



# Immingham Green Energy Terminal

TR030008

9.31 Written Summaries of the Applicant's Oral  
Case at Issue Specific Hearing 3

March 2024

# Immingham Green Energy Terminal

## ISH 3 Summary

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### 1 **ABOUT THIS DOCUMENT**

#### 1.1 **Introduction**

1.1.1 This document summarises the case put by Associated British Ports (the Applicant), at the Issue Specific Hearing 3 on 22 February 2024 for the Immingham Green Energy Terminal project (referred to as the project).

1.1.2 The hearing opened at 10:00 on 22 February 2024 and closed at 16:47 on 22 February 2024. The agenda for the hearing [\[EV4-001\]](#) was published on the Planning Inspectorate's website on 9 February 2024.

1.1.3 In what follows, the Applicant's submissions on the points raised broadly follow the items set out in the Examining Authority's agenda.

#### 1.2 **Attendees on behalf of the Applicant**

1.2.1 Hereward Phillpot KC, Counsel instructed jointly by Bryan Cave Leighton Paisner LLP (BCLP) and Charles Russell Speechlys (CRS), appeared on behalf of Associated British Ports, the Applicant.

### 2 **APPLICANT'S SUMMARY OF CASE ON ITEM 3: FLOOD RISK AND COASTAL CHANGE**

#### 2.1 **Item 3 (Flood Risk and Coastal Change)**

Table 3.1 – Item 3 (Flood Risk and Coastal Change)

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Issue Discussed	Summary Of Oral Case
<p>Explain the design life of the proposed development in relation to both the landside and marine elements</p>	<p>In relation to the landside elements of the proposed development, the Applicant submitted the following (which is also covered in greater detail in section <b>Error! Reference source not found.</b> below)::</p> <ul style="list-style-type: none"> <li>• It is not proposed that any sections of the hydrogen production facility would be automatically decommissioned after 25 years of operation. In line with similar process or chemical facilities, this timescale reflects the minimal technical “design life” of the equipment and components within the hydrogen production facility.</li> <li>• At the end of this “design life” it is likely that items of equipment, pipe, or other sections of the facility may need refurbishing or replacing and is therefore at the end of its “design life”.</li> <li>• Throughout the operating life of the facility as part of the maintenance and mechanical integrity programme, a technical and economic evaluation will be carried out of the components of the facility which may lead to repairs, overhauls or replacements.</li> <li>• Through the ongoing process of improvements, the overall facility operation may be extended beyond the technical design life of 25 years, as is acknowledged in Chapter 2, paragraph 2.7.2 of the ES [APP-044].</li> <li>• If there are the necessary spare replacement parts available, it is still safe, and there are favourable economic conditions (all of which Air Products considers likely), then all or parts of the facility will continue to operate beyond 25 years.</li> </ul> <p>In relation to the marine elements of the proposed development, the Applicant submitted the following:</p> <ul style="list-style-type: none"> <li>• Taking into account the Applicant’s design and as is typical of marine infrastructure, the jetty structure design life is estimated to be 50 years, beyond that the jetty would need maintenance work and overhaul to remain in operation.</li> </ul> <p>The Applicant took away a post hearing action to provide a note at Deadline 1 which would cover decommissioning, design life and the assumptions in respect of both underpinning the environmental assessment.</p>

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<p>Explanation of the temporal scope of the ES assessments in relation to flood risk [APP-060], physical processes [APP-058], and climate change adaptation [APP-061], and whether the approaches taken are robust given that some components of the Proposed Development would remain in perpetuity.</p>	<p>The Applicant submitted that each environmental statement topic has its own guidance and professional standards in relation to assessing the temporal scope, which explains the variation in timelines. For example, assessment of the temporal scope in relation to flood risk relies on the Environment Agency's guidance. The temporal scope of the assessments of the landside development do not need to be revisited however, the Applicant agreed to take the point away in respect of the marine elements, using the typical life of similar marine infrastructure to assess whether the temporal scope of any assessments need to be extended.</p>
<p>Explanation of dredging in the context of the information presented in the ES [APP-058] relating to physical processes, including the nature and scale of dredging required as part of the Proposed Development and a comparison with any other dredging regimes within the estuary</p>	<p>The Applicant submitted that it is estimated that a maximum of approximately 4,000m<sup>3</sup> of material in total will be removed from the Humber during construction of the Project. This is in contrast to the 4,500,000m<sup>3</sup> of material that is removed annually from the Humber.</p>
<p>Clarification about potential changes to EA flood models in 2024, including whether there are material implications for the ES assessments.</p>	<p>The Applicant is aware of the potential update to the EA flood models, but there is no definitive date at which the modelling will be available and such, the Applicant is unable to predict impacts on the Proposed Development. If the updated models are received within the next 4 months, the Applicant agreed to update the Flood Risk Assessment. If the models are received after this point, the Applicant will use best endeavours to do so.</p> <p>The Applicant and the Environment Agency took an action to produce a joint note on the EA flood models and potential impact on the Proposed Development.</p>

### 3 APPLICANT'S SUMMARY OF CASE ON ITEM 4: WATER QUALITY AND RESOURCES

#### 3.1 Item 4 (Water Quality and Resources)

Table 4.1 – Item 4 (Water Quality and Resources)

