



APPLICANT'S RESPONSES TO EXAMINING AUTHORITY'S FIRST WRITTEN QUESTIONS

Drax Bioenergy with Carbon Capture and Storage

Infrastructure Planning (Examination Procedure) Rules 2010, Rule 8(1)(b); Planning Act 2008;
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AUTHOR: Various

APPROVER: C. Fountain

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- Appendix 2: Extract of CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland
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- Appendix 3: Highways Technical Note (document reference: 8.9.3)
- Appendix 4: Note in relation to WQ EN1.8 25 Year Design Life (document reference: 8.9.4)
- Appendix 5: Air Quality Technical Note 2 (document reference: 8.9.5)
- Appendix 6: Drax Power Station Environmental Permit (document reference: 8.9.6)

INTRODUCTION

1.1. PURPOSE OF THIS DOCUMENT

- 1.1.1. On 23 May 2022, Drax Power Limited ("the Applicant") made an application ("the Application") for a Development Consent Order (DCO) to the Secretary of State for Business, Energy and Industrial Strategy ("the SoS"). The Application relates to the Drax Bioenergy with Carbon Capture and Storage (BECCS) Project ("the Proposed Scheme") which is described in detail in Chapter 2 (Site and Project Description) of the Environmental Statement (ES) (APP-038).
- 1.1.2. The Application was accepted for Examination on 20 June 2022.
- 1.1.3. This document, submitted at Deadline 2 of the Examination, contains the Applicant's responses to the Examining Authority's (ExA) First Written Questions, issued by the ExA on 24 January 2023.
- 1.1.4. This document follows the same order as the First Written Questions issued by the ExA.
- 1.1.5. At Deadline 2 the Applicant has submitted new or revised versions of documents submitted with the Application. These documents are referred to where relevant in the responses to the written questions in this document.

