Immingham Green Energy Terminal

9.3 Applicant's Responses to the Examining Authority's First Written Questions

(Responses to "Q1.7. Landscape and Visual Effect")

Infrastructure Planning (Examination Procedure) Rules 2010

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Chapter **Pages**

1 Introduction

Overview

1.1 This document has been prepared to accompany an application made to the Secretary of State for Transport (the "Application") under section 37 of the Planning Act 2008 ("PA 2008") for a development consent order ("DCO") to authorise the construction and operation of the proposed Immingham Green Energy Terminal ("the Project").

1.2 The Application is submitted by Associated British Ports ("the Applicant"). The Applicant was established in 1981 following the privatisation of the British Transport Docks Board. **The Funding Statement [APP-010]** provides further information.

1.3 The Project as proposed by the Applicant falls within the definition of a Nationally Significant Infrastructure Project ("NSIP") as set out in Sections 14(1)(j), 24(2) and 24(3)(c) of the PA 2008.

The Project

1.4 The Applicant is seeking to construct, operate and maintain the Immingham Green Energy Terminal, comprising a new multi-user liquid bulk green energy terminal located on the eastern side of the Port of Immingham (the "Port").

1.5 The Project includes the construction and operation of a green hydrogen production facility, which would be delivered and operated by Air Products (BR) Limited ("Air Products"). Air Products will be the first customer of the new terminal, whereby green ammonia will be imported via the jetty and converted on-site into green hydrogen, making a positive contribution to the UK's net zero agenda by helping to decarbonise the United Kingdom's (UK) industrial activities and in particular the heavy transport sector.

1.6 A detailed description of the Project is included in **Chapter 2: The Project** of the Environmental Statement ("ES") **[APP-044]**.

Purpose and Structure of this Document

1.7 This document contains the Applicant's responses to those of the Examining Authority's Written Questions 1 **[PD-008]** grouped under the theme "Q1.7. Landscape and Visual Effect". It represents one of a collection of eighteen such documents, each of which addresses a different theme.

1.8 Responses are ordered ascendingly by reference number, replicating the structure of the Examining Authority's Written Questions 1.

1.9 Responses are provided in a table. The text of the question appears on the lefthand side, with the Applicant's answer to its right.

1.10 Further materials pertinent to the Applicant's response are included at the end of the document as appendices where necessary.

2 Applicant's Responses to the Examining Authority's First Round of Written Questions

Q1.7. Landscape and Visual Effect	
Q1.7.1 Clarification	
Q1.7.1.1	
Question	**Response**
View Directions The ES [APP-014] provides illustrative sections and elevations. The directions provided for these views are cardinal although it appears more likely, from the illustrations provided, that these will be intercardinal directions. For accuracy, update the directions or illustrations.	The elevations shown on **Pages 8, 9 and 10** of the **Illustrative Sections and Elevations [APP-014]** have been updated and are submitted at Deadline 1 **[TR030008/APP/4.4 (2)]** to show the direction of views in the context plan located in the top right of the drawing. A north point has also been added to the drawings to aid understanding and assist in orientation.
Q1.7.1.2	
Question	**Response**
Views Do Not Correlate The ES [APP-115, 13.8.6] shows Viewpoint 4 in summer. This is not taken from the same location as Viewpoint 4 in winter [APP-115, 13.9.6]. The winter viewpoint location is the one chosen for the photomontage [App-117] whereas it is considered that the summer viewpoint provided will more accurately show the extent of the Proposed Development in this area. Update the photomontage in relation to the summer viewpoint.	It is acknowledged that the winter viewpoint (**Environmental Statement ("ES") Figure 13.9.6: Viewpoint 4b Queens Road [APP-116]**) is located at E520165, N414737 and the summer viewpoint (**ES Figure 13.8.6: Viewpoint 4b Queens Road [APP-115]**) at E520221, N414734. These are located approximately 50m apart. The winter viewpoint was selected for the photomontage (refer to **ES Figure 13.10.4 [APP-117]**) as this shows the Project in context with the residential properties on Queens Road.

