



Immingham Green Energy Terminal

9.81 Applicant's Response to the Examining Authority's Action Points from Issue Specific Hearing 8 (ISH8)

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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 Project, 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 onsite into green hydrogen, making a positive contribution to the United Kingdom's ("UK's") net zero agenda by helping to decarbonise the UK's industrial activities and in particular the heavy transport sector.
- 1.6 A detailed description of the Project is included in **Environmental Statement** ("ES") Chapter 2: The Project [REP3-022].

Purpose and Structure of this Document

1.7 This document provides the Applicant's response to the actions arising from Issue Specific Hearing 8 (ISH8), held on 2 July 2024, which were collated in the Examining Authority's **Action Points from Issue Specific Hearing 8 [EV11-001]**, issued July 5 2024.





1. Applicant's Response to the Examining Authority's Action Points from Issue Specific Hearing 8 (ISH8)

ISH Action Point 1

Agenda Item 2 – Applicant's Proposed Further Changes

Provide a note in relation to construction timings on Saturdays, including an explanation of the relevant guidance that regulates the timing of construction noise.

The construction noise assessment is presented in **Environmental Statement ("ES") Chapter 7: Noise and Vibration [APP-049]** and additional information is presented in **Appendix 10** of the **Proposed Further Change Application Report [AS-144]**. The assessment uses the data and procedures given in BS 5228:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise ("BS 5228 Part 1").

The assessment involves the calculation of noise emissions from the construction site based on the sound power levels associated with the plant or equipment to be used, and the propagation of noise from each noise source to the location of the noise sensitive receptors ("NSRs"). Sound power levels are taken from manufacturers' data and/or archive data given in BS 5228 Part 1. The calculated levels are then compared to nominated criteria in BS 5228 Part 1 to determine whether an adverse impact is expected.

For residential NSRs, the 'ABC' method (detailed in BS 5228 Part 1 Section E.3.2) sets construction noise thresholds for residential NSRs for different time periods (e.g. day, evening, night and weekends) based on the existing ambient noise levels. For the appropriate period (day, evening, night, weekend, etc.), the existing ambient noise levels are determined (through noise measurements at NSRs). The measured noise levels are then rounded to the nearest 5dB and used to derive the appropriate noise threshold value using the construction noise thresholds set out in **Table 1** below. The predicted construction noise levels are then compared with these construction noise threshold values to indicate whether a significant effect is likely to occur at residential NSRs.

Table 1: Construction noise thresholds at residential NSRs





Assessment category and threshold value period	Threshold value $L_{Aeq,T}$ dB – free-field		
	Category A (a)	Category B (b)	Category C (c)
Night-time (23:00 – 07:00)	45	50	55
Evenings and weekends (d)	55	60	65
Daytime (07:00 – 19:00) and Saturdays (07:00 – 13:00)	65	70	75

NOTE 1: A potential significant effect is indicated if the $L_{Aeq,T}$ noise level arising from the site exceeds the threshold level for the category appropriate to the ambient noise level.

NOTE 2: If the ambient noise level exceeds the Category C threshold values given in the table (i.e. the ambient noise level is higher than the above values), then a potential significant effect is indicated if the total $L_{Aeq,T}$ noise level for the period increases by more than 3dB due to site noise.

NOTE 3: Applies to residential receptors only.

- (a) Category A: Threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are less than these values.
- (b) Category B: Threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are the same as Category A values.
- (c) Category C: Threshold values to use when ambient noise levels (when rounded to the nearest 5dB) are higher than Category A values.
- (d) 19:00 23:00 weekdays, 13:00 23:00 Saturdays, 07:00 23:00 Sundays.

As stated in the BS 5228 Part 1 ABC method and shown in **Table 1** above, there are different noise thresholds for weekday daytime and Saturday morning periods (classed as weekdays (07:00–19:00) and Saturday mornings (07:00–13:00)) than for evening and weekend periods (classed as 19:00–23:00 weekdays, Saturday afternoons (13:00–23:00) and Sundays (07:00–23:00)). BS 5228 Part 1 Section 6.3(d) acknowledges this difference in receptor sensitivity at different times, stating "Hours of work. For any NSP [noise sensitive premises], some periods of the day will be more sensitive than others. For example, levels of noise that would cause speech interference in an office during the day would cause no problem in the same office at night. For dwellings, times of site activity outside normal weekday and Saturday morning working hours will need special consideration." As such, the ABC method assigns evening and weekend periods a 10dB lower threshold than weekday daytime and Saturday morning periods.





The construction noise assessment presented in **ES Chapter 7: Noise and Vibration** [APP-049] and additional information in **Appendix 10** of the **Proposed Further Change Application Report** [AS-144] has considered the potential impact magnitude and significance of effects for the proposed core landside construction working hours (07:00 to 19:00 Monday to Saturday) as stated in the **Outline Construction Environmental Management Plan** [AS-043]. Therefore, two different construction thresholds have been assessed to cover these hours reflecting the above ABC method, as follows:

- Weekdays 07:00 to 19:00 and Saturday mornings 07:00 to 13:00
- Saturday afternoons 13:00 to 19:00

Given the 10dB lower threshold on Saturday afternoons, there is greater potential for significant adverse effects during this period compared to the same predicted levels of construction noise resulting from works undertaken on weekdays/Saturday mornings.

ISH Action Point 2

Agenda Item 2 – Applicant's Proposed Further Changes

Provide a note on sound monitoring location methodology for ML4 which represents NSR4.

Key Noise Sensitive Receptors ("NSRs") which are considered representative of the nearest and potentially most sensitive existing receptors to the Site were initially identified during the EIA scoping and updated during the PEIR and Environmental Statement ("ES") stages based upon knowledge of the local area and professional judgement. It is considered that if noise and vibration levels are suitably controlled at these receptors (being representative), then noise and vibration levels will be suitably controlled at other sensitive receptors in the surrounding area, but which are more distant from the Site. The noise monitoring locations and key NSRs are shown on **ES Figure 7.1: Sound Monitoring Locations [APP-084]**.

ES Figure 7.1: Sound Monitoring Locations [APP-084] shows three green dots representing NSR 3 and seven blue dots representing NSR 4. These dots denote locations where the operational sound levels were predicted to cover the range of residential receptors covered by NSR 3 and NSR 4. The range of the predicted operational sound levels at the green dots for NSR 3 and blue dots for NSR 4 was reported in **Table 7-23** of **ES Chapter 7: Noise and Vibration** [APP-049].

NSR 4 was selected to be representative of residential properties at Somerton Road, Worsley Road, Dunster Walk, Ings Lane, Oakham Walk, Talbot Road and Kendal Road (i.e. the eastern extent of Immingham's residential urban area, located to the west of Work No.7).