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Issue Discussed	Summary Of Oral Case
<p>What measures would be in place to ensure the risk of significant impacts from potential discharges to the surrounding water courses including the Humber are minimal. This should include but not be limited to containment features and testing regimes as part of the sites overall strategy to minimise the risk of water pollution.</p>	<p>The Applicant responded by reference to the construction and operational phase as follows.</p> <p><b>Construction phase:</b></p> <p>The Applicant confirmed that the Outline CEMP [APP-221] commits to the development of a water management plan and the outline of that water management plan (“WMP”) is given in the outline CEMP (APP-221) at Table 15. Paragraph 1.1.9 of the CEMP states: “The WMP: to include measures necessary to avoid, prevent and reduce adverse effects where possible upon the local surface water environment. This will include steps to remove the risk of damage to water assets. The WMP will be incorporated into the Final CEMP”.</p> <p>The Applicant explained the WMP will:</p> <ul style="list-style-type: none"> <li>• include measures to control fine sediment, surface water runoff, flooding and de-watering;</li> <li>• provide details of temporary drainage facilities within the Work areas, including within temporary Work areas, to ensure controlled discharge of surface water run-off and these will cover items such as:             <ul style="list-style-type: none"> <li>○ swales, silt fences and appropriately sized settlement tanks;</li> <li>○ cut-off ditches or geotextile silt-fences, installed around excavations;</li> </ul> </li> <li>• include requirements that the site access points will be regularly cleaned to prevent build-up of dust and mud;</li> <li>• require oil interceptors to be installed notably on the outflow from the settlement pond to reduce the potential risk for contamination of groundwater and surface water.</li> </ul> <p>The WMP will also include a Prevention Plan and an Emergency Response Plan which will include:</p> <ul style="list-style-type: none"> <li>• containment measures such as drip trays, bunding or double-walled fuel and oil tanks;</li> <li>• an Emergency Spillage Plan;</li> </ul>

- measures to ensure that mixing and handling of materials will be undertaken in designated areas and away from surface water drains;
- measure to ensure plant and machinery wherever possible will be kept away from surface water bodies; and
- issues like refuelling and delivery areas will be segregated and located away from surface water drains.

### **Operational phase:**

The Applicant explained that indicative details of the drainage scheme are in the outline drainage strategy (APP-210) and will be included within the final drainage strategy, approval of which is secured through Requirement 12 (APP-006 schedule 2)

Within the landside facilities (Work Nos 3, 5 and 7), the drainage system considers the management of the following types of water on the site which may drain into the drainage ditches and ultimately into North Beck and the Humber. These types of water are:

- Clean Stormwater;
- Accidentally oil contaminated (AOC) water;
- Potentially ammonia or chemical contaminated water;
- Fire fighting water in case of a fire event.

The Applicant confirmed that the water quality component of the site drainage will also be controlled by the environmental permit.

The Applicant then elaborated on the different types of water and containment and testing to ensure that these potential sources of contamination are not able to impact the surrounding watercourses.

### Clean Stormwater

- This comprises rainwater which falls on areas of the site which are not normally at risk of contamination;

- Such areas would include building roofs, paved areas that are away from process equipment, gravelled areas around the site etc;
- Clean stormwater is collected and routed towards a large water retention pond;
- Water from the retention pond is released into the adjacent drainage ditch at a maximum rate to be agreed with the IDB;
- There is an isolation valve at the retention pond so it does not auto discharge and it will be an operations routine to regularly visually inspect the retention pond prior to water discharge.

### Accidentally oil contaminated water

- This relates to rainwater which falls on areas which are at risk of minor oil contamination such as road trailer parking areas around tanker refuelling areas with high levels of traffic, any heavy traffic roads, or around equipment which uses lubricating oils etc;
- Drains from these areas are routed to a number of oily water separators;
- From these, clean, oil free water from the separator is then routed to the water retention pond;
- Equipment with potential for oil leaks such as pumps or compressors [or spills] will be contained within a bund or kerbed area and will have a sump. The sump will be connected to the oily water drains and routed to the oily water separator. The sump will have a normally closed valve so that water would not be released until an operations personnel has inspected and it will only be released once it is seen to be clean;
- Transformers - which have a larger inventory of oil - will be contained within a bunded area or a pit and isolated from the drainage network. Any oil or water collecting in the pit would be removed via suction tanker rather than discharged to drainage network.

### Ammonia / glycol contaminated water

- This comprises rainwater which falls on areas around the ammonia pumps near the storage tank. That area will be bunded with a water collection sump. The sump will be connected to the water retention pond;



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	<ul style="list-style-type: none"> <li>• The sump will have an isolation valve and an instrument to detect any potential contamination;</li> <li>• If the instrument detects contamination in the water, the isolation valve will automatically close;</li> <li>• No operator intervention required at that point.</li> </ul> <p><u>Firewater (this releases a lot more water into the system)</u></p> <ul style="list-style-type: none"> <li>• During a fire event, firewater will route to the water retention pond, either via the clean water system or the AOC system;</li> <li>• In that situation, the pond is suitably sized with a capacity to contain two hours' retention for maximum firewater discharge (1 event);</li> <li>• The pond isolation valve will be closed in the event of a fire and the pond water inspected and tested prior to any release to the adjacent drainage ditch.</li> </ul> <p>The Applicant confirmed that in the full phased development, there may be more than one retention pond and therefore more than one discharge point to the ditch, but the processes / concepts set out above will still apply.</p>
<p>Explain the non-potable water requirements of the process, from the start of the project to the final phase when all the hydrogen production units are online.</p>	<p>The Applicant confirmed that the main use of water on site is as cooling water and the design has accommodated the fact that this can be non-potable water.</p> <p>The Applicant explained that the hydrogen production facility has a cooling water system with traditional industry cooling towers which cool the water with fans and circulates that cool water to the liquefier process units (as the primary users of the cooling water). There are some other users of cooling water around the facility, but overwhelmingly the largest user is the liquefier process units.</p> <p>The Applicant explained that water demand is driven by the need for the water consumed by the cooling water system to be replaced. The water is consumed in two ways:</p> <ul style="list-style-type: none"> <li>• Evaporation (inherent in the cooling process) is the major consumer of water (approx. 70-80% of water consumed);</li> </ul>

