



Transboundary screening undertaken by the Planning Inspectorate (the Inspectorate) on behalf of the Secretary of State (SoS) for the purposes of Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations)	
Project name:	Immingham Green Energy Terminal
Address/Location:	The Proposed Development is in North-East Lincolnshire on the south bank of the Humber Estuary, to the east of the existing Port of Immingham (centred on National Grid Reference E520783 N415271).
Planning Inspectorate Ref:	TR030008
Date(s) screening undertaken:	First screening – 2 March 2023 following the Applicant’s request for a scoping opinion
EEA States notified/consulted:	Denmark and Iceland

FIRST TRANSBOUNDARY SCREENING	
Document(s) used for transboundary Screening:	Immingham Green Energy Terminal EIA Scoping Report ('the Scoping Report') 26 August 2022
Screening Criteria:	The Inspectorate’s Comments:
Characteristics of the Development	<p>A description of the development is provided in section 2.4 of the Scoping Report.</p> <p>The Proposed Development would occupy an area of approximately 102.52 hectares (ha) and comprise a new jetty and topside infrastructure including a liquid bulk import terminal and associated processing facility, to deliver 'green hydrogen' production. Imported ammonia would be stored and processed at the site to create green hydrogen, for onward transport throughout the UK.</p> <p>Figure 2.1 in Appendix A of the Scoping Report shows how the Proposed Development would be split into several areas: Jetty; East Site; West Site; pipeline; and temporary construction areas.</p> <p>The land which may be required for the Proposed Development is illustrated on Figure 2.2 in Appendix A.</p> <p>Operation The Proposed Development is initially intended to provide a green hydrogen production facility from the new jetty, receiving</p>

imports of green ammonia from Saudi Arabia, to be converted to green hydrogen to supply the UK's hydrogen for mobility (H2 fM) market.

The Proposed Development is intended to handle a range of liquid bulk products including ammonia and possibly liquified CO₂ from carbon capture and storage projects in future.

The Scoping Report states that the design of the jetty and topside infrastructure has not yet been finalised.

The Scoping Report anticipates that an open piled approach trestle extended from the river frontage in a northerly direction leading to the new jetty structures, which with an overall length of approximately 1.1km. The jetty would be located to the east of the existing Immingham Oil Terminal jetty including topside infrastructure for handling bulk shipments of anhydrous ammonia. The Scoping Report anticipates that a small capital dredge would be required to ensure accessibility and safe mooring for vessels at all states of the tide, with a dredge depth of approximately 15.5m below Chart Datum (to be confirmed through the design process).

Landside infrastructure (associated development) is described in the Scoping Report as likely to comprise pipework and pipelines required to link the jetty and unit operations and includes a control building, an ammonia storage tank, hydrogen production units and horizontal liquid hydrogen storage vessels, with road tanker loading bays for both liquid and gaseous hydrogen for onward distribution.

Two pipeline corridors are proposed within the Pipeline area. An ammonia (NH₃) pipeline would be required from the jetty to the East Site to deliver refrigerated liquid ammonia to the storage tank. A hydrogen pipeline from the East Site would connect the ammonia converter(s) to the West Site. A nitrogen pipeline would also be required within this corridor to supply nitrogen from the generator on the West Site to be used on the East Site.

The East Site would comprise an ammonia storage tank and converters for production of hydrogen from ammonia, linked to the jetty through a pipeline.

A plan illustrating indicative site components of the East Site is shown in Figure 2.4 in Appendix A

The West Site would comprise converters and hydrogen liquefiers to facilitate the temporary storage of the hydrogen for road transport. The West Site would also accommodate tanker loading bays, administrative offices and other supporting facilities.

	<p>The West Site would include a 33kV grid power connection and access is proposed via two entrances, one from Kings Road and the other from the A1173.</p> <p>Construction</p> <p>The Scoping Report notes that the exact methodology for the construction phase for both the marine and landside works is still being developed. However, the Scoping Report anticipates that the marine works will involve vibro and percussive piling techniques and that the deck for the approach trestle and jetty would be supported by either steel or pre-stressed concrete beams with an in-situ concrete deck.</p> <p>The design of the jetty topsides is not yet finalised but the Scoping Report states that the jetty topside’s piping, mechanical equipment, electrical and control systems would be fabricated off-site and installed on the jetty head via a jack up barge.</p> <p>In the marine environment the structures would rest upon an open piled network of steel tubular piles.</p> <p>The capital dredging methodology is still under consideration; the Scoping Report anticipates that some material would be removed via a backhoe and/or by trailer suction hopper dredger where possible.</p> <p>For landside works, the Scoping Report expects that the existing area would be cleared for pipeline installation parking and storage. Horizontal Directional Drilling (HDD) or open trench techniques would be used. The Scoping Report envisages that HDD would be used for the necessary pipeline crossings over the railway line and roads.</p> <p>The Scoping Report states that there will be a phased approach to the construction of the Proposed Development, with the construction expected to start in first phase in autumn (third quarter) of 2024, with completion of all construction phases in 2034. Table 2.1 sets out the anticipated components within each area over this period.</p>
<p>Location of Development (including existing use) and Geographical area</p>	<p>The Proposed Development is located within North-East Lincolnshire, on the south bank of the Humber Estuary, to the east of the Port of Immingham (the Port). Its terrestrial areas lie within the administrative boundary of North East Lincolnshire Council (NELC) and the marine elements lie on the bed of the Humber Estuary.</p> <p>A plan of the existing Port is shown in Plate 1-1 in Chapter 1 of the Scoping Report.</p> <p>The Port lies immediately adjacent to the main deep-water shipping channel which serves the Humber Estuary, within the East Inshore Marine Plan Area of the Humber Estuary. The ports within this area rely heavily on the trade with Europe. The Port</p>