Contact was made with various residents in the vicinity of NSR 3 and NSR 4 to seek permission to access their external garden areas to leave noise monitoring equipment for up to a week; permission was granted at 17 Spring Street (ML 3, representative of NSR 3) and 29 Talbot Road (ML 4, representative of NSR 4).

Unattended noise monitoring was undertaken at ML 4 inside the garden of 29 Talbot Road (as shown on **ES Figure 7.1: Sound Monitoring Locations [APP-084]**) between 19 April 2023 and 27 April 2023 to establish the existing baseline ambient and background sound levels. ML 4 was selected based on the location being considered to be representative of NSR 4 as explained below.

ML 4 is a greater distance from Kings Road/A1173 than the other NSR 4 receptors and, given the road noise on Kings Road/ A1173, the existing sound level recorded at ML 4 will be lower than levels at those other NSR 4 receptors. This means that the setting of the construction noise thresholds and the background sound levels used in the operational noise assessment by reference to ML 4 represents a worst-case scenario. Although there are NSR 4 receptors which are slightly closer to Work No. 7 and which might be expected to experience slightly higher noise levels as a result of the development, this is more than off-set by the use of ML 4 and the lower baseline noise levels.

ISH Action Point 3

Agenda Item 2 – Applicant's Proposed Further Changes

Provide a note analysing the different piling types, to include amongst other things the duration of driven piling.

Driven piling for the landside works, using pre-cast piles which are simply driven into the ground, uses fewer component parts and involves fewer site activities than CFA piling, which requires the drilling of a hole using an auger, the installation of concrete and then installation of a reinforcing steel cage into that concrete and removal of spoil material. As such, the use of driven piling requires less time than CFA piling. It is expected that the use of driven piling instead of CFA piling in Work No. 7 would reduce the piling duration in Work No. 7 by approximately 4–6 weeks.





ISH Action Point 4

Agenda Item 3 - Marine Ecology and Habitats Regulation Assessment

Provide update on all yellow marked items in relation to Natural England Statement of Common Ground.

The table below provides an update on the Applicant's position on all remaining yellow items within the Natural England ("NE") Statement of Common Ground ("SoCG"). This references Natural England's most up to date position within Natural England's Deadline 4 response [REP4-054].

ID	NE position	Applicant position
NE19E – effects of dispersive (flight) and sub dispersive responses	Natural England re-iterates that the behavioural studies cited in the ES should not be relied upon in the assessment of potential impacts on SPA birds from disturbance events. The assessment should therefore consider the sub-dispersive responses in more detail. However, Natural England considers that the potential impacts will be adequately minimised through the provision of suitable mitigation measures.	The evidence collated to inform the assessment in the Habitats Regulations Assessment ("HRA") is considered robust, and includes a wide range of literature, bird disturbance surveys on the foreshore of the Port of Immingham, and takes account of noise monitoring data collected at the Port and applies the results of airborne noise modelling. Sub-dispersive responses (without mitigation) were considered in detail in Paragraph 4.10.27 of the Shadow HRA [REP4-014] with both dispersive and sub-dispersive responses considered to be very limited with the proposed mitigation. The Applicant welcomes Natural England's view that potential impacts will be adequately minimised through the provision of the suitable mitigation measures that have been proposed for the Project.
NE20 – Airborne Noise	Natural England's advice remains that it is	The mitigation measures proposed for the Project are
and Visual Disturbance	recommended that the most disturbing marine	in line with Natural England's advice, i.e. the most
to birds during	construction works (including approach jetty) are	potentially disturbing construction works (including

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construction – Programming of works	carried out in the summer and early autumn, with works that are less disturbing to the SPA birds taking place during the coldest months (December to February inclusive). However, Natural England considers that the potential impacts will be adequately minimised through the provision of suitable mitigation measures.	piling) within 200m of the mean low water springs ("MLWS") mark will be avoided between October and March inclusive.
NE21B – The use of soft starts during piling	NE21B – Natural England re-iterate that soft start piling may reduce the 'startle effect' on birds when piling starts, but it is not generally used as a mitigation measure to reduce the impacts on SPA waterbirds.	Noted. It remains the Applicant's view that the proposed mitigation (which includes a whole package of mitigation measures) will mitigate impacts of noise and visual disturbance from construction on Special Protection Area ("SPA") birds to a level that would not be considered an Adverse Effect on Integrity ("AEoI").
NE21D – Cold weather construction restriction	Natural England advises that the effectiveness of the cold weather construction restriction should be included in the shadow HRA Appendix E Waterbird Mitigation Effectiveness Summary. Natural England also recommends that a more precautionary buffer distance should be used, for example 300 m, during very severe weather.	It remains the Applicant's view that the proposed mitigation (which includes a whole package of mitigation measures) will mitigate impacts of noise and visual disturbance from construction on SPA birds to a level that would not be considered an AEoI, as outlined in Appendix E of the Shadow HRA [REP4-014]. It is the Applicant's understanding that Natural England's advisors and case officers working on the Project are awaiting confirmation of Natural England's corporate position on this point. Natural England will provide an update in due course.
NE21E – Cold weather construction restriction	Natural England notes that "it is proposed that a temporary cessation of all construction activity within 200 m of Mean Low Water Springs is implemented following seven consecutive days of freezing (zero or sub-zero temperature) weather conditions."	The Applicant can confirm that the cold weather construction restriction would be based on records from a local weather station. It is the Applicant's understanding that Natural England's advisors and case officers working on the Project are awaiting





	Natural England would welcome confirmation that this would be based on records from a local weather station. Natural England recommends that a shorter period than 7 days of freezing conditions is used.	confirmation of Natural England's corporate position on this point. Natural England will provide an update in due course.
NE21F – The use of an Ecological Clerk of Works ("ECoW")	Further details should be provided regarding the role of the ECoW, such as how they will monitor and implement any required measures.	Further clarification is provided in the Applicant's response to Natural England's relevant representations [REP1-021]. The updated Shadow HRA [REP4-014] also includes this information where appropriate. Additional information has also been included in the Deemed Marine Licence ("DML") [REP4-004].
NE23 – Underwater noise and vibration during marine piling on qualifying species of marine mammals	Natural England is of the opinion that the production of an MMMP would be useful as the project includes non-standard mitigation i.e., cease piling if marine mammals are observed in the mitigation zone.	The mitigation for marine mammals is specified in the assessments and captured in both the Outline Construction Environmental Management Plan ("CEMP") [AS-043] and draft DML [REP4-004]. Therefore, the Applicant does not consider that a further plan is required.
NE29 – introduction of non-native species during operation	Natural England would encourage that an overall biosecurity management plan including the operational facility is produced and would welcome further discussion.	ABP's existing biosecurity management procedures will apply to the operational facility. These are explained in the Applicant's response to the ExA's written question Q1.6.6.1 which is set out in [REP1-027] and specifically Appendix 3 of the document which provides ABP Humber's Biosecurity Plan.
NE33B – Air quality impacts – marine vessels	Natural England advise that it is the role of the Planning Inspectorate to determine whether the maximum number of vessel movements is adequately secured, as these values are relied upon	The Applicant's position is that it is not necessary to impose such a restriction. This is explained in [REP2-