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	<ul style="list-style-type: none"> <li>Discharge: over time the level of suspended solids and other contaminants in the cooling water volume build up which need to be discharged to keep water quality to a certain level (approx. 20-30% of water consumed).</li> </ul> <p>The Applicant explained that the design of the hydrogen production facility has incorporated a water treatment package which has reduced the amount of water to be discharged and thereby reduces the non-potable water supply requirements. This element of design evolution has resulted in the reduction of water demand requirements from what was initially anticipated in the earlier stages of the Project.</p> <p>The Applicant demonstrated the demand through the construction phases which align with the timing for when each liquefier will be built:</p> <table border="1" data-bbox="707 598 1646 1046"> <thead> <tr> <th colspan="4">Cooling water demand</th> </tr> <tr> <th>Phase</th> <th>No of liquefiers</th> <th>Demand</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1</td> <td>832.5</td> <td>m3/day</td> </tr> <tr> <td>2</td> <td>2</td> <td>1615.5</td> <td>m3/day</td> </tr> <tr> <td>3</td> <td>3</td> <td>2359.25</td> <td>m3/day</td> </tr> <tr> <td>4</td> <td>4</td> <td>3072.00</td> <td>m3/day</td> </tr> <tr> <td>5</td> <td colspan="3">Not installing any further liquefier units and therefore water demand stays the same as shown in Phase 4 (no additional water demand)</td> </tr> <tr> <td>6</td> <td colspan="3">As above: no additional water demand</td> </tr> </tbody> </table> <p>The Applicant confirmed that Air Products has been in extensive discussion with Anglian Water regarding supply of the non-potable water and have now received a commercial offer and commitment from Anglian Water for supply of 3,456 m3/day which will satisfy normal demand figures outlined above and allow some flexibility for periods of higher demand. Discussions with Anglian Water are regular and productive, and will continue to be held through to actual delivery of the water.</p>	Cooling water demand				Phase	No of liquefiers	Demand		1	1	832.5	m3/day	2	2	1615.5	m3/day	3	3	2359.25	m3/day	4	4	3072.00	m3/day	5	Not installing any further liquefier units and therefore water demand stays the same as shown in Phase 4 (no additional water demand)			6	As above: no additional water demand		
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<p>What options have been explored to source the most sustainable non-potable water supply. If the most</p>	<p>The Applicant explained that at the concept design stage of the Project, Air Products considered a number of different water supply options to identify the most sustainable source. The options explored were:</p>																																

sustainable sources will not be used, explain the reasons for this.

Rain water harvesting. Air Products carried out some assessments of rainwater falling on the site and what level of water could be collected. This was discounted due to inconsistent supply and the level of water that could be collected in this way, on average over the year, would only amount to 5% of the total demand for the cooling water system and at times it would be 0%. It was considered that the level of capital expenditure for additional infrastructure and construction work required to make that water harvesting effective for such a small percentage of the eater demand did not make it a sustainable source.

Final effluent re-use. The Applicant confirmed this was discounted for this Project (in discussion with Anglian Water) for a number of reasons:

- It could not be delivered within the timescales to suit the Project. This was partly because it is not proven technology at this stage nor approved by the EA (although a trial project is underway).
- Extensive infrastructure is required to deliver this source. In addition to the additional processing units at the Pyewipe centre, a pipeline to bring water to the hydrogen production facility would also be required. Therefore, it was considered that it was not in a cost effective way unless the water demand was much larger than this Project alone.
- The reductions in water requirements achieved through the water recycling and water treatment package within Work No. 7 means that the water requirement can be provided with existing infrastructure by Anglian Water. The fact that the water can be supplied without significant additional infrastructure or significant capital expenditure makes it the most sustainable source.

The Applicant confirmed the agreement with Anglian Water to receive non potable water via the existing non-potable water main in Laporte Road is the most sustainable source for two key reasons:

- the water can be supplied using existing infrastructure – other options involved extensive construction works with associated environmental impacts of that work; and

Anglian Water through the Water Resource Management Plan programme is separately committed to providing water in the most sustainable method.

4 **APPLICANT'S SUMMARY OF CASE ON ITEM 5: NAVIGATION AND OPERATIONAL SAFETY**

4.1 **Item 5 (Navigation and Operational Safety)**

Table 5.1 – Item 5 (Navigation and Operational Safety)

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<b>Issue Discussed</b>	<b>Summary Of Oral Case</b>
Explanation of the roles and division of responsibilities and accountabilities, including any areas of overlap, in relation to navigational and operational safety of vessels using all facilities on the Humber.	The Applicant submitted the following in relation to the roles and responsibilities relevant to the safety of vessels on the Humber as well as the Proposed Development:  <u>Humber Estuary SHA and The Humber Harbour Master ("HMH")</u>  The history of the function of the SHA for the Humber Estuary is complicated.