	Additional winter photographs were taken in February 2024 at the summer viewpoint location and an additional photomontage will be provided at Deadline 3 (3 May 2024) to show the extent of the Project from Queens Road.
Q1.7.2 Assessment	
Q1.7.2.4	
Question	**Response**
Additional photomontages The ES concludes [APP-055, Paragraph 13.8.16] that Viewpoints 2, 3 and 11 are likely to result in a significant landscape and visual impact. Photomontages have been provided for Viewpoints 2, 4 and 6. a) Applicant – In order to consider the potentially most significant residual effects, provide photomontages for Viewpoints 3 and 11. b) NELC – Indicate whether there are any additional views that you consider require photomontages.	It is acknowledged that photomontages have not been produced for Viewpoint 3 and Viewpoint 11, which have both been assessed as likely to experience significant visual effects. Photomontages were not produced for Viewpoint 11 as, whilst significant effects are assessed as likely during the construction phase for residential receptors located on Queens Road, Viewpoint 11 was not assessed in the operational phase as the ten residential properties are proposed to be acquired to facilitate the Project as outlined in **Paragraph 13.8.14** of **Environmental Statement Chapter 13: Landscape and Visual Impact [APP-055]**. Additional photography was taken in February 2024 and using this photography an additional photomontage will prepared to represent views and extent of the Project in the context of Kings Road and submitted at Deadline 3 (3 May 2024). The location and orientation of the viewpoint has been amended slightly to better represent the extent of the Project as the original orientation was directed at a small building at the edge of the site which obscured the wider context. Viewpoint 3 was assessed as likely to result in significant effects during the construction and operation of the Project; however, the direction of view taken from the viewpoint photography represents views to the south, towards the proposed Temporary Construction Area off Laporte Road

	(Work No. 9). Updated photographs were taken in February 2024 for Viewpoint 3 to represent views to the south-west, towards the Project, from the Public Right of Way (Bridleway 36). A photomontage will be submitted at Deadline 3 (3 May 2024) to show the extent of the Project using the updated photography.
Q1.7.3 Appearance and Mitigation	
Q1.7.3.1	
Question	**Response**
Appearance of the Proposed Development The final scale, massing and materials of the Proposed Development have been left to a later detailed design stage, outlined in [APP-233]. In addition to the Questions in the Design section: a) Describe what is preventing you from providing more indicative visualisations at this stage on the potential appearance of the Proposed Development and how this would impact on the Landscape and Visual assessments made. b) Indicate how the in principle the final appearance of the Proposed Development could be secured within the dDCO.	a) Three photomontages have been provided at Viewpoint 2, Viewpoint 4b, and Viewpoint 6 (refer to **Environmental Statement ("ES") Figure 13.10.1 – 13.10.6 [APP-117]**). The photomontages are illustrative of close-range views of the Project from Queens Road (VP04b), medium range views from recreational users of the England Coast Path (VP02), and medium range views from residential receptors on the edge of Immingham (VP06). Two additional photomontages at Viewpoint 3 and Viewpoint 11, and an updated photomontage for Viewpoint 4b will be provided for Deadline 3 (3 May 2024) using a detailed 3D model of the Project. These photomontages will not alter the basis or conclusions of the landscape and visual assessment set out in **ES Chapter 13: Landscape & Visual Impact [APP-055]**. They will provide the Panel and other interested parties with an understanding of how the changes introduced by the Project will affect views at these particular viewpoints. The Landscape and Visual Impact Assessment ("LVIA") has been undertaken in accordance with the Planning Inspectorate Advice Note Nine: Using the Rochdale Envelope as described within **Paragraphs 13.4.5** and **13.4.6** of **ES Chapter 13: Landscape & Visual Impact [APP-**