	in the HRA conclusions. Natural England would	013] (p. 4, NE33) in response to Natural England's
	welcome a Vessel Management and Monitoring Plan, to ensure that vessel movements remain within the assessed limits.	Deadline 1 submission. For context see also: • [REP1-026] WQ 1.5.2.7 • [REP1-027] WQ 1.6.2.3 • [REP1-032] WQ 1.11.2.1
		Requirements should only be imposed on a DCO which are "precise, enforceable, necessary, relevant to the development, relevant to planning and reasonable in all other respects". The need for future consents to facilitate the import/export of other liquid bulks other than ammonia means that any such requirement would – by definition – be unnecessary. Furthermore it was agreed that whether or not the assumed maximum number of vessel calls was secured was not germane to whether the HRA was robust, which assessed the worst case assumption of vessel calls to the jetty (average of 0.8 vessels per day), which is very small when considered in context with the baseline vessel movements within the Humber Estuary and in respect of which the assessment concludes no AEoI from the operational emissions of marine vessels on the protected sites and therefore no mitigation is required.
NE34 – Air quality impacts	Natural England welcomes the commitment in the Applicant's Comments on D1 Submissions from Natural England [REP2-013], to provide the source apportionment of site and vessel emissions to Project pollutant contributions, as reported in the	A Technical Note will be provided to Natural England, on air quality impacts broken down by site emissions sources and vessel emissions sources. The Applicant





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	Environmental Statement, in a Technical Note. Natural England will review the information when submitted. Natural England notes that information on potential emissions from flare stacks has not yet been provided in the HRA, and re-highlights that whilst Natural England note and accept the justification provided regarding flare stack modelling, this information should be incorporated into the HRA.	will continue to discuss this matter with Natural England. Information on potential emissions from flare stacks is provided in the Shadow HRA [REP4-014] at Paragraph 4.7.24.
NE42 – Turnstone sensitivity	Whilst turnstone have a low sensitivity to disturbance, there will be a threshold after which they will not be able to tolerate increased disturbance. Natural England consider that the potential impacts will be adequately minimised through the provision of suitable mitigation measures.	Noted. Sensitivity levels for ornithology receptors in the Shadow HRA [REP4-014] have been based on a range in sensitivity for individual species sensitivity levels (as highlighted in Table 26 for disturbance) or taking into account what the worst-case sensitivity is likely to be for relevant species on a precautionary basis. Consideration has been given to the most sensitive species within assessments. The proposed mitigation is also considered effective at minimising potential disturbance effects on Turnstone with no potential for AEoI on this feature.

ISH Action Point 5

Agenda Item 5 – Design, Landscape and Visual Effects

Provide updated draft DCO incorporating Design Code provisions.

An updated version of the dDCO reflecting hydrogen production facility design code provisions has been submitted at Deadline 5 [TR030008/APP/2.1(7)].





ISH Action Point 6

Agenda Item 5 - Design, Landscape and Visual Effects

Provide a note clarifying how the illustrations in REP4-047 were prepared, including accuracy particularly in relation to North Beck Energy, and how the illustrations should be used in understanding the scale of the Proposed Development.

Background

Issue Specific Hearing 5 ("ISH5") Action Point 4 was to "Submit analysis of the designs associated with extant planning permissions to understand how the Proposed Development relates in terms of scale and massing".

As explained at ISH8 Agenda Item 5.b [EV11-001], the purpose of submitting the details of major developments subject to extant planning permissions (referred to below as "proposed developments"), the key plan and the 'long-sections' (in [REP3-065] – with directions of view and a further 'long section' added at [REP4-047]) was to assist the panel in understanding the:

- Location of those proposed developments in the area in relation to the Project
- Scale (height and massing) of those proposed developments

<u>REP3-065</u> also contained further details of the individual proposed developments so that the nature of each new development as well as their scale can be contextualised alongside the images.

The purpose of this response to ISH8, Action Point 6 is to provide further clarity on the purpose of the images, the technical methodology employed in their production and a list of assumptions / exclusions, as well as to provide revised images, all with the aim of providing greater clarity.

Importantly, <u>REP3-065</u> and <u>REP4-047</u> described the images as 'Long-Sections'. As explained at ISH8, the Applicant believes that this description is potentially confusing since the images are not cross-sections but represent 'elevations' which are visible from a 'line of view'. In this note and in the updated figures, the images are now referred to as 'Elevations' since this more closely reflects how they have been produced.





Information Provided

<u>REP3-065</u> and <u>REP4-047</u> provided information in three ways, which used in combination enable the location, scale and massing of the proposed developments in the vicinity of the Project to be understood. These three elements are reviewed briefly below.

Descriptions of Proposed Developments

REP3-065 contained a description of each proposed development selected for inclusion on the Elevations. This information was obtained from the NELC Planning Portal. The maximum height of each proposed development is clearly stated within this document and summarised within Table 1 of Action Point 4 in REP3-065. Appendix 1 of this technical note provides a summary of the proposed developments, the maximum heights of each, and whether this has been included in the Cumulative Effects Analysis ("CEA") [APP-067] and updated at Deadline 5 as TR030008/APP/6.2 (2)] for the Project. In the case of some of the proposed developments the maximum height for the tallest part of the development is fixed, and in the case of other proposed developments a maximum parameter is set for the maximum height, but the final height of the development could be below this height. This is explained further in Appendix 1 for each proposed development.

Key Plan

A key plan, displaying four 'lines of view' was presented in **Appendix 2** of **REP3-065**. At the request of the Planning Inspectorate within **PD-014**, the key plan was revised to include a fifth line of view (ID 5), as well as arrows on the key plan displaying the direction of view for each line of view. This was presented within **Appendix 5** of **REP4-047**. This plan has been further amended at Deadline 5 to amend the title and key to refer to 'Elevations' and is provided in **Appendix 2 of this technical note**.

Images

Elevations from IDs 1–4(5), which each represent a 'line of view' and are indicated on the associated key plan, were provided within **Appendix 3** of **REP3-065** and were updated in **Appendix 6** of **REP4-047**. These Elevations seek to contextualise the scale and massing of the Project in a single plane, by showing the scale and massing of the Project and the relevant proposed developments identified in **Appendix 1**.