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<p>Explanation of how these roles and responsibilities relate to the Proposed Development.</p>	<p>In short ABP inherited the role of SHA for the Humber Estuary upon privatisation of the British Transport Docks Board to create ABP in 1981 as the successor to the Humber Conservancy Commissioners. The Commissioners were originally charged by statute to manage the Humber Estuary and be responsible for conserving and maintaining the navigation and ensuring the Estuary was operated safely for the benefit of all users.</p> <p>ABP performs its function as SHA for the Humber Estuary through Humber Estuary Services (“HES”). HES is responsible for the management and safety of all navigational traffic within the statutory defined harbour limits of the River Humber.</p> <p>HES is discharging the responsibilities of the SHA for the Humber Estuary as an entirely separate function within ABPs corporate structure performed entirely separately. It is independent from ABPs commercial operations on the Humber, that is an important point, albeit HES exists within ABPs corporate structure. It does have independence. HES is accountable to and at the direction of the Harbour Authority Safety Board (“HASB”) – see further below.</p> <p>The HMH is authorised by the HASB to perform statutory functions HES is responsible for on a day to day basis.</p> <p>The SHA area for the Humber Estuary is shown on the aerial image of the Estuary included in the slide presented at ISH1. The Humber Estuary SHA area excludes the SHA areas of Grimsby, Immingham, Hull and Goole (only the SHA for Immingham is shown on the aerial image). The blue line on image shows the eastern extent of the of the Humber Estuary SHA jurisdiction which extends all the way up the Humber to Goole and down the River Trent. The blue line around Immingham shows where the Immingham SHA resides. Other SHA limits on the Humber are not shown but ABP has them around the Ports of Grimsby, Hull and Goole and SHA limits exist around the Port of Killingholme operated by CLdN as SHA for Killingholme.</p> <p><u>Competent Harbour Authority (“CHA”)</u></p> <p>ABP are the CHA responsible for provision of pilotage services on the Humber Estuary. Pilotage is a service provided to ensure the safe transit of ships in the Estuary. A Humber Pilot will be transported to a vessel either inbound to a Humber Port or outbound from one of the Humber Ports. The Pilot will go to the bridge off the vessel and provide the vessel master with expert local navigation advice to ensure safe navigation.</p> <p>ABP perform the function of CHA for the Humber though HES.</p>
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The jurisdiction of ABP as CHA extends over the whole of the Humber Estuary including all of the individual SHA ports i.e. Grimsby, Immingham, Hull, Goole, Killingholme etc. To that extent the CHA jurisdiction of ABP for pilotage incorporates the individual SHA areas. This reflects the fact that practically, for an estuary of the size of the Humber, with the number of vessel movements that occur in the Estuary, pilotage has to be provided across the whole of the Estuary as a single co-ordinated service.

HASB can direct HES as to the requirement for and provision of pilotage in the Humber Estuary. That is the reporting line that sits outside of the commercial operation of the Estuary.

### Port of Immingham SHA

Port of Immingham is operated by ABP as a commercial operation.

The Dock Master Immingham ("DMI") is the SHA for the Port of Immingham. DMI is responsible for the management and safety of all navigational traffic within the statutory defined harbour limits of the Port of Immingham including dredging. He is also responsible for servicing the efficient running of the commercial operation from a navigational viewpoint. For safety matters DMI is accountable to and at the direction of the HASB.

The SHA areas of HES and DMI abut but crucially they do not overlap. The SHA area for the Port of Immingham is shown edged blue on the aerial image of the Estuary presented at ISH 1. As indicated the CHA responsibility flows across the whole estuary including the individual SHA areas.

### Harbour Authority and Safety Board ("HASB")

HASB exists with the wider ABP corporate structure as an independent Board from the ABP Executive Board. HASB has its own remit, Governance and Constitution.

HASB governs all of the SHA and CHA functions ABP is responsible for e.g. Humber Estuary, Grimsby, Immingham, Hull, Goole, Southampton, Cardiff, Swansea, Port Talbot and other ABP pots around the UK. Its responsibility is to take safety decisions acting independently from ABPs commercial board and its function as a commercial port operator.

The HASB also enables ABP to discharge the requirements of the "Duty Holder" function described in the Port Marine Safety Code ("**PMSC**") and specifically the 'Duty Holder' function.

The PMSC is a voluntary code of good practice that port operators sign up to. The PMSC and its associated Guide to Good Practice. The sets out a national standard for port marine safety in the UK

which incorporates industry wide good practice advice on how safety matters should be assessed and quantified and managed. It sets out the key responsibilities for safety management in harbours, and a framework for the safety management processes which underpin that agreed industry wide good practice. The Duty Holder within ABP is identified as HASB, a group who are individually and collectively accountable for compliance with the Code and their performance in ensuring safe marine operations in the harbour and its approaches.

### Maritime and Coastguard Agency ("MCA")

The MCA is a government agency that is responsible to the Secretary of State for Transport in advising on the composition and application of the Port Marine Safety Code and Good Practice Guide to all ports in the UK.

The MCA has regulatory safety jurisdiction for UK ships working anywhere in the world and international flagged ships and those working on them in UK water (including inland areas such as ports).

The MCA does not have jurisdiction as a navigation authority either SHA or CHA nor does it have powers to regulate ports and harbours. The PMSC provides guidance on that should be done by the relevant Shas and CHAs but that is not the MCAs function

### Trinity House ("TH")

TH is not specifically empowered to control or manage navigational matters. However TH has a vital supporting role which requires them to exercise specific regulatory powers. TH is a charity dedicated to safeguarding shipping and seafarers, providing education, support and welfare to the seafaring community with a statutory duty as a General Lighthouse Authority to deliver a reliable, efficient and cost-effective aids to navigation for the benefit and safety of all mariners.

HMH is the Local Lighthouse Authority for the Humber Estuary and reports to TH on the position of lights and buoys in the Humber Estuary.