1. GENERAL AND CROSS-TOPIC QUESTIONS

Table 1.1 – General and Cross-Topic Questions

ExA Ref.	Addressed to	Question	Applicant's Response
EN1.1	Applicant/ ERYC/ NYCC	<p>i. Please submit into the Examination full copies of any Development Plan policies that you have referred to in any of your submissions. Should you refer to any additional Development Plan policies at any time in your future submissions (for example in an LIR) then, if they have not already been provided, please also submit copies of these into the Examination.</p> <p>ii. Have there been any relevant updates to the statutory Development Plan since the compilation of the application documents?</p> <p>iii. Are the LPAs content with the Applicant's policy analysis?</p>	<p>i. The Applicant submits into the Examination at Deadline 2 the following documents which contain the full copies of Development Plan policies referred to in our submissions to date:</p> <ul style="list-style-type: none"> Selby District Local Plan (2005) – The Applicant submits Selby District Local Plan - Part 1 (General Policies), and not Part 2 (Detailed Policies and Proposal) or Part 3 (Proposals Map and Inset Maps) on the basis that these do not include policies of relevance; Selby District Core Strategy Local Plan (2013); and North Yorkshire Minerals and Waste Joint Plan (NYCC, 2022). <p>The Applicant can confirm that, should any additional Development Plan policies be referred to at any time in future submissions, the Applicant will submit copies of these into the Examination.</p> <p>ii. Yes, there have been relevant updates to the statutory Development Plan since the compilation of the application documents.</p> <p>Following the compilation of the application documents, Selby District Council have published the Publication Local Plan for consultation between 26 August 2022 and 28 October 2022. The Applicant submits this document into the Examination.</p> <p>With the document still in the early stages of preparation, it is still subject to change, and therefore the Applicant considers its draft policies should be afforded limited weight in the assessment of the Application. As the document constitutes a draft iteration of part of the secondary planning policy framework, the Applicant does not consider it necessary to undertake a detailed planning policy assessment of the Proposed Scheme against the draft policies. However, the document does set out the council's intended changes in planning policy direction and may therefore constitute an important and relevant consideration in the ExA's consideration of the application. As such, the Applicant has undertaken a high-level analysis of the document in relation to the Proposed Scheme, which is provided in a Planning Statement Addendum (document reference 5.2.1), which we submit at Deadline 2, and should be read alongside the originally submitted Planning Statement (APP-032).</p> <p>Furthermore, as a result of the Proposed Change 2, the East Riding of Yorkshire is now a host authority, whereas it was previously a neighbouring authority. As such, the Planning Statement Addendum (document reference 5.2.1) includes a planning policy assessment of the relevant components of the Proposed Scheme within the authority of the East Riding of Yorkshire against the relevant policies of the development plan.</p> <p>The Applicant therefore also submits into the Examination at Deadline 2 the following document which contains the full copies of East Riding of Yorkshire's Development Plan policies referred to in this additional submission:</p> <ul style="list-style-type: none"> Strategy Document (adopted April 2016). <p>Neither the East Riding of Yorkshire Allocations Document (adopted July 2016), which allocates sites for development, nor the Bridlington Town Centre Area Action Plan (AAP, adopted 2013) are of relevance to this application.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			iii. The Applicant notes that the LPAs are to provide a response to this question. However, the Applicant can confirm that the Statement of Common Ground between Selby District Council, North Yorkshire County Council and Drax Power Limited - Rev 2, submitted at Deadline 1 (REP-018) and Selby District Council and North Yorkshire County Council's Local Impact Report (REP-039) state that the LPAs consider the proposal is policy compliant. Whilst the planning policy assessment of the Proposed Scheme against the relevant development plan for East Riding of Yorkshire Council is submitted at this point and has not been seen by East Riding of Yorkshire Council, the Applicant notes that the Statement of Common Ground between East Riding of Yorkshire Council and Drax Power Limited - Rev 2, submitted at Deadline 1 (REP-023) confirms that the LPAs have no comments to make in regard to local planning policy.
EN1.2	Applicant	Please could the Applicant state whether the short list of developments for the cumulative assessment was agreed with relevant consultees.	<p>As detailed in Table 18.1 of ES Chapter 18 (Cumulative Effects) (APP-054, Rev02 submitted at Deadline 2), Appendix 18.2 (Short List of Other Developments) (AS-013, Rev03 submitted at Deadline 2) has been agreed with relevant consultees as follows: Doncaster Council, East Riding of Yorkshire Council and Selby District Council. No formal comment was received from North Yorkshire County Council at the time of submission, however, as detailed in Table 4.17 of the- Statement of Common Ground (SoCG) with Selby District Council and North Yorkshire County Council (REP-018) this has been confirmed as agreed.</p> <p>An updated short list was sent out to the same consultees listed above on 23 January 2023. East Riding of Yorkshire Council has confirmed the proposed applications are acceptable. No other responses have been received to date. Further information can be found in Table 18.1 of the updated version of Chapter 18 (Cumulative Assessment) submitted at Deadline 2 (APP-054, Rev02).</p>
EN1.3	Applicant	R14 of the dDCO [AS-076] requires that a CEMP is submitted to and approved by the LPA prior to works commencing on-site. Can the Applicant submit an outline CEMP into the Examination which includes outline versions of the soil handling management plan, site waste management plan, stakeholder communication plan, materials management plan, surface water management plan and the invasive species strategy. If this cannot be submitted, please explain why.	<p>As detailed in Appendix 1 of the Summary of Oral Case at Issue Specific Hearing 2 (ISH2) (REP-029) submitted at Deadline 1 the Applicant is not intending to submit an outline CEMP into the Examination which includes outline versions of the soil handling management plan, site waste management plan, stakeholder communication plan, materials management plan, surface water management plan and the invasive species strategy.</p> <p>The Applicant considers that the purpose of an Outline CEMP has been fulfilled through the Register of Environmental Actions and Commitments (REAC) (REP-015, Rev05 submitted at Deadline 2) which is considered to be proportionate and sufficient to mitigate and manage the environmental effects of the Proposed Scheme, and the measures within which are secured via the draft Development Consent Order. For further explanation refer to Appendix 1 of the Summary of Oral Case at Issue Specific Hearing 2 (ISH2) (REP-029).</p>
EN1.4	EA/ NE/ NYCC/ SDC	Are you satisfied that the list of plans outlined in the REAC, to be included in the CEMP, is complete? Would you expect any further plans to be listed? Would you expect to see any outline plans at this stage?	<p>As detailed within the Register of Environmental Actions and Commitments (REAC) (REP-015, Rev05 submitted at Deadline 2) paragraph 1.1.4 the following plans will be included in the CEMP, which is secured via the draft Development Consent Order Schedule 2 (14), for the Proposed Scheme:</p> <ol style="list-style-type: none"> a. Materials Management Plan (as an appendix to the CEMP) b. Stakeholder Communication Plan c. Invasive Species Strategy d. Soils Handling Management Plan e. Surface Water Management Plan f. Site Waste Management Plan