	055], to allow for a degree of flexibility in the dimensions and configurations of buildings and structures. The assessment of impacts on landscape and visual amenity was undertaken with consideration of a number of factors including the maximum geographical extent and heights of the permanent elements as set out within **Paragraphs 2.4.12** to **2.4.16** (Parameters) within **ES Chapter 2: The Project [APP-044]**. The assessment allows for flexibility in the final appearance of the Project, and variations in the final details of the materials and finishes would not change the assessment conclusions as described in **ES Chapter 13: Landscape & Visual Impact [APP-055]**. As explained in the response to Q1.4.1.2, the opportunities to influence the finish and materials of process buildings and structures are limited. Indicative colours for finishes are outlined in **Section 2.4** within **ES Chapter 2: The Project [APP-044]** and are similar to the colours and materials of existing structures and buildings within proximity to the Project. The opportunity has been identified however for the local planning authority to approve the external paint finish of the ammonia storage tank and the materials of key non-process buildings (see part b) below). The assessment of the visual effects is described within **Table 13-9: Viewpoint Assessment** within **ES Chapter 13: Landscape & Visual Impact [APP-055]**. Photographs and visualisations have an important role to play in communicating information about the landscape and visual effects of the Project, although it is acknowledged that they cannot convey exactly the way effects would appear on site as set out in paragraph 8.15 of Guidelines for Landscape and Visual Impact Assessment (Third Edition). As explained above, the landscape and visual assessment is based on the parameters set out within **ES Chapter 2: The Project [APP-044]**, and therefore comprises an assessment of reasonable worst case.

	Representative viewpoints were agreed with the consultation bodies, and photomontages were prepared from locations from which likely significant visual effects were identified. These have allowed the significant visual effects to be illustrated at a range of representative locations covering different types of visual receptors. b) Approval of materials for key buildings and the paint finish of the ammonia storage tank will be secured by Requirement 4 (Detailed Design) in Schedule 2 (Requirements) of the **draft Development Consent Order [PDA-004]**. Reference should also be made to the response to Q1.4.2.1 and Q1.4.3.1 which provides further information on those detailed design approvals.

Q1.7.3.2

Question	Response
Appearance of Construction Compounds Application material [APP-055] [APP-233] does not provide information on the likely scale, massing, materials or longevity of construction compounds although these have the potential to impact on views for as long as they exist and should be included in the assessment. Provide indicative information on the likely appearance of the construction compounds and a tabulated assessment of the potential impact.	The construction phase, including an overview of the construction compounds is described within **Section 2.5 Construction Activities within Chapter 2: The Project [APP-044]** of the **ES** and includes details of the likely scale, massing and longevity of the construction compounds. Updated drawings for the two compounds which comprise Work Nos. 8 and 9 and additional details on heights and areas of the construction compounds are provided in response to Q1.4.2.4. Measures to be employed during the construction of the Project to control and minimise impacts on the environment are described within the **Outline Construction Environmental Management Plan [APP-221]**. **Table 10** provides measures relating to landscape and visual impact. The visual effects during construction are described for Viewpoint 1 to Viewpoint 11 inclusive within **Table 13-9: Viewpoint Assessment in Chapter 13: Landscape and Visual Impact [APP-055]**. This includes the longevity of the construction activity associated with the relevant phase of development visible at each viewpoint and a description of the construction operations likely to be visible within the view. An updated tabulated assessment for each viewpoint (VP), specifically in relation to the two construction compounds which comprise Work Nos. 8 and 9 is provided below:

VP	TCA Queens Road (Work No 8)	TCA Laporte Road (Work No. 9)