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<p>Identification of any relevant safety codes, management plans, good practice guides, safety measures that the Proposed Development must comply with. Do any fall within the definition of marine policy documents and, if so, how do they relate to Section (s)104 of the Planning Act (PA2008).</p>	<p>The Applicant took a post-hearing action to provide a list of all relevant safety codes, management plans, good practice guides, safety measures that the Proposed Development must comply with.</p> <p>In terms of whether any of these documents fall within the definition of marine policy documents, the Applicant noted that it is (s)59 Marine and Coastal Act 2009 (MCA2009) that determines which are the appropriate marine policy documents the Secretary of State must take into account under (s)104 PA2008.</p> <p>The Applicant then explained that the documents within the list of guidance, noting the Port Marine Safety Code as an example, whilst important to the Applicant do not fall within (s)59 MCA2009. It was emphasised that this does not mean that such documents are not relevant or important, but is simply their legal status under the MCA2009.</p> <p>The Applicant further noted that (s)59 MCA2009 includes any marine plan and marine policy statement which is in effect for that area. Further, (s)51 MCA2009 defines a 'marine plan' as a 'document that has been prepared and adopted for a marine plan area'. None of documents within the list that will be submitted have the status of a marine plan under (s)51 MCA2009, nor are they appropriate policy documents under (s)59 MCA2009. This does not underplay their importance to the project, but just explains their legal status.</p>
<p>Discussion on the overall capacity within the Humber to accommodate the Proposed Development, including any implications the Proposed Development would be likely to have on shipping services and navigation to and from the Humber ports.</p>	<p>The Applicant took a post-hearing action to provide a detailed note on this item at Deadline 1.</p> <p>The Applicant dealt with the topic of speed separately, noting that this builds on the matter of capacity more generally. In relation to this, the Applicant submitted that an extension of the 5 knot speed limit was proposed when passing the occupied jetty head on the IGET scheme in the same way this is imposed on vessels passing the three IOT jetties on the river. The Applicant will similarly match the 150m exclusion zone around the IOT jetty.</p> <p>To make an assessment of the impact on transit times, the Applicant commissioned Anatec who modelled vessels passing IOT jetties using track data. The Applicant noted that the Anatec study concluded that when the berth is occupied, there would be an incremental less than 2.5 mins to the entire Humber passage. As such, when looking at 3 hours movement through river as a maximum, including mooring and berthing time, this would add an additional 2.5 minutes to that segment and in the context of a vessel crossing the North Sea, it would not be material.</p>

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<p>Post-hearing note to Examining Authority</p>	<p>At ISH 3 item 5.4 (Navigation and Operational Safety) we indicated that at Examination Deadline 1 we intended to supply the Examining Authority with a more detailed note on the history and operational roles of SHAs and CHA functions and other marine functions on the Humber. We also indicated that we understood that the Harbour Master Humber (HMH) would be proving the Examining Authority with similar information at that Examination Deadline.</p> <p>Having subsequently liaised with those representing the HMH in order to understand the scope and content of the equivalent information to be submitted on his behalf, it has become apparent that this will include such further detail as the Applicant had intended to provide at Deadline 1. In those circumstances we do not consider it necessary for the Applicant to duplicate the information to be provided on behalf of the HMH by adding at Examination Deadline 1 to the evidence given by Paul Bristowe in relation to item 5.4 5.4 of ISH 3. Mr Bristowe's evidence is confirmed in the summary of his written evidence to ISH 3, as summarised above.</p> <p>Obviously if, having considered the written summary of Mr Bristowe's evidence and the information to be submitted on behalf of the HMH, the Examining Authority has any further questions on these matters the Applicant will answer them. Equally if the Applicant feels it can assist the Examining Authority further to the submission of the HMH to Deadline 1 the Applicant will provide that in a response to the Witten Representation of the HH at Examination Deadline 2 on 26 March 2024.</p>
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<p>Discussion on the Applicant's Navigational Risk Assessment and Navigational Simulation Survey. Focusing on, but not limited to the overall approach, robustness of conclusions and the suitability and deliverability of identified mitigation measures.</p>	<p>The Applicant submitted the following in relation to the navigational risk assessment and related surveys:</p> <ul style="list-style-type: none"><li>• The study area over which potential impacts could be experienced, was from the Humber Bridge (west of IGET) to the harbour limits in the approaches to the Humber (east of IGET).</li><li>• Baseline data, gathered from a year of AIS vessel tracking data, was collected to assess the existing marine and navigational features of the study area. This data showed an average of 78 vessels per day using the Humber in the vicinity of the IGET scheme, the vast majority of which naturally pass to the north of the IGET berth line and its planned 150m passing distance.</li><li>• A site visit in January 2023 was conducted and ten years of historical incident data within the study area was reviewed. The findings of the Navigation Simulations conducted by HR Wallingford in April 2023 were reviewed [APP-192] and did not raise any concerns for vessels arriving or departing the Project, or the neighbouring IOT jetties. For passing traffic, it was demonstrated that vessels will be able to pass safely to the north of the Project.</li><li>• A key component of the NRA was the Navigational Hazard Review Workshop [APP-191] with port personnel and port users. At this workshop, the methodology, based on PMSC and IMO guidance, was presented and it was confirmed that there were no comments on this. It was concluded within this workshop that no attendees considered any of the hazards presented to be intolerable or unacceptable.</li><li>• After the workshop, each of the hazards identified was risk assessed and ranked in terms of frequency vs consequence based on its most likely and worst-credible outcomes. A draft hazard log was provided for comment and the final hazard log is presented in the NRA [APP-191].</li><li>• A key mitigation measure will be the alignment of the berth to the existing IOT which maintains the channel width for passing traffic. Similarly, many of the risk controls that apply at the neighbouring IOT will apply at IGET, such as:<ul style="list-style-type: none"><li>- Passing distance of 150m from berth line</li></ul></li></ul>
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	<ul style="list-style-type: none"> <li>- Maximum speed limit of 5 knots when passing the Project berth (applies when a vessel is mooring, moored or unmooring)</li> <li>- Traffic management procedures in place (e.g., VTS and Humber Passage Plan)</li> <li>- Pilotage, etc.</li> <li>• The Project has undertaken to implement all 41 of the mitigation measures that are documented within the Hazard Log [APP-191, Table 11.3], many of which are already in place on the Humber and/or are standard industry practice.</li> <li>• The approach taken and results of the NRA were approved by the Harbour and Safety Board, as Duty Holder, who agreed that the navigational risks associated with the Project are Tolerable and ALARP.</li> </ul>
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### 5 APPLICANT'S SUMMARY OF CASE ON ITEM 6: MARINE ECOLOGY AND HABITATS REGULATIONS ASSESSMENT MATTERS