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			<p>These plans have been identified through the environmental impact assessment as being required to mitigate effects of the Proposed Scheme. Paragraph 1.1.5 includes other plans that will be produced for the Proposed Scheme but will not be included within the CEMP as follows:</p> <ol style="list-style-type: none"> Lighting Strategy Construction Traffic Management Plan Construction Worker Travel Plan Landscape and Biodiversity Strategy <p>The Applicant considers that the list of plans included in paragraph 1.1.4 is complete.</p> <p>As detailed in the Statement of Common Ground between Selby District Council (SDC), North Yorkshire County Council (NYCC) and Drax Power Limited (REP-018), NYCC and SDC do not reference any additional plans or outline plans they wish to see, other than a landscape strategy, which is currently under discussion with NYCC and the Applicant.</p> <p>In the Statement of Common Ground between the Environment Agency (EA) and Drax Power Limited (REP-019), no additional plans or outline plans are requested by the EA.</p> <p>In the Statement of Common Ground between Natural England (NE) and Drax Power Limited (REP-020), no additional plans or outline plans are requested, other than a monitoring plan for designated sites. This is under discussion with NE.</p>
EN1.5	Applicant	G1 of the REAC states that the CEMP will be reviewed and updated every six months. Would this review or the outcomes of any review be agreed with the RPA? If so, how is this secured?	<p>It is not anticipated that each iteration of the CEMP would be submitted to the LPA for review.</p> <p>As detailed in G1 of the Register of Environmental Actions and Commitments (REAC) (REP-015, Rev05 submitted at Deadline 2) the measures contained in the CEMP will be reviewed and updated by the Main Contractor in consultation with the LPA on a regular basis. The CEMP would be reviewed and updated as follows:</p> <ul style="list-style-type: none"> • Every six months; • To incorporate changes to legislation, policy or other requirements; • To incorporate the outcomes of environmental audits and inspections; • Following the outcome of environmental incident investigation on site; and • In response to near miss and good practice reporting. <p>It is anticipated that some of these updates would not result in changes that would be of consequence to the LPA, and that the updates would not result in changes to the outcome of the management and mitigation of potential environmental impacts. This could include, for example, changes of personnel (roles and responsibilities) on site. The Applicant would however provide copies of the updated CEMP to the LPAs. This measure has been added to [G1] of the updated REAC (REP-015, Rev05 submitted at Deadline 2).</p>
EN1.6	Applicant	Please could the Applicant submit an updated version of the REAC with the relevant DCO Requirement identified in the column ' <i>Mechanism for Securing Measure</i> '.	An updated version of the Register of Environmental Actions and Commitments (REAC) (REP-015, Rev05 submitted at Deadline 2) with the relevant DCO Requirement identified in the column ' <i>Mechanism for Securing Measure</i> ' has been submitted at Deadline 2 alongside these Written Questions.
EN1.7	NGCL	Please could NGCL confirm that there is sufficient space within the site to accommodate the necessary	The Applicant notes that NGCL is to provide a response to this question. However, the Applicant notes that the Statement of Common Ground between National Grid Carbon Limited and Drax Power Limited (REP-017 at