The Elevations were developed using the same software as the photomontages, Autodesk 3ds Max. The models supplied for the IGET development were accurately placed to the correct position and base level. The georeferenced site layout plans and georeferenced OS data were used as reference. The elevation for the IGET development is based on an illustrative model and not the maximum parameters sought by way of the DCO.

The parameters for the other proposed developments were determined from details on the Planning Portal and included the development locations, stack locations (as relevant) and the maximum heights (as explained above) for each. The ground level for each proposed development was either taken from the information contained within the public domain or (in the absence of this information) an assumption made. The lines of view were set up as orthographic cameras, positioned as required and cutting a view through the models at each line of view indicated on the key plan.

As explained at ISH8, the Elevations do not account for distance relative to the line of view and so are not the equivalent of wire-framed photomontages. In simple terms, the Elevations line up the relevant proposed developments for a particular ID in a row from west to east, along the 'line of view', relative to their geographic location and present the consented scale and massing for each development.

Following ISH8, each Elevation has been updated in this document, to provide greater clarity, noting that there was some concern as to whether the relative sizing of the proposed developments was correct. In order to do this, 20m bands have been added to the images to enable approximate heights of each proposed development to be estimated and cross-checked with the individual details for each development. Each of the development maximum heights, including that for North Beck Energy (DM/0026/18/FUL, see below) which was referenced at ISH8, have been re-checked and the Applicant can confirm that the maximum heights shown on the images are correct. The updated elevations, including the 20m bands, are provided in **Appendix 3 of this technical note**.

As the Elevations focus on proposed developments only, no existing developments are shown; for example, the Knauf facility on Queens Road and the Polynt, Tronox and Air Products works along Laporte Road are not shown. Therefore, to some extent, the Elevations understate the future context as very large facilities already in place are excluded but will still be present. Including existing developments in these images would be a more complex exercise as they would need to be modelled or imaged in some way, with the information generally not readily available within the public domain.

ISH Action Point 7

Agenda Item 5 - Design, Landscape and Visual Effects





Provide amended oDEMP to clarify position on additional planting and oLEMP reference.

The Outline Decommissioning Environmental Management Plan ("oDEMP") has been updated at Deadline 5 to update Table 6: Landscape and Visual Impact. The update to Table 6 clarifies the position on planting (removing reference to 'other landscape features') and adds a reference to make it clear that it is the tree and woodland plantings to be approved under a Requirement of the dDCO [TR030008/APP/2.1(7)] in general accordance with the principles contained in the Outline Landscape and Ecology Management Plan [REP4-012] which are being referred to.

ISH Action Point 8

Agenda Item 6 - Major Accidents and Hazards

Provide a note on COMAH regulations and how the associated regime operates.

OVERVIEW OF KEY REGULATIONS

1. OVERVIEW

- 1.1. The Control of Major Accident Hazards Regulations 2015 ("COMAH Regulations") impose requirements with respect to the control of major accident hazards involving dangerous substances.
- 1.2. This note provides a brief overview of the key regulations as relevant to the Immingham Green Energy Terminal and associated development ("the Project").

2. ESTABLISHMENTS AND COMPETENT AUTHORITY

2.1. The COMAH Regulations (under Regulation 3) apply to any establishment under the control of an operator where a dangerous substance is present in a quantity equal to or in excess of the quantities listed for particular substances in Schedule 1 of the COMAH Regulations. An establishment may be lower tier or upper tier, depending on the quantities of dangerous substances present.





- 2.2. The 'operator' is the person who is in control of the operation of an establishment, or where an establishment is yet to be constructed or operated, the person who proposes to control its operation (or if that person is not known, the person who has commissioned its design and construction).
- 2.3. The COMAH Regulations are enforced by the 'competent authority', being (for the purposes of the Project) the 'appropriate agency' which in England is the Environment Agency and the Health and Safety Executive ("HSE") acting jointly (Regulation 4).

3. GENERAL DUTIES OF ALL OPERATORS

- 3.1. Regulation 5 requires all operators to:
 - 3.1.1. "take all measures necessary to prevent major accidents and to limit their consequences for human health and the environment" (Regulation 5(1));
 - 3.1.2. "demonstrate to the competent authority that it has taken all measures necessary" as specified in the COMAH Regulations (Regulation 5(2));
 - 3.1.3. "provide the competent authority with such assistance as is necessary to enable the competent authority to perform its functions" (Regulation 5(3)) including assistance to enable it to carry out inspections and investigations and gather any necessary information (Regulation 5(4)).
- 3.2. A major accident is defined in the COMAH Regulations as "an occurrence such as a major emission, fire, or explosion resulting from uncontrolled developments in the course of the operation of any establishment to which these Regulations apply, and leading to serious danger to human health or the environment (whether immediate or delayed) inside or outside the establishment, and involving one or more dangerous substances".
- 3.3. HSE Guidance entitled The Control of Major Accident Hazards Regulations 2015 Guidance on Regulations (L111 (Third edition) published 2015) ("HSE Guidance") explains as follows.
 - 3.3.1. In judging how the duty in Regulation 5(1) should be complied with, the competent authority recognises that "risk cannot be completely eliminated and there should be some proportionality between the risk and the measures taken to control the risk. The competent authority will make a judgement about whether a preventive or mitigation measure is necessary in relation to the major hazard and the risk the measure addresses." (Paragraph 80)
 - 3.3.2. "Prevention should be considered in a hierarchy based on the principles of reducing risk to a level as low as reasonably practicable (ALARP). The ideal should always be to avoid a hazard altogether." (Paragraph 81)





- 3.3.3. "Relevant good practice should be adopted as a minimum and you should then firstly consider: 'What more can I do to reduce the risks?' And, secondly, explain: 'Why have I not done it?' Good practice represents a consensus between regulators, technical experts, duty holders and other stakeholders on what constitutes proportionate action to control a given hazard. Among other things it takes account of what is technically feasible and the balance between the costs and benefits of the measures taken." (Paragraph 84)
- 3.3.4. "The findings of a risk assessment carried out to comply with regulation 5(1) (as well as the general regulation 3 requirement for risk assessment of the Management of Health and Safety at Work Regulations 1999 (MHSWR), and similar requirements in environmental legislation), together with the appropriate preventative and mitigation measures will usually provide sufficient evidence to demonstrate safe operation." (Paragraph 92)

4. NOTIFICATIONS

- 4.1. Regulation 6 requires certain notifications to be made to the competent authority within a reasonable period of time prior to the start of construction and of operation.
- 4.2. The notifications relate to the provision of information such as operator details; the substances present; the activities intended; and a description of the immediate environment and factors likely to cause or aggravate the consequences of a major accident including details of neighbouring establishments, operations not regulated by COMAH and areas and developments that could be the source of or increase the risk or consequences of a major accident and of domino effects.