#### 5.1 Item 6 (Marine Ecology and Habitats Regulations Assessment Matters)

Table 6.1 – Item 6 (Marine Ecology and Habitats Regulations Assessment Matters)

Issue Discussed	Summary Of Oral Case
<p>Conflicts have been noted in ES Chapter 9, Marine Ecology [APP051] regarding the proposed piling times and temporal restrictions and these will be discussed to ensure clarity.</p>	<p>The Applicant explained that the maximum duration of piling that could occur as a result of all three piles is 270 minutes. The Applicant explained that the position (with respect to mitigation) as submitted within the DCO application has since changed through discussions with the MMO, and that a piling reporting protocol which is directly related to the 270 minutes a day scenario is being explored, so that the actual cap on piling reflects this duration except in exceptional circumstances.</p> <p>For example, if a marine mammal entered the area and the Applicant needs to redo the soft start procedures an exceedance may occur. The Applicant would report details of the piling undertaken,</p>

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	<p>including any exceedances, to the MMO on a fortnightly basis and have meetings with them to discuss remedial actions if required.</p> <p>In response to the panel’s questions, the Applicant submitted the following:</p> <ul style="list-style-type: none"> <li>• There is not a blanket no piling restriction every month of the year at night and the ES will be clarified in this respect. There is a night time restriction between 19:00 and 07:00 and other months where it is sunset to sunrise which reflects the migratory species that are moving through the estuary and use it at night in those particular months.</li> <li>• The Applicant would not undertake vibro piling without the percussive piling as the two are effectively linked in terms of when those would happen in sequence. As such the Applicant has committed to not undertaking vibro piling at night where there is an equivalent restriction in place for percussive piling.</li> </ul>
<p>Discussion around the cumulative effects of underwater noise on marine mammals and fish and possible use of noise abatement methods in addition of other mitigation.</p>	<p>There were discussions with the MMO in respect of in-combination or cumulative effects arising from IERRT and IGET at the later stages of the IERRT examination. As such, the Applicant can provide the panel with documentation around the agreement reached with the MMO as well as information as to what would happen if the projects were to run concurrently.</p> <p>Further, Natural England in their advice on cumulative and in-combination effects for the IERRT examination, which included IGET information, concluded there would be no adverse effect on integrity from piling and underwater noise resulting from the in-combination effects from both projects as a result of the information presented to them.</p>
<p>Explanation of the Applicants existing biosecurity management procedures that are mentioned, but not described, in the Shadow HRA Report and how these would be carried out during construction/operation and secured in the dDCO.</p>	<p>The biosecurity plan is relevant to all of the ABP Humber ports and was developed with Natural England in 2016/17 and has been maintained since then. It is designed to ensure that the key pathways of introduction for non-native invasive species are understood and that those risk factors then can be duly managed. It also gives provision for understanding what invasive species might already be within a particular location so relative risks can effectively be managed on a site by site basis.</p> <p>There is also scope to include a specific activity and/or non-routine activities so that the plan can be updated and ensure that the measures are in place.</p> <p>The Applicant agreed to submit a copy of the biosecurity plan at Deadline 1.</p>

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<p>Explanation of Compensatory Habitat at Outstrays to Skeffling Managed Realignment Scheme (OtSMRS) and how this will directly offset identified loss of habitats.</p>	<p>The Skeffling Managed Realignment Scheme effectively creates intertidal habitat from what was formally agricultural land. A breach is made in the existing sea defence to allow sea water in and intertidal habitats to develop. The specific objective from an ABP perspective for the Skeffling site was to create a habitat bank of compensation land to draw down from when future port projects, or ABP activities arise.</p> <p>The environmental assessments that were associated with Skeffling included predicting what habitats would develop at that site in relation to primarily intertidal, mudflat, saltmarsh and transitional grassland. This was done by predicting what would happen immediately post-breach but also into the future.</p> <p>Skeffling was granted planning consent in 2019 and is currently under construction with breaching of the site proposed for later this year. On that basis, it is anticipated that marine sediment would start to accrete within the site very quickly resulting in the creation of mudflat within the site.</p> <p>One of the key advantages of the Skeffling site is the Welwick Managed Realignment Scheme which is immediately adjacent and an ABP owned scheme which allows the Applicant to derive lessons learned in the immediate vicinity. Within the first year of the breach of the Welwick site, target invertebrate species were seen within it and a diverse assemblage of different bird species were also being supported. As such, the Applicant is confident that the site, if needed as compensation, would be available and providing habitat by the time the losses would occur as a result of the IGET scheme.</p> <p>In relation to the panel’s concerns about the site being maintained in perpetuity, the Applicant noted that as part of the environmental assessments for the Skeffling scheme, habitat predictions had to be looked at both at the point of inundation and into the future. From this, the Applicant expects a range of intertidal habitats to develop at the site and noted that the area of the site that would be allocated to the Project is close to the creek network which is more likely to be retained as mudflat into the future. A provision has also been made to allow access to remove sediment if needed so if it became dominated by saltmarsh, for example, there is a provision within the Environmental Statement to allow for maintenance work if necessary.</p>
<p>Given that the Applicant’s IROPI case places emphasis on green energy, the green credentials of the site and the role that the Proposed Development would play towards meeting the Government’s net zero targets, the ExA requires further evidence from the Applicant to demonstrate how the</p>	<p>The Applicant’s primary case is that its submitted evidence demonstrates that the proposed development will not result in an Adverse Effect on Integrity of any European Site - either alone or in-combination with other plans and projects.</p> <p>However, if it is necessary to demonstrate that the proposed development has to proceed for IROPI then it is highlighted that such reasons go beyond just the green or net zero matters of the agenda item. Such reasons also include those relating to the need for new port infrastructure capacity which is established in the NPSfP and is identified as being in the public interest and compelling and urgent.</p>