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		carbon capture equipment for the storage and transport infrastructure to be operated by NGCL.	4.1.9 of Table 4-1) states that the anticipated design parameters for the Drax BECCS Proposed Scheme including the Carbon Dioxide Delivery Terminal Compound (NGCL) if located within Work No 2 are agreed. As such, the Applicant understands that NGCL consider that there is sufficient space within the site to accommodate the necessary carbon capture equipment for the storage and transport infrastructure to be operated by NGCL.
EN1.8	Applicant	Given the uncertainty over the Proposed Development's 25-year operational lifespan, can the Applicant justify how the assessments represent a worst-case scenario in light of the potential for an investment decision to extend the operational lifespan?	<p>As set out in paragraph 4.5.1 (d) of Chapter 4 (EIA Methodology) of the ES (APP-040) the EIA has been carried out in line with the operation and maintenance scenario design life of 25 years, in line with paragraph 2.5.1 of Chapter 2 (Site and Project Description) of the ES (APP-038). Each ES individual topic assessment has identified and assessed a reasonable worst case, and the effects of the Proposed Scheme operating beyond 25 years are not expected to be any worse than those set out in the ES. Furthermore the assumed design life of 25 years has been used in similar projects, including Keadby 3.</p> <p>For further information in relation to this question, refer to Appendix 4 (Note in relation to WQ EN1.8 25 Year Design Life) to these FWQs (document reference 8.9.4). The note in the Appendix addresses the worst case scenario for every ES topic, and confirms that the assessments represent the worst-case scenario and, accepting the inherent uncertainty with future forecasting, the environmental effects are unlikely to worsen if the operational lifespan of the Proposed Scheme were to be extended.</p>
EN1.9	Applicant	The Humber Low Carbon Pipelines development is not taken forward from the long list to the short list of cumulative developments, despite construction potentially overlapping, due to "a lack of environmental information available" (Appendix 18.4 [APP-176]). At ISH1, it was stated that an application is expected mid-2023. Please could the Applicant consider whether the cumulative assessment (and the HRA in-combination assessment) should be updated to incorporate this project and provide assessments accordingly.	<p>The cumulative assessment has been updated and updated versions of the following documents have been submitted at Deadline 2: Chapter 18 (Cumulative Effects) (APP-054, Rev02), Appendix 18.1 (APP-173, Rev02), Appendix 18.2 (AS-013, Rev03), Appendix 18.4 (APP-176, Rev02) and Appendix 18.5 (APP-177, Rev02).</p> <p>Since the submission of the Application for the Proposed Scheme, the Humber Low Carbon Pipelines application has progressed and there is additional environmental information available in the form of a Preliminary Environmental Information Report (PEIR). In light of this, the Humber Low Carbon Pipelines has now been included as ID102 in Appendix 18.2 (Short List of Other Developments) (AS-013, Rev03 submitted at Deadline 2). Due to the nature of the information available in the PEIR, a qualitative assessment has now been carried out and is reported on in Appendix 18.4 (APP-176, Rev02 submitted at Deadline 2), Appendix 18.5 (APP-177, Rev02 submitted at Deadline 2) and Chapter 18 (Cumulative Effects) (APP-054, Rev02 submitted at Deadline 2).</p>
EN1.10	NGCL	NGCL is asked to provide an update on the Humber Low Carbon Pipelines project and include the anticipated timescale for submission of any application.	The Applicant notes that NGCL is to provide a response to this question. However, we can note that the Statement of Common Ground between National Grid Carbon Limited and Drax Power Limited (REP-017) states at Table 4-1, 4.1.5 that, the Humber Low Carbon Pipelines (HLCP) DCO Application is proposed to be submitted in early-mid 2023.
EN1.11	Applicant	Please could the Applicant provide an update on securing the phasing for the Flue Gas Desulphurisation Plant Demolition and explain any cumulative effect implications.	Planning permission under the Town and Country Planning Act 1990 (TCPA) was granted in January 2021 for the demolition of the Flue Gas Desulphurisation (FGD) plant. The Applicant intends to start demolition of the Absorber Units 4, 5 and 6 in Q2/3 2023 following the coal plant closure and discharge of TCPA planning conditions. This is expected to be completed prior to the start of construction of the Proposed Scheme. The TCPA permission lapses in January 2024 and in any event, Drax would look to have commenced demolition prior to this date. The demolition of Absorber Units 1, 2 and 3 would not take place until completion of the construction of the Proposed Scheme.