5. MAJOR ACCIDENT PREVENTION POLICIES

- 5.1. Every operator must prepare and retain a written major accident prevention policy ("MAPP") (Regulation 7).
- 5.2. The MAPP must be: "(a) designed to ensure a high level of protection of human health and the environment; (b) be proportionate to the major accident hazards; (c) set out the operator's overall aims and principles of action; and (d) set out the role and responsibility of management, and its commitment towards continuously improving the control of major accident hazards".
- 5.3. For new establishments, the MAPP must be prepared within a reasonable period of time prior to construction or operation. The MAPP must be reviewed every five years. In addition, in the event of a significant increase or decrease in the quantity of dangerous substances or a change in the nature or physical form of the dangerous substances or the processes employing them which could have significant consequences in terms of major accident hazards, it must be reviewed immediately.
- 5.4. Under Regulation 7(7), the MAPP must be implemented by way of a safety management system ("SMS") (which must satisfy Schedule 2 of the COMAH Regulations) covering for example in relation to operational control:





- 5.4.1. "the adoption and implementation of procedures and instructions for safe operation, including maintenance, of plant, processes and equipment, and for alarm management and temporary stoppages,"
- 5.4.2. "the taking into account of available information on best practices for monitoring and control, with a view to reducing risk of system failure;"
- 5.4.3. "the management and control of the risks associated with ageing equipment installed in the establishment and its corrosion;"
- 5.4.4. "the inventory of the establishment's equipment, and the strategy and methodology for the monitoring and control of the condition of the equipment;" and
- 5.4.5. "appropriate follow up actions and any necessary counter-measures".

6. SAFETY REPORTS

- 6.1. Upper tier establishments must prepare a safety report (Regulation 9(2)) within a "reasonable period of time prior to":
 - 6.1.1. "the start of construction of the establishment;"
 - 6.1.2. "the start of operation of the establishment;" and
 - 6.1.3. "any modifications leading to a change in the inventory of dangerous substances at the establishment."
- 6.2. The competent authority must "within a reasonable period of time following receipt of a safety report" (Regulation 22) either:
 - 6.2.1. "communicate the conclusions of its examination of that safety report to the operator of the establishment; or"
 - 6.2.2. "if necessary prohibit the bringing into operation, or continued operation, of the establishment, or any part of it, in accordance with regulation 23" (see **Section 10** below).
- 6.3. Under Regulation 9(7), an operator must not start construction, start operation or modify the dangerous substances (as applicable) "until it has received from the competent authority the conclusions of the competent authority's examination of the safety report under regulation 22".
- 6.4. The purpose of the safety report (Regulation 8) is for:
 - 6.4.1. "demonstrating that a [MAPP and SMS] for implementing it have been put into effect in accordance with the details in Schedule 3:"
 - 6.4.2. "demonstrating that the major accident hazards and possible major accident scenarios in relation to the establishment have been identified and that the necessary measures have been taken to prevent such accidents and to limit their consequences for human health and the environment:"





- 6.4.3. "demonstrating that adequate safety and reliability have been taken into account in the design, construction, operation and maintenance of any installation, storage facility, equipment and infrastructure connected with the establishment's operation which are linked to major accident hazards inside the establishment;"
- 6.4.4. "demonstrating that an internal emergency plan has been prepared (in accordance with regulation 12) which includes sufficient information to enable an external emergency plan to be prepared;"
- 6.4.5. "providing sufficient information to the competent authority to enable decisions to be made regarding the siting of new activities or developments around establishments."
- 6.5. Safety reports must contain the information set out in Schedule 3 including:
 - 6.5.1. the identification of neighbouring establishments (including sites that fall outside the scope of the COMAH Regulations), areas and developments that "could be the source of, or increase the risk or consequences of a major accident and of domino effects;"
 - 6.5.2. "a detailed description of the possible major accident scenarios and their probability" including external causes such as domino effects; and
 - 6.5.3. "measures of protection and intervention to limit the consequences of a major accident".
- 6.6. HSE Guidance states (Paragraph 145) "You must identify all major accident hazards and present a representative set of reasonably foreseeable major accident scenarios. Reference should be made to hazard identification and risk assessment techniques used. Your demonstration should provide a clear link between the various major accident scenarios identified and the measures which are in place to defend against them. The safety report should show how the necessary measures will prevent foreseeable failures which could lead to major accidents, and to limit the consequences of any that do occur. There should also be a clear link to the SMS."
- 6.7. Operators must review and where necessary revise their safety reports every five years (subject to certain provisions Regulations 9 and 10). However, COMAH Regulation 10(2) also requires review (and potential revision):
 - 6.7.1. "following a major accident at the establishment;"
 - 6.7.2. "where a review is justified by new facts or by technological knowledge about safety matters, including knowledge arising from analysis of accidents or near misses;"
 - 6.7.3. "where a review is justified by developments in knowledge concerning the assessment of hazards;"
 - 6.7.4. "before making any modifications to the establishment, process or dangerous substances which could have significant consequences for major accident hazards;"





- 6.7.5. "following any change to the [SMS] which could have significant consequences for the prevention of major accidents or the limitation of the consequences of major accidents to human health and the environment."
- 6.8. A revised safety report must be sent by the operator to the competent authority without delay (and in advance of any proposed modification where applicable). Where a safety report has been reviewed, but not revised, the operator must inform the competent authority in writing without delay.

7. EMERGENCY PLANS

- 7.1. Regulation 11 sets the objectives of emergency plans (internal and external) as:
 - 7.1.1. "containing and controlling incidents so as to minimise the consequences, and to limit damage to human health, the environment and property;"
 - 7.1.2. "implementing the necessary measures to protect human health and the environment from the consequences of major accidents;"
 - 7.1.3. "communicating the necessary information to the public and to the services or authorities concerned in the area; and"
 - 7.1.4. "providing for the restoration and clean up of the environment following a major accident."
- 7.2. The operator of new establishments must prepare an internal emergency plan "within a reasonable period of time prior to the start of operation of the establishment or any modifications leading to a change in the inventory of dangerous substances at the establishment" (Regulation 12). This must specify the measures to be taken inside the establishment (including such matters set out in Part 1 of Schedule 4) and be prepared in consultation with those listed in COMAH Regulation 12(5) (including persons working in the establishment, Environment Agency, emergency services, health authority, NHS England and local authority).
- 7.3. The internal emergency plan is to be reviewed and where necessary revised and tested every three years (as a minimum). In doing so, the operator must take into account any changes at the establishment (or within the emergency services concerned), any relevant new technical knowledge, and any relevant new knowledge concerning the response to major accidents.
- 7.4. A local authority whose administrative area includes an upper tier establishment must prepare an external emergency plan (save for where an exemption has been granted under COMAH Regulation 15).
- 7.5. The external emergency plan must be prepared no later than six months (or longer period of up to nine months if the competent authority agrees) after receipt of the necessary information from the operator (which the operator is obliged to provide before the date on which the internal emergency plan is required to be prepared under Regulation 12(2)) (Regulation 13).