<p>Proposed Development meets these credentials to satisfy the IROPI tests.</p>	<p>Despite this, each of the reasons relating to green and net zero matters are, in the Applicant’s view, sufficient in their own right to constitute IROPI.</p> <p>In terms of specific green and net zero related matters, the Applicant submits the following:</p> <ul style="list-style-type: none"> <li>• The proposed development would play a critical part in the overall strategy to achieving net zero by providing 300MW of low carbon hydrogen production when fully operational, which is the equivalent of 3% of the UK Government’s 2030 target of 10GW of low carbon production.</li> <li>• The proposed development would play a significant role in facilitating the import of around 10Mt of carbon for onward storage or use, which would equate to a third of the UK Government’s ambition to use CCU technology to capture 20-30 MT of carbon dioxide per year by 2030.</li> </ul>
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## 6 APPLICANT'S SUMMARY OF CASE ON ITEM 7: DECOMMISSIONING

### 6.1 Item 7 (Decommissioning)

Table 7.1 – Item 7 (Decommissioning)

Issue Discussed	Summary Of Oral Case
<p>Clarify the sections of the Proposed Development that would be decommissioned after 25 years of operation.</p>	<p>As summarised by the Applicant at the open of ISH3, the Applicant confirmed it is not proposed that any sections of the hydrogen production facility would be automatically decommissioned after 25 years of operation.</p> <p>In line with similar process or chemical facilities, the equipment and components within the hydrogen production facility have been designed with a minimum technical “design life” of 25 years.</p> <p>The Applicant explained that during the design and procurement phases, the process requirements for a piece of equipment or package will be specified alongside its intended design life. For example, a hydrogen storage vessel, that could be a simple design point for the vendor, it may just be a matter of</p>

adding a larger corrosion allowance. For more complex equipment, that design assessment is more complicated.

At the end of that technical and 'design life', it is likely that pieces of equipment, pipes, or other sections of the facility may need refurbishing or replacing. For example, a pump may become unreliable, or inefficient or, for a vessel, the wall thickness may over time become too thin. That component is therefore considered at the end of their technical and economic life.

At this point, and as part of an ongoing operational maintenance and integrity check process, the Applicant confirmed a technical and economic evaluation will be carried out of components of the facility and overall and the following may be chosen:

- Repair / overhaul the equipment; or
- Replace equipment or other components on a like for like basis; or
- Replace with different equipment to do the same job.

Through this ongoing process of refurbishment and replacing individual components of the facility, it is possible to extend the operation of the overall facility beyond the technical design life of any individual component.

The Applicant emphasised that the operational life of the facility is not the same as the minimum technical and design life of any individual component within it. Accordingly, (and as acknowledged in the ES Chapter 2, paragraph 2.7.2, [APP-044]) the operational life of the facility could be longer than 25 years, depending on its integrity and market conditions at the time.

The Applicant confirmed that there is no section of the facility or piece of equipment that would definitively be decommissioned at the end of its technical design life and there is no maximum point in time the hydrogen production facility would therefore be decommissioned. Provided that there are spare parts available, the facility remains safe, and there are favourable economic conditions, then all or parts of the facility will continue to operate beyond that technical design life.

The Applicant confirmed that at some point in the future, sections of the facility or possibly the whole facility, may get to a point that it is no longer economic to repair or operate due to various reasons (age, technology, energy efficiency of the facility, or business requirements) and at that point those components or parts of the facility may need to be decommissioned, but that is driven by those factors



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	<p>and not the technical design life of those components. Where decommissioning is required in that situation, it would be in accordance with the requirements of the DEMP and the environmental permit.</p>
<p>Should the operator decide the hydrogen production plant is to continue to operate after 25 years, what plant integrity and environmental impact assessments will they conduct before proceeding.</p>	<p>The Applicant explained that in addition to the ongoing maintenance strategy (forming part of the ongoing operational maintenance and integrity check process described in response to the previous question) which is put in place prior to the facility being commissioned, there will also be a program of Mechanical Integrity Assurance. This is a risk based inspection programme aligned with various codes or defined as part of existing regulation, for example, the Pressure Systems Safety Regulations 2000 (PSSR). The PSSR applies to any equipment, piping or process system that contains pressure, which covers broadly the majority of the hydrogen production facility and requires:</p> <ul style="list-style-type: none"> <li>• before any piece of equipment is put in place it must have a written scheme of examination in explaining how the integrity will be verified in future;</li> <li>• At set intervals, a competent person must carry out an inspection as per the written scheme of examination (such inspections to cover wall thickness, corrosion, other non-destructive testing);</li> <li>• Result of those examinations together with the original design data are used when considering fitness for service for the equipment and establishing the next point in time when further reviews need to happen.</li> </ul> <p>This is enforced by the HSE and is ongoing for the operational life of the facility. The Applicant confirmed that each piece of equipment under those regulations will go through this examination to ensure it is fit for purpose and to ensure a further examination date is set.</p> <p>The Applicant emphasised that there is no single "MoT" type integrity test for the overall facility, instead it is an ongoing regular basis of inspection and integrity verification required by regulation and enforced by the Competent Authority (being the HSE and EA).</p> <p>The Applicant confirmed that from an operational perspective, as long as the facility is in compliance with regulatory inspections, nothing further would need to be done to continue to operate beyond 25 years. It was noted that the environmental permit has its own requirements which would continue, and the COMAH safety report has to be updated every 5 years. Beyond that, there is nothing specific required at 25 years.</p> <p><b>Environmental impact assessment</b></p>