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			<p>The phasing for the FGD demolition is secured in Requirement 2 of Schedule 2 of the dDCO (AS-076, Rev05 submitted at Deadline 2). The drafting of this Requirement has been refined at Deadline 2 to more precisely require that the timing of construction of the authorised development must be consistent with paragraph 2.3.5 of Chapter 2 (Site and Project Description) (APP-038) of the ES. The phasing included in Chapter 2 (Site and Project Description) states that that the demolition works of Absorber Units 4, 5 and 6 of the FGD plant would take place prior to the start of the construction of the Proposed Scheme and the demolition of those Absorber Units is therefore included as already being demolished in the baseline of each chapter assessment. The demolition of Absorber Units 1, 2 and 3 are assumed to take place following the completion of the construction of the Proposed Scheme and are therefore assessed in ES Chapter 18 (Cumulative Effects) (APP-054, Rev02 submitted at Deadline 2).</p> <p>The demolition of Absorber Units 1, 2 and 3 is included in ES Appendix 18.2 (Short List of Other Development) (AS-013, Rev03 submitted at Deadline 2) as ID12. As described in Table 18.8 in Chapter 18 (Cumulative Effects) , with mitigation measures implemented, there are neutral impacts on air quality, not significant effects for ecological receptors, and low potential for cumulative effects in relation to noise. There may be a slight beneficial (not significant) socio-economic effect associated with temporary construction employment, and slight adverse (not significant) effects on demand for accommodation and community facilities. There may be minor adverse (not significant) effects on Common Landscape receptors such as the Site Fabric and Camblesforth Farmlands Landscape Character Area. There may be temporary moderate adverse (significant) effects on Common Visual receptors including residents of Camblesforth, Drax and footpath users. It has been determined however, that this effect would be no worse than with the Proposed Scheme on its own so no further mitigation is proposed.</p>
EN1.12	Applicant/ ERYC/ SDC	<p>Paragraph 18.5.38 of ES Chapter 18 [APP-054] states that any planning applications published since February 2022 have not been included within the cumulative effects assessment. Could the Applicant and LPAs confirm:</p> <p>i. whether they are aware of any other developments submitted to the local authority/ PINS since this date that should be included in the short list, and whether this is reflected in [AS-013]; and</p> <p>ii. whether any of the other developments in the long list had additional environmental assessment information subsequently submitted that would necessitate inclusion of that development in the short list.</p>	<p>An updated Cumulative Assessment (Chapter 18 (Cumulative Effects) has been submitted at Deadline 2 (APP-054, Rev02). This includes additional developments that have come forward since February 2022 up to 30 November 2022, and also those that have had additional environmental assessment information subsequently submitted.</p>
EN1.13	Applicant	<p>Document 5.5 Other Consents and Licences [APP-035] refers to a number of other consents, licences and permits that would be required for the Proposed Development. The Applicant is asked to:</p>	<p>i. The Applicant has submitted an updated version of the Other Consents and Licences document (APP-035) at this Deadline 2 to provide an update on the progress of the consents, licenses and permits required for the Proposed Scheme. These updates relate to the Environmental Permit (ID 1) and GCN District Level License (ID 8).</p> <p>ii. The Applicant will include a section providing an update on relevant consents, licences and permits in future iterations of SoCGs with the relevant consenting authorities. Where this has not been incorporated</p>