- 7.6. The external emergency plan must specify the measures to be taken outside the establishment (including matters set out in Part 2 of Schedule 4) and be prepared in consultation with those listed in Regulation 13(7) including such members of the public and other persons as it considers appropriate. The matters in Part 2 of Schedule 4 include matters intended to ensure coordinated response in the event of an accident, i.e. arrangements for coordinating resources, providing public information, etc. The external emergency plan is to be reviewed and where necessary revised and tested every three years (as a minimum).
- 7.7. An operator / local authority which has prepared an internal / external emergency plan must take reasonable steps to ensure it is put into effect without delay if a major accident occurs or an uncontrollable event occurs which could reasonably be expected to lead to a major accident (Regulation 16).

8. INFORMATION

- 8.1. Regulation 17 requires the competent authority to make certain information available to the public including details of activities undertaken and hazard classifications of dangerous substances. For upper tier facilities, additional information must be made available including general information relating to the nature of the major accident hazards, including their potential consequences on human health and the environment, summary details of the main types of major accident scenarios and the control measures to address them. Operators are under a continuing duty to provide the competent authority with information and revisions to the information when necessary.
- 8.2. Regulation 18 requires operators of upper tier facilities to ensure that the following are sent clear and intelligible information on safety measures and requisite behaviour in the event of a major accident at the establishment:
 - 8.2.1. "every person who is likely to be in the area ... notified to the operator by the competent authority as being the area within which, in the opinion of the competent authority, persons are liable to be affected by a major accident occurring at the establishment" and
 - 8.2.2. "every school, hospital or other area of public use" which is in that area.
- 8.3. This information is to be kept under review at intervals not exceeding three years as a minimum and "in the event of any modification of the establishment or an installation which could have significant consequences in terms of major accident hazards".

9. DOMINO GROUPS

9.1. The competent authority must identify groups of establishments (domino groups) under Regulation 24 where the risk or consequences of a major accident may be increased because of "the (a) geographical position of establishments; (b) proximity of





- establishments to each other; or (c) inventories of dangerous substances held by establishments". A 'domino effect' means the increase in the risk or consequences of a major accident because of one or more of those factors.
- 9.2. Where the competent authority identifies a domino group, it must notify each operator of an establishment in that group of the name of the operator and full address of each of the establishments within the group.
- 9.3. Where the competent authority has information (in addition to that provided by any operator forming part of a domino group) "about the immediate environment of the establishment, or factors which are likely to cause a major accident or to aggravate the consequences of a major accident, including (a) details of neighbouring establishments; (b) sites of operation that fall outside the scope of [the] Regulations; or (c) areas and developments that could be the source of or increase the risk or consequences of a major accident and of domino effects, the competent authority must provide that information to each operator of an establishment in that group" (Regulation 24(5)).
- 9.4. Regulation 24(7) requires operators in a domino group to, using any information received from the competent authority as above, co-operate with the other operators within the domino group in:
 - 9.4.1. "putting in place arrangements for the exchange of suitable information with each other so as to enable them to take into account the nature and extent of the major accident hazards" in its MAPP, SMS, safety report, internal emergency plan and provision of information to persons likely to be affected by a major accident under Regulation 18;
 - 9.4.2. "informing neighbouring sites to which the Regulations do not apply of their proximity to a domino group and in appropriate cases to provide suitable information to those sites;"
 - 9.4.3. preparing information for the competent authority (to be made available to the public) under Regulation 17; and
 - 9.4.4. "supplying the local authority with information relevant for the purposes of preparing an external emergency plan".

10. PROHIBITION OF OPERATION

- 10.1. Under Regulation 23(1), the competent authority "must prohibit" (by notice) the operation or bringing into operation of any establishment (or part), etc., where "the measures taken by the operator for the prevention and mitigation of major accidents are seriously deficient".
- 10.2. In considering whether "the measures taken by the operator for the prevention and mitigation of major accidents are seriously deficient, the competent authority must, amongst other matters, take into account any serious failures by the operator to take the necessary actions identified by the competent authority in a communication sent to the operator under regulation 25(9)(a)".
- 10.3. There are provisions for appeal against such notices (under the Health and Safety at Work etc Act 1974).





11.OTHER ENFORCEMENT POWERS

- 11.1. Regulation 25 requires the competent authority to organise a system of inspections of establishments including an inspection plan and routine inspection of all establishments.
- 11.2. Under Regulation 27, specified enforcement provisions of the health and safety legislation apply to establishments or operators caught by the COMAH Regulations. Inspectors (carrying out the HSE's enforcement functions) are given broad powers of entry, investigation and to require information, etc. They may serve improvement notices if they are of the opinion that there are contraventions of the COMAH Regulations, requiring a remedy within a certain timeframe. Offences apply.





2. Appendices to the Applicant's Response to the Examining Authority's Action Points from Issue Specific Hearing 8 (ISH8)

Appendix 1: Tabular Summary of the Proposed Developments

Proposed Development	Planning Application information	Included in CEA?
The North Beck Energy Recovery Facility on land south of Queens Road, Immingham	https://planninganddevelopment.nelincs.gov.uk/online-applications/applicationDetails.do?keyVal=P2C4HALJ02B00&activeTab=summary The following is extracted from the application's Environmental Statement Non-Technical Summary:	Yes – ID 18
DM/0026/18/FUL	"The stack (chimney) would be located adjacent to the western elevation of the main building and would be 90m in height (92.5m AOD) and 8.2m in diameter." and "The highest section of the main building, towards the middle, would be 48m high (52.3m AOD)"	
Waste to energy generation facility at the Immingham Rail Freight Terminal on	https://planninganddevelopment.nelincs.gov.uk/online- applications/applicationDetails.do?keyVal=PCFBTYLJHHS00&activeTab= summary	Yes – ID 13
Scandinavian Way, Immingham	The following is extracted from the application's Environmental Statement Non-Technical Summary:	
	"The detailed Air Quality Assessment presented in Chapter 8 of the ES concludes that when discharging through chimneys which are 65 metres	