	1	No intervisibility as a result of intervening structures and vegetation.	Limited visibility as a result of the long distance view. The construction compound would form a minor addition of structures that are seen as part of a wider panoramic view containing a high number of industrial structures.
	2	No intervisibility as a result of intervening screening vegetation.	Close proximity views of construction fencing/ hoarding including parking and laydown areas, to the west of the view. Views of construction storage areas would be prominent in the view. Views of construction operations further to the west would be screened by the compound.
	3	No intervisibility as a result of intervening screening vegetation.	Close proximity view of the construction compound fencing/ hoarding including parking and laydown areas. Views of construction storage areas would be prominent in the view.
	4	Visibility would be restricted by intervening structures and vegetation. There is the potential of visibility of tall machinery above the level of screening vegetation, although at a distance and	Visibility would be restricted by intervening structures and vegetation. There is the potential of visibility of tall machinery above the level of screening vegetation, although at a distance and in

		in context of existing tall structures in the view.	context of existing tall structures in the view.
	5	No intervisibility as a result of intervening structures.	No intervisibility as a result of intervening structures.
	6	No intervisibility as a result of intervening structures.	No intervisibility as a result of intervening structures.
	7	No intervisibility as a result of intervening structures and vegetation.	No intervisibility as a result of intervening structures and vegetation.
	8	No intervisibility as a result of intervening structures and vegetation.	No intervisibility as a result of intervening structures and vegetation.
	9	No intervisibility as a result of intervening structures and vegetation.	No intervisibility as a result of intervening structures and vegetation.
	10	No intervisibility as a result of intervening structures and vegetation.	No intervisibility as a result of intervening structures and vegetation.
	11	No intervisibility as a result of intervening structures.	No intervisibility as a result of intervening structures.
Q1.7.3.3			
Question		**Response**	

Proposed Mitigation Measures The ES [APP-055, Section 13.9] states that the opportunity for mitigation is limited due to the scale of the project and that the finishes of the structures and sizes of component parts will not be finalised until after the detailed design stage, should the Proposed Development be granted Development Consent. a) Indicate what mitigation measures have been considered and how these might be implemented to assist in the reduction of impact. b) Indicate the likely finishes that might be considered and why these would be chosen to mitigate the impact of the Proposed Development. c) Indicate how these measures would be secured within the dDCO.	a) The standard and embedded mitigation measures are described within **Section 13.7: Development Design and Impact Avoidance** and outlined in **Table 13-5: Mitigation Measures** within **Environmental Statement ("ES") Chapter 13: Landscape & Visual Impact [APP-055]**. The use of screen planting as mitigation has been considered and, as outlined in **Paragraph 13.9.2** within **ES Chapter 13: Landscape & Visual Impact [APP-055]**: "*the addition of landscape features such as trees and woodland would not be effective in reducing these effects on visual amenity.*" Opportunities have been taken however, to integrate the Project into the landscape as far as possible. **Paragraph 13.8.12** of **ES Chapter 13: Landscape & Visual Impact [APP-055]**, concludes that: *"Given the scale and nature of the Project, there is limited potential for mitigation measures to further reduce operational phase effects, however, where possible and within the constraints of the Project, landscape elements are proposed which would assist in integrating the Project into the receiving landscape. Further detail is included within the Outline LEMP* **[APP-225]**. *The Outline LEMP defines the opportunities which are available within the operational site boundaries to provide a strategy for landscape and biodiversity enhancement."* The materials for certain buildings and the external paint finish of the ammonia storage tank will, amongst other things, be approved by the local planning authority pursuant to requirements within the draft DCO and are considered further in the responses to Q1.4.1.2, Q1.4.2.5 and Q1.4.3.1. b)

	The assessment allows for flexibility in the final appearance of the Project, as variations in the final details of the materials and finishes would not change the assessment conclusions. As explained in the response to Q1.4.1.2, the opportunities to influence the finish and materials of process buildings and structures are limited (indicative colours for the Terminal, jetty access road and the main buildings and structures on the East Site and West Site are outlined within **Tables 2-3**, **2-5**, **2-6** and **2-8** in **ES Chapter 2: The Project [APP-044])**. . The opportunity has been identified however for the local planning authority to approve the external paint finish of the ammonia storage tank and the materials of key non-process buildings under Requirement 4 of the draft DCO **[PDA-004]** to ensure that these elements integrate with their surroundings, to the extent possible. Possible options for the ammonia storage tank may include a neutral or recessive colour as used on several local refinery tanks or a graduated colour scheme, as shown in the Applicant's response to Q1.4.2.5. The use of neutral or recessive colours would enable the ammonia tank to be integrated with, rather than stand out from the local landscape, thereby minimising its visual impact. The use of colours to minimise visual effects is recognised in paragraph 5.11.17 of the NPSfP which states that *"Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of proposed project."* Further information is contained in the responses to Q1.4.2.5 and Q1.4.3.1.