	<p>of Immingham has freight capabilities which regularly service Northern Europe, Scandinavia, and the Baltic.</p> <p>The area surrounding the Port is mainly industrial with the nearest major residential area is the town of Immingham, approximately 1.5km from the western edge of the West Site and the conurbations of Grimsby to the south-east and Hull to the north-west.</p> <p>Other than the Port of Immingham, no additional major developments have been identified by the Applicant close to the Proposed Development site.</p> <p>The Applicant has not identified within the Scoping Report the nearest EEA state to the Proposed Development. No information is provided in the Scoping Report about any areas which could be affected which are under the jurisdiction of an EEA State.</p>
<p>Environmental Importance</p>	<p>The Proposed Development's onshore elements are not considered by the Scoping Report to be of environmental importance except at a localised level.</p> <p>The Scoping Report highlights that the Proposed Development's boundary overlaps with the Humber Estuary SAC, SPA and Ramsar Site. The area surrounding the Port is within proximity of the boundaries of the Humber Estuary Special Area of Conservation (SAC), Special Protection Area (SPA) and Ramsar Site, which collectively form the Humber European Marine Site (EMS). The Inspectorate notes that the Greater Wash SPA is also approximately 20 km to the east of the Proposed Development.</p> <p>The sites are designated for the following features:</p> <p>Humber Estuary SAC:</p> <ul style="list-style-type: none"> • estuarine habitats including sandbanks, mudflats and sandflats; • sea and river lamprey; and • grey seal. <p>Humber Estuary SPA:</p> <ul style="list-style-type: none"> • internationally important populations of breeding and non-breeding bird species, including migratory species associated with EEA states; and • internationally important water bird assemblages in any season. <p>Humber Estuary Ramsar site:</p> <ul style="list-style-type: none"> • estuarine habitats including dune systems, and humid dune slacks, intertidal mudflats and sandflats, salt marshes and coastal lagoons; • breeding colony of grey seal; • breeding site for natterjack toad; • internationally important populations of various bird species in the non-breeding (wintering) season: Shelduck; Golden plover; Red knot; Dunlin; Black-tailed godwit; Bar-tailed godwit; and Common redshank;

- internationally important waterfowl assemblage; and
- importance as a migration route for river lamprey and sea lamprey between coastal waters and their spawning areas.

Humber Estuary SSSI:

- estuarine habitats, including intertidal mudflats, sandflats and saltmarsh;
- geological and geomorphological interest;
- wintering and passage wildfowl and waders and breeding bird populations;
- breeding grey seals;
- river lamprey and sea lamprey; and
- vascular plant and invertebrate assemblages.

Greater Wash SPA:

- Red-throated diver;
- Little gull;
- Common scoter;
- Sandwich tern;
- Little tern; and
- Common tern.

The Scoping Report identifies (Section 8.2) records of legally protected species within the Humber Estuary including the tentacled lagoon worm, the lagoon sand shrimp, twaite shad, allis shad, Cetacean (whale and dolphin) species, common seal and grey seal, sea lamprey and river lamprey, twaite shad and allis shad, and Atlantic salmon.

The Scoping Report also states in Section 8.2 that the Humber Estuary is a nursery ground for a variety of commercially important species including cod, herring, plaice, sole and whiting, as well as a spawning ground for sole.

The Humber Estuary also provides a migration route for diadromous species such as salmonids, shads, lampreys and eel.

Navigation

The Scoping Report notes that both commercial and recreational navigation occurs in the Humber Estuary.

The Humber Estuary is stated to be one of the busiest waterways in the UK, with approximately 40,000 ship movements per year.

Two principal routes are available to vessels. The Sunk Dredged Channel is used by deep draught vessels. A route using the centre of the estuary between the anchorage areas of Hawke, Haile and Bull along the Bull Channel is available to shallower draught vessels.

Access to the Humber Estuary is via one main channel approach which passes close to Spurn Head.