Proposed Development	Planning Application inf	ormation	Included in CEA?
DM/0628/18/FUL	in height, the Process Contributions from the Proposed Development and other pollutant emissions associated with the vehicle movements for the site operations are very small, termed 'negligible to slight adverse'." and "The main process building, which varies in height from 14.86 m to 29.74 m (at eves), is located to the north."		the and
The South Humber Bank Power Station on land at Hobson Way, Immingham DM/1070/18/FUL	https://planninganddevelorapplications/applicationDesummary The Environmental Statendesign parameters (Table for the stack height is 102	um ure	
	COMPONENT	DIMENSIONS	
	Main building maximum height	59 m AOD (including 2 m parapet wall on boiler house)	
	Main building maximum footprint		
	Stack height		
	Stack diameter		
	Bunker base maximum depth -8 mAOD		





Proposed Development	Planning Application information	Included in CEA?
The Velocys sustainable transport fuels facility on land at Hobson Way, Immingham DM/0664/19/FUL	https://planninganddevelopment.nelincs.gov.uk/online-applications/applicationDetails.do?keyVal=PUW79ZLJH1F00&activeTab=summary This proposed development is shown on the Elevations as a tall block of 80m, representing the main stack, flare tower and main gasification building which vary between 68mAOD and 82mAOD. There are a number of lower stacks which have been denoted on the Elevations, up to a height of 72mAOD; these are represented as smaller towers, protruding out of the lower yellow block. A lower block is presented on the Elevations which represents the other peripheral buildings, structures and stacks; these are of various heights. These have been presented on the Elevations as a lower block of 38m, which is intended as a catch-all for the lower level buildings.	Yes – ID 116
Stallingborough Interchange Business Park on land off Kiln Lane	https://planninganddevelopment.nelincs.gov.uk/online- applications/applicationDetails.do?keyVal=P3F907LJI1400&activeTab=su mmary The Environmental Statement (Chapter 3, Section 3.2) states as follows:	Yes – ID 3
DM/0105/18/FUL	"For assessment purposes, a maximum height of any building has been assumed to be 20m."	



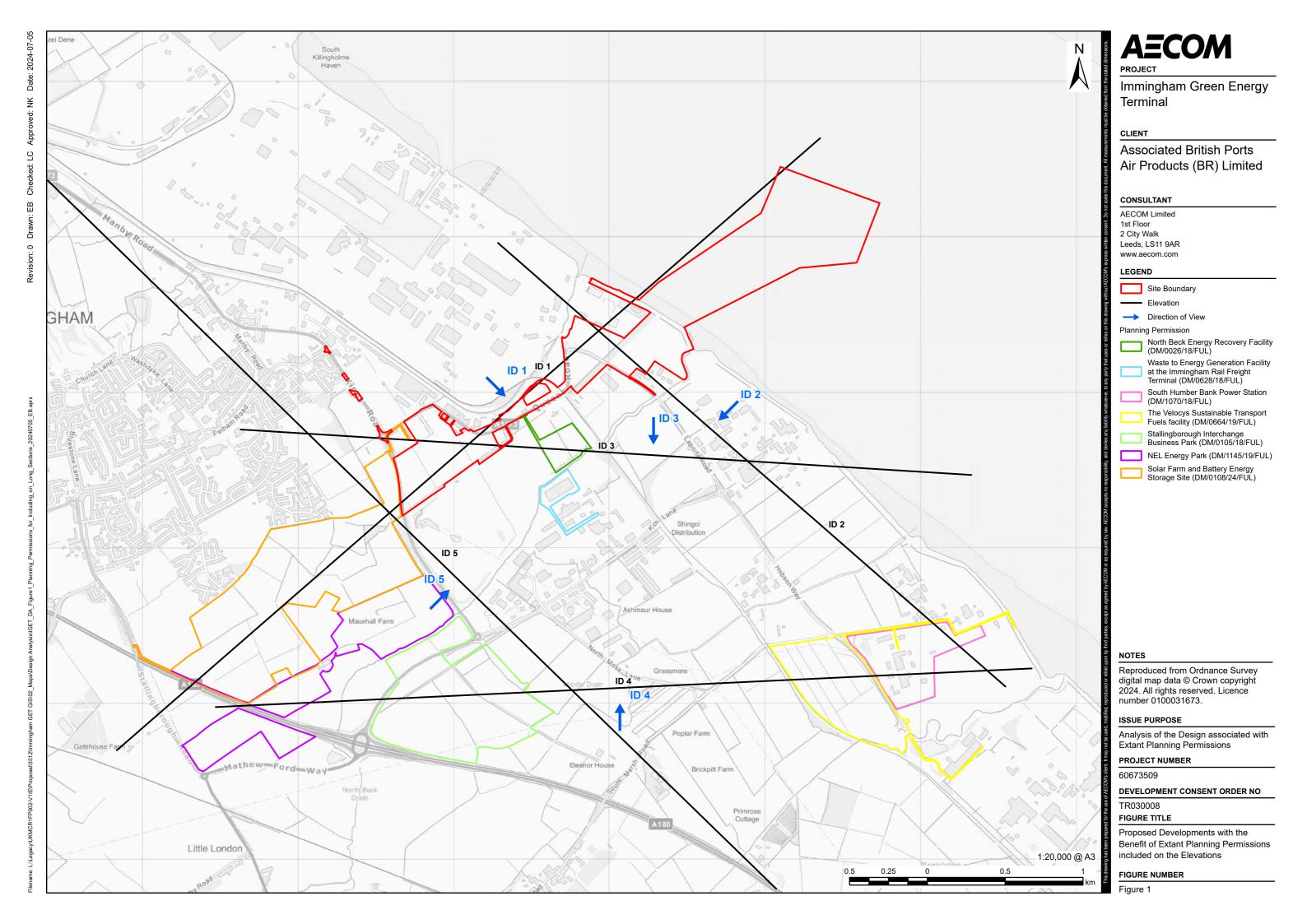


Proposed Development	Planning Application information	Included in CEA?
NEL Energy Park on land at Mauxhall Farm, Immingham	https://planninganddevelopment.nelincs.gov.uk/online- applications/applicationDetails.do?keyVal=Q2NNMRLJFLQ00&activeTab =summary	Yes – ID 1
DM/1145/19/FUL	The Planning Statement (Page 31) states as follows: "Substation: length 22m x depth 5.5m x height to ridgeline 4.9m"	
Solar Farm and battery energy storage site on land off Margaret Street, Immingham	https://planninganddevelopment.nelincs.gov.uk/online-applications/applicationDetails.do?activeTab=summary&keyVal=S830OALJLYB00	Yes (ID 124) – Included in Deadline 5 update of the CEA.
DM/0108/24/FUL	The drawing "Proposed BESS Layout", contains a drawing of the 132.33kV substation, with an approximate maximum height to ground of 6.5m as presented below:	
	6 ELEVATIONS - ELECTRICAL COMPONENTS 132/33 kV SUBSTATION SCALE: 1:200	
	APROX. MAXIMUM HEIGHT TO GROUND: 6.5 M 132/33 kV TRANSFORMER (TX) Q Q 99 Q W	
	65 55 45 40 1.8 FLOOD LEVEL MIN. GROUND CLEARANCE MIN. CLEARANCE TO LIVE METAL LOW BAR	