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		<p>i. provide updates on progress with obtaining these consents, licences and permits throughout the Examination; and</p> <p>ii. include a section providing an update on these consents, licences and permits in any emerging SoCGs that are being drafted with the relevant consenting authorities.</p>	<p>within versions of draft SoCGs submitted to date, this is where the document has been prepared and agreed prior to receipt of the Written Questions. The next iteration of the SoCGs will therefore address this request.</p>
EN1.14	Applicant	<p>Paragraph 6.2.13 of ES Chapter 6 Air Quality [APP-042] refers to the BAT conclusions for large combustion plants that were adopted on 31 July 2017. Could the Applicant confirm whether and how the latest guidance on BAT for post-combustion carbon dioxide capture, published July 2021, has been considered in the design of the Proposed Development?</p>	<p>The Applicant is in discussion with the Environment Agency on the application to vary the existing permit and part of these discussions relate to the identification of BAT or Best Available Techniques and any justifications for deviations from the Environment Agency's BAT guidance document on post combustion carbon dioxide capture published in July 2021 and then updated in November 2022. It is important to recognise that the guidance applied to both new build installations as well as retrofit schemes such as the BECCS scheme.</p> <p>The BAT guidance document references a number of areas of fundamental design which comprise the following headings:</p> <ul style="list-style-type: none"> • Power Plant selection and PCC integration with the PCC plant • PCC Plant Design and Operation (see examples below) • Cooling • Discharges to Water • Climate Change Adaptation <p>Examples of specific elements identified within the guidance document under the heading 'PCC Plant Design and Operation' and therefore dealt with as an integral part of the application to vary the Environmental Permit include the following. The examples given below demonstrate how the design of the Proposed Scheme has approached or responded to the current BAT requirements. Features to control and minimise atmospheric and other emissions include the following:</p> <p><u>SOx removal & NOx removal</u></p> <p>The Carbon Capture system developed for the installation at Drax manages SO₂ through the application of a direct contact cooler or quench column (work package 1D(i)). This is designed to accommodate the potential SO₂ levels and reduce the influent SO₂ and associate SO to within the operational envelope of the downstream capture systems.</p> <p>The NO_x emissions from the host unit to the PCC (post-combustion carbon capture) system will be controlled through the implementation of techniques to align with the requirements of the large combustion plant best available techniques. The primary techniques in operation are fuel selection, air staging and combustion control systems.</p> <p><u>Absorber emissions abatement</u></p> <p>The PCC process has been designed to minimise the release of amines through exploitation of the physiochemical properties of the solvents which are generally very soluble. The process utilises the soluble nature to minimise the release through the inclusion of a post absorber wash system which will capture the small quantities of amine-based substances which are not recovered back to the absorber column for re-use.</p>

