint 6: Cowpen Bewley Country Park
Figure 16-6-6b	Summer Viewpoint Photography Viewpoint 6: Cowpen Bewley Country Park
Figure 16-6-7a	Winter Viewpoint Photography Viewpoint 7: England Coast Path, Warrenby
Figure 16-6-7b	Summer Viewpoint Photography Viewpoint 7: England Coast Path, Warrenby

Figure 16-6-8a	Winter Viewpoint Photography Viewpoint 8: Redcar seafront
Figure 16-6-8b	Summer Viewpoint Photography Viewpoint 8: Redcar seafront
Figure 16-6-9a	Winter Viewpoint Photography Viewpoint 9: Coatham Marsh Nature Reserve
Figure 16-6-9b	Summer Viewpoint Photography Viewpoint 9: Coatham Marsh Nature Reserve
Figure 16-6-10a	Winter Viewpoint Photography Viewpoint 10: Eston Nab
Figure 16-6-10b	Summer Viewpoint Photography Viewpoint 10: Eston Nab
Figure 16-6-11a	Winter Viewpoint Photography Viewpoint 11: Longbeck Lane
Figure 16-6-11b	Summer Viewpoint Photography Viewpoint 11: Longbeck Lane
Figure 16-6-12a	Winter Viewpoint Photography Viewpoint 12: Carpark off A1085 Coast Road, Marske by the Sea
Figure 16-6-12b	Summer Viewpoint Photography Viewpoint 12: Carpark off A1085 Coast Road, Marske by the Sea
Figure 16-6-13a	Winter Viewpoint Photography Viewpoint 13: Saltholme Wildlife Reserve and Discovery Park
Figure 16-6-13b	Summer Viewpoint Photography Viewpoint 13: Saltholme Wildlife Reserve and Discovery Park
Figure 16-6-14a	Winter Viewpoint Photography Viewpoint 14: Saltholme Wildlife Reserve and Discovery Park
Figure 16-6-14b	Summer Viewpoint Photography Viewpoint 14: Saltholme Wildlife Reserve and Discovery Park
Figure 16-6-15a	Winter Viewpoint Photography Viewpoint 15: Cowpen Lane
Figure 17-1	Location of Designated Heritage Assets
Figure 17-2	Location of Non-Designated Heritage Assets
Figure 17-3	Location of Cultural Heritage Events
Figure 17-4	Historic Landscape Character
Figure 18-1	Direct Impact Area and Wider Impact Areas
Figure 20-1	Major Accidents and Disasters Receptors Study Area
Figure 21-1	Historic and Authorised Landfills and Waste and Mineral Sites

Figure 23-1	Zones of Influence for Cumulative Effects Assessment
Figure 23-2	Long List of Other Developments
Figure 23-2	Short List of Other Developments