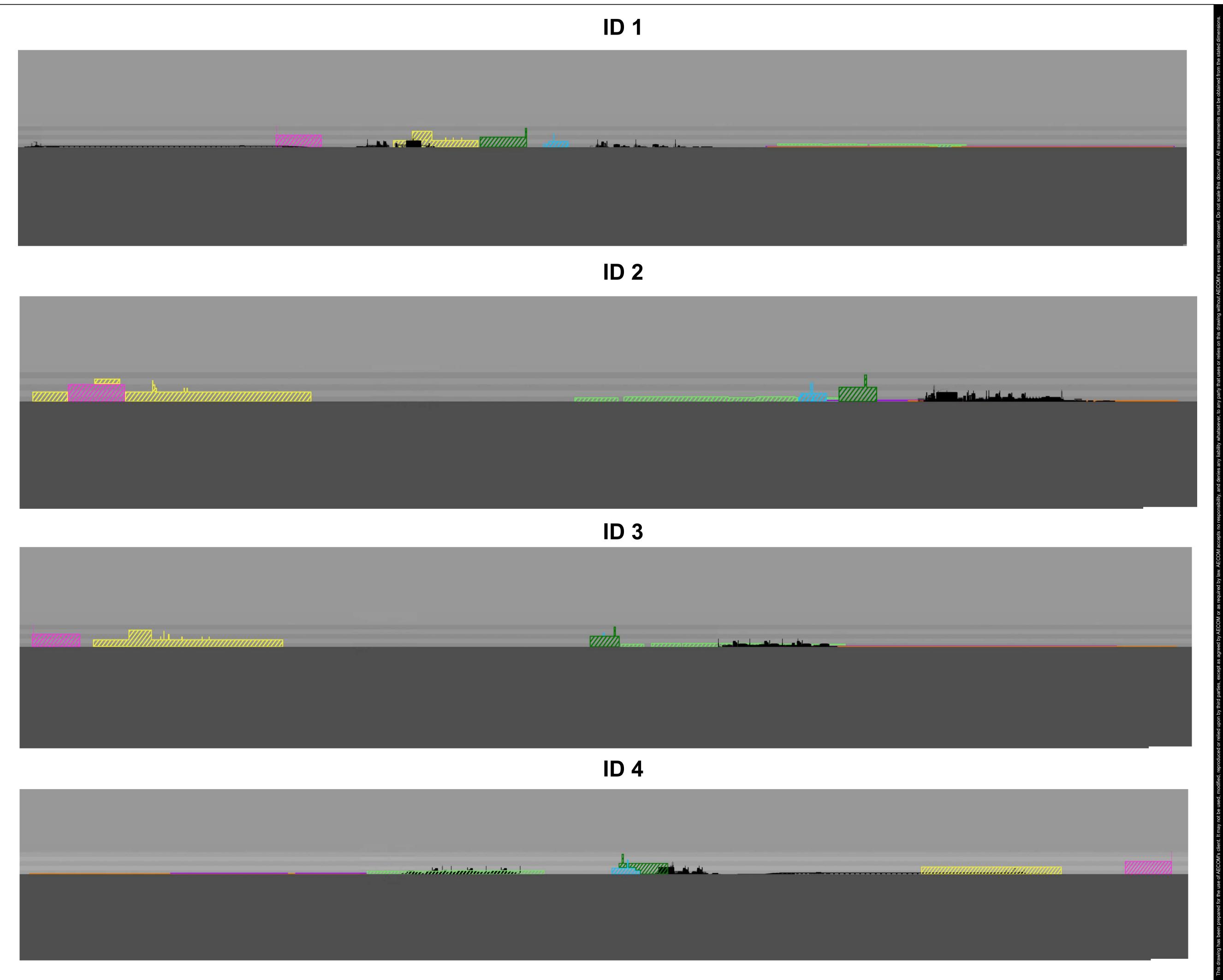
Appendix 2: IGET DA Figure 1 – Planning Permissions for Including on Elevations







Appendix 3: IGET DA Figure 2 – Elevations



AECOM

PROJECT

Immingham Green Energy Terminal

CLIENT

Associated British Ports Air Products (BR) Limited

CONSULTANT

AECOM Limited 1st Floor 2 City Walk Leeds, LS11 9AR www.aecom.com

LEGEND

Planning Permission

(DM/1070/18/FUL)

North Beck Energy Recovery Facility (DM/0026/18/FUL)

Waste to Energy Generation Facility at the Immingham Rail Freight Terminal (DM/0628/18/FUL)

South Humber Bank Power Station

The Velocys Sustainable Transport Fuels facility (DM/0664/19/FUL)

Stallingborough Interchange

Stallingborough Interchange
Business Park (DM/0105/18/FUL)

NEL Energy Park (DM/1145/19/FUL)

Solar Farm and Battery Energy Storage Site (DM/0108/24/FUL)

NOTES

The black buildings denote the Immingham Green Energy Terminal project

ISSUE PURPOSE

Analysis of the Design associated with Extant Planning Permissions

PROJECT NUMBER

60673509

DEVELOPMENT CONSENT ORDER NO

TR030008

FIGURE TITLE

Elevations - Sheet 1 of 2

FIGURE NUMBER

Figure 2

ID 5



AECOM

Immingham Green Energy Terminal

CLIENT

Associated British Ports Air Products (BR) Limited

CONSULTANT

AECOM Limited 1st Floor 2 City Walk Leeds, LS11 9AR www.aecom.com

LEGEND

Planning Permission

North Beck Energy Recovery Facility (DM/0026/18/FUL) Waste to Energy Generation Facility at the Immingham Rail Freight Terminal (DM/0628/18/FUL)

South Humber Bank Power Station (DM/1070/18/FUL) The Velocys Sustainable Transport Fuels facility (DM/0664/19/FUL)

Stallingborough Interchange Business Park (DM/0105/18/FUL)

NEL Energy Park (DM/1145/19/FUL)

Solar Farm and Battery Energy Storage Site (DM/0108/24/FUL)

The black buildings denote the **Immingham Green Energy Terminal**

ISSUE PURPOSE

Analysis of the Design associated with Extant Planning Permissions

PROJECT NUMBER

60673509

DEVELOPMENT CONSENT ORDER NO

TR030008

FIGURE TITLE

Elevations - Sheet 2 of 2

FIGURE NUMBER

Figure 2