	c) The detailed measures and a plan for securing the establishment and maintenance of proposed landscape and ecological works associated with the landside elements of the Project will be prepared in accordance with the principles described in the **Outline LEMP [APP-225]** and would be secured under Requirement 10 of the **draft Development Consent Order [PDA-004]**. Approval of materials for key buildings and the paint finish of the ammonia storage tank will be secured by Requirement 4 (Detailed Design) in Schedule 2 (Requirements) of the **draft Development Consent Order [PDA-004]**.

Q1.7.4 Decommissioning	
Q1.7.4.1	
Question	**Response**
Decommissioning of Landside elements The ES states that the land subject to the removal of Hydrogen Production elements of the Proposed Development would be restored to a satisfactory state [APP-044, Paragraph 2.7.4] [APP-223, Paragraph 2.1.4]. Provide additional information regarding the state of the land proposed to be reinstated, and how the retained (buried) infrastructure would be made safe.	As set out in **Paragraph 1.1.2** of the **Outline Decommissioning Environmental Management Plan [APP-222]**, land will be restored to a satisfactory state as a requirement of the Environmental Permit. The application for the Environmental Permit for the hydrogen production facility will include a site condition report. This will define the baseline of the land to be reinstated following decommissioning. The site condition is established through review of historical records, as well as the initial ground investigation works that have been undertaken, and will be based on the ground conditions outlined in **Environmental Statement ("ES") Appendix 21.B: Phase II Ground Investigation Interpretative Report [APP-216]** and summarised in **ES Chapter 21: Ground Conditions and Land Quality [APP-063]** (which describes the state of the relevant land at this point in time). As a requirement of a condition of the Environmental Permit, the site condition report will be updated as necessary throughout the life of the facility (for example following any remediation carried out during the construction phase) until the Environmental Permit is surrendered. To comply with the conditions of the Environmental Permit, an outline site closure plan will be prepared. Following decommissioning, the Environmental Permit will need to be surrendered; to do this, the operator (Air Products) will need to demonstrate to the regulator through implementation of the site closure plan that the land has been returned 'to satisfactory state' by reference to the baseline as agreed with the

	Environment Agency as described above (see Environment Permit Regulations surrender guidance[1]). Once the hydrogen production facility is decommissioned and made safe by implementing the site closure plan (which will include connecting and capping off all the utilities such as electricity, water and gas connections), the only items that will remain in place are underground structures such as foundations and piles. These will be made safe and will remain in place as they are typically used for future developments, present no significant environmental hazard and removing them would generate unnecessary waste. In terms of other potential buried services infrastructure, the hydrogen production facility would not include any below ground tanks or on-site landfill. The only significant below ground structure proposed is an effluent settling basin that will be used for the final treatment of storm water prior to that water draining off site under gravity. There are a number of oil/water separators in the water system in below ground vaults which will be cleaned, and access blocked. There will not be any storage vessels, plant or equipment containing process effluent or raw material located below ground, aside from the hydrogen and refrigerated ammonia pipelines. Those hydrogen and ammonia pipelines will be purged (to remove any chemical residues) and capped off. They may be reused. The other underground services are limited to pipework used for low hazard material such as cooling water that contains trace water treatment chemicals only, so no chemical residues require removal, and they will be flushed through and made safe, e.g. by blocking access.

	References: [1] Environment Agency (2023). Change, transfer or cancel your environmental permit.[Online] https://www.gov.uk/guidance/change-transfer-or-cancel-your-environmental-permit (accessed March 2024).