The Humber Estuary according to the Scoping Report has approximately 1,000 permanent berths for recreational craft,

	<p>which are used predominantly on a weekend during summer months. There are also around 120 visitor's berths.</p>
<p>Potential impacts and Carrier</p>	<p>The Scoping Report identifies potential impacts on ecological receptors from:</p> <ul style="list-style-type: none"> • Changes to water quality as a result of increases in suspended sediment concentration (SSC), potential sedimentation during piling, and capital and maintenance dredging which could affect benthic habitats/species and fish populations. • Direct loss of intertidal and subtidal habitat which could affect benthic habitat/species, fish populations and coastal waterbirds. • Underwater noise and vibration disturbance during construction which could affect benthic habitat/species, fish populations and marine mammals. • Airborne noise and vibration during construction which could affect coastal waterbirds. • Direct changes to benthic habitats and species due to sediment removal during operation which could affect benthic habitats/species. • Introduction and spread of invasive non-native species which could affect benthic habitats/species. • Collision risk which could affect marine mammals. <p>The Scoping Report identifies the following potential impacts on other receptors:</p> <p><i>Offshore</i></p> <ul style="list-style-type: none"> • Increased risk of vessel collisions with port infrastructure and other vessels. • Increased risk of a vessel breaking its moorings and leaving the berth. <p><i>Onshore</i></p> <ul style="list-style-type: none"> • Changes to flood risk. • Contamination from suspended solids or other chemical contaminants during construction and decommissioning. • The effects of diffuse urban pollutants in surface water runoff during construction and decommissioning. • The risk of pollution from chemical spillages or fire on the site during construction and decommissioning. <p>It is considered that transboundary impacts are not likely to arise from these elements of the Proposed Development and therefore, onshore elements are not discussed further in this transboundary screening.</p>
<p>Extent</p>	<p>The Scoping Report does not identify any impacts that are likely to lead to significant effects on the environment in EEA States. The Scoping Report states that, given the nature of the Proposed Development and its location, significant transboundary effects are considered unlikely.</p>

	<p>However, the Inspectorate notes that the features of the Humber Estuary SPA, as cited in the Scoping Report, include the following species associated with populations in EEA states:</p> <ul style="list-style-type: none"> • Red knot comprising 6.3% of the Northeastern Canada/Greenland/Iceland/North western Europe populations. • Black-tailed godwit comprising 2.6 - 3.2% of the Icelandic breeding population. <p>The qualifying features of the Humber Estuary Ramsar site include the following species associated with populations in EEA states:</p> <ul style="list-style-type: none"> • Golden plover representing 2.2% of the Iceland and Faroes/East Atlantic population; • Black-tailed godwit comprising 3.2% of the Iceland/West Europe populations.
Magnitude	<p>The Scoping Report does not identify any impacts that are likely to lead to significant effects on the environment in EEA States. The magnitude of potential transboundary impacts has therefore not been identified. Likely significant transboundary effects will be assessed within the Environmental Statement.</p>
Probability	<p>The Scoping Report does not include information on these points; further assessments are being undertaken as part of the environmental impact assessment and the information will be provided in the ES.</p>
Duration	
Frequency	
Reversibility	
Cumulative impacts	<p>The Applicant's cumulative impact assessment (CIA) has not yet been undertaken and the Applicant has not identified any likely significant cumulative effects at this stage.</p> <p>The Scoping Report states that potential cumulative effects on marine transport and navigation could arise as a result of other coastal and marine developments in the area, as well as ongoing activities, including maintenance dredging and disposal activities. The Scoping Report states that these would be considered as part of the cumulative and in-combination assessment to be presented within the ES.</p> <p>Paragraph 24.2.10 of the Scoping Report states that the Applicant will collect further information relating to other developments to determine which other developments in the zone of influence should be considered within the cumulative assessment.</p>
<p><u>Transboundary screening undertaken by the Inspectorate on behalf of the SoS</u></p> <p>Under Regulation 32 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 2017 EIA Regulations) and on the basis of the current information</p>	

available from the Applicant, the Inspectorate is of the view that the Proposed Development **is likely** to have a significant effect on the environment in an EEA State.

In reaching this view the Inspectorate has applied the precautionary approach (as explained in its Advice Note Twelve: Transboundary Impacts) and taken into account the information currently supplied by the Applicant.

Action:

Action: Transboundary issues notification under Regulation 32 of the 2017 EIA Regulations is required.

States to be notified: Denmark and Iceland. The reasons for notification relate to potential impacts on bird populations of conservation importance.

Date: 2 March 2023

Note: The SoS' duty under Regulation 32 of the 2017 EIA Regulations continues throughout the application process.

Note:

The Inspectorate's screening of transboundary issues is based on the relevant considerations specified in the Annex to its Advice Note Twelve, available on our website at <http://infrastructure.planninginspectorate.gov.uk/legislation-and-advice/advice-notes/>