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	<p>The Applicant confirmed that each individual topic within an environmental statement has its own guidance and professional standards (for example, flood risk depends on Environment Agency guidelines to inform assessments) which explains why there is variation in the temporal scope of each of the assessments across chapters within the Environmental Statement as each relies on different guidance. The Applicant indicated its view that the assessments with varying temporal scopes would still be applicable if the design life of 25 years is extended following refurbishment.</p> <p>The Applicant agreed to address in its note on decommissioning and design life (to be submitted at Deadline 1), the temporal scope of various topics within the environmental impact assessment and to confirm its statement that the conclusions of the environmental statement would still hold good if operational life exceeded 25 years.</p>
<p>How does the dDCO secure the requirements needed before the plant is allowed to extend its operational life beyond 25 years.</p>	<p>The Applicant emphasised that the dDCO does not seek a time limited consent for either the NSIP or Associated Development. So far as the dDCO is concerned, nothing happens at 25 years, nor is there anything in the articles, requirements, or associated control documents to give 25 years a particular currency. The Project is therefore not put forward on basis that at the end of 25 years, the hydrogen production facility will be decommissioned and taken away; the assumption must be that the hydrogen production facility will continue past the 25 year design life.</p> <p>Article 41 of the dDCO confers the power to “maintain” the Project within Order Limits (“maintain” is defined to include “inspect, repair, adjust, alter, remove or reconstruct and any derivative of “maintain””) subject to certain exceptions (which are not relevant for the present purposes of this question). The power to maintain, however, is explicitly subject to the limitation in Article 41(2) which makes clear that it does not authorise the carrying out of works that would give rise to any materially new effects or materially different effects that have not been assessed in the environmental statement.</p> <p>Accordingly, provided that any maintenance to enable the hydrogen production facility to operate beyond its operational life is within the scope of Article 41, nothing further is required. To impose a new requirement that seeks to regulate such activity further when no such necessity for further regulation is identified through assessment would fail the test of necessity for imposing the requirement.</p>

**7 APPLICANT'S SUMMARY OF CASE ON ITEM 8: DRAFT DEVELOPMENT CONSENT ORDER**

**7.1 Item 8 (Draft Development Consent Order)**

Table 8.1 – Item 8 (Draft Development Consent Order)

Issue Discussed	Summary Of Oral Case
<p>MMO, provide justification for the drafting change you are seeking in Schedule 3 Draft Deemed Mariner License (dDML).</p>	<p>The Applicant noted that a draft detailed response to the MMO’s relevant representation is being prepared but the areas where the Applicant intends to maintain its position were highlighted as follows:</p> <ul style="list-style-type: none"> <li>• The definition of environmental statement</li> <li>• The MMO’s request to define public body entities</li> <li>• Explanation as to the relationship between the CEMP and outline CEMP. A detailed response to this will be provided to the MMO at deadline 1.</li> <li>• Additional paragraph suggested at the end of condition 20 which is rejected as the wording already appears in condition 6.</li> </ul> <p>As such, the Applicant noted that there are only a handful of discussion points left outstanding with the MMO and discussions will continue in the event that the MMO are not satisfied with the Applicant’s response and suggested amendments.</p>
<p>Details of the 1869 leasehold interest obtained by the Applicant [AS008, Paragraph 3.9], time period obtained for, the allowable works under the leasehold, corroboration from the relevant Crown Authorities.</p>	<p>The lease was entered into between the Crown Estate Commissioners on behalf of the Queen’s Most Excellent Majesty and the Board of Trade and the Humber Conservancy Commissioners on 1 January 1869 whereby the Board of Trade on behalf of Queen Victoria granted the Humber Conservancy Commissioners as a 999 year lease of that part of the foreshore and bed of the Humber and its estuary shown on a plan.</p> <p>The Applicant is the successor to the Humber Conservancy Commissioners and the Crown Estate is the successor to the Crown Estate Commissioners on behalf of the Queen’s Most Excellent Majesty. As such, the Applicant has the benefit of the residual term of 844 years and the extent of the lease demise includes the order limits, beyond ABP’s own freehold title.</p>

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In respect of the allowable works under the leasehold, the lease provides that ABP must not execute any embankment or other work on the demise foreshore except with the consent of the Crown Estate in writing. This has been received from the Crown Estate and the letter will be provided at Deadline 1. The Applicant noted that Carter Jonas have also confirmed on behalf of the Crown Estate that they are content with the form of Article 60 which relates to Crown rights in the draft development consent order.

The Applicant also took an action away to confirm how ABP is the successor in title benefitting from the lease, which it has done in response to part (g) of Q.173.1 (Leasehold interest over Crown Land) of the Examining Authorities Written Questions 1 (WQ1), which will be submitted in writing at Deadline 1.

In relation to agenda item (vii), the Applicant took a post-hearing action to address this item at Deadline 1 in a separate note.