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			<p><u>Point source emissions to air</u></p> <p>Drax already monitor the host units in accordance with IED Chapter II Emission Limit Values (ELVs) and the LCP BREF BAT AELs at normalised conditions. Additionally, Drax have proposed additional monitoring of all the species listed except for nitrosamines and nitramines (this is on the basis that there are currently no applicable monitoring techniques, either periodic or continuous, for these substances).</p> <p><u>Capture level, including during flexible operation</u></p> <p>Drax have developed a proposal for the monitoring and reporting of capture efficiency to support the capture of approximately 95% of the CO2 within the flue gas. The 95% capture efficiency is the key foundation to the design when selecting vendors and is a critical performance element of the contract.</p>
EN1.15	Applicant	The High Court found the Government's Net Zero Strategy unlawful in July 2022. Do any ES chapters need reviewing as a result?	<p>The Applicant does not consider that any of the ES chapters need reviewing in light of the Court's decision in R (on the application of Friends of the Earth Ltd) v BEIS (2022).</p> <p>In that decision, Holgate J concluded that the Net Zero Strategy ("NZS") breached the detail and reporting requirements of ss. 13-14 of the Climate Change Act 2008 ("CCA 2008"), insofar as the NZS itself lacked sufficient explanation of how the government's plans would achieve CB6, and BEIS' report on NZS did not account for a carbon shortfall of 5% in the NZS. The ruling was therefore that the NZS was unlawful as currently drafted – however, rather than quashing the NZS altogether (not least because the claimants in the case did not seek for it to be quashed), the Court at the end of its judgment ordered BEIS to instead publish an updated report by the end of March 2023 under s.14 of the CCA 2008 that would set out an improved NZS. Therefore, given that the NZS is, and will still be in place (albeit via an improved version of the strategy post March 2023), the Applicant considers that it remains applicable in assessing the need for the Proposed Scheme, and none of the Applicant's application documents, including the ES, are affected.</p>
EN1.16	Applicant	<p>Paragraph 6.1.2.b.viii of the Change Request Report [AS-045] says the underground cable beneath Rawcliffe Road would either use HDD/ auger boring or trenching and cut and fill.</p> <p>i. Will these details be worked out within the timescale of the Examination?</p> <p>ii. Would this affect the extent of land required and/ or likely effects?</p>	<p>i. The Applicant is in discussions with the owners of the electrical and telecommunications assets and has submitted requests for design and cost estimates to each respective asset owner for the type and extent of works required for works to underground each line crossing the AIL route in order to refine the detail of works required in each location. It is anticipated that the asset owners will provide responses within the timescale of the Examination. The Schedule of Negotiations and Powers Sought (REP1-005) sets out the current status of discussions with the asset owners. The discussions between the Applicant and the asset owners are ongoing.</p> <p>ii. In the Proposed Changes Application Report (PCAR) (AS-045) submitted by the Applicant, the maximum extent of land required (for either HDD / auger boring or cut and fill) has been included within the Order Limits. In terms of the environmental appraisal, the maximum extent of land and the methodology with the greatest potential impacts (whether HDD / auger boring or open cut) have been considered within the PCAR. As such should the methodology change the worst case for environmental effects would have been assessed. It is likely that responses from the asset owners would lead to refinement of the extent of land and the scope of works required, which might have the effect of reducing the extent of land required and potentially reducing the likely environmental effects of those works.</p>
EN1.17	Applicant	Paragraph 6.1.2 of the Change Request Report [AS-045] says pole L3043/00-10 is to be removed but the OHL Landscape and Biodiversity Plan [AS-049]	The Applicant can confirm that the OHL Landscape and Biodiversity Plan (AS-049) incorrectly shows that pole L3043/00-10 is to be retained and it should show the pole as being removed to align with paragraph 6.1.2 (vii) of

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		shows it as being retained. Can the Applicant clarify which is correct?	the Proposed Changes Application Report (AS-045). The Applicant has submitted an updated version of the OHL Landscape and Biodiversity Plan at Deadline 2 to reflect this change (AS-049, Rev02).
EN1.18	Applicant	Paragraph 6.1.14 of the Change Request Report [AS-045] says that a smaller area would be required for the HDD Receptor Compounds. However, to provide flexibility for the Driving and Receptor Compounds at either end of the HDD until full details are known, a maximum compound size of 20m x 20m has been provided for within the revised Order Limits at each end of a proposed HDD section. Is it possible that these details can be worked out within the timescale of the Examination and the compound size subsequently reduced?	<p>The Applicant is in discussions with the owners of the electrical and telecommunications assets and has submitted requests for design and cost estimates to each respective asset owner for the type and extent of works required for works to underground each line crossing the AIL route to the Site to refine the detail of works required in each location. It is anticipated that the asset owners will provide responses within the timescale of the Examination, which will include responses on the methodology for installation and the extent of land required to undertake installation works. It is possible that the responses from asset owners will allow the refinement of compound sizes to suit the intended methodology for installation.</p> <p>The Schedule of Negotiations and Powers Sought (REP1-005) sets out the current status of discussions with the asset owners. The discussions between the Applicant and the asset owners are ongoing.</p>
EN1.19	Applicant/ SDC	<p>i. Can the LPA advise of the status of the planning application 21/03027/STPLF listed as short list ID44 in the Short List of Other Developments [AS-013]?</p> <p>ii. Can the Applicant explain how the proposed Order Limits for PC-02 relate to the site boundary for shortlist ID44?</p>	<p>i. The Applicant notes that this application was approved on 23/12/22 by ERoY.</p> <p>ii. The Applicant confirms that there is an overlap with the Order Limits for PC-02 and the boundary for this consented development, relating to the proposed works for moving OHL2 – a Northern Powergrid electrical line to allow the transport of the abnormal indivisible loads (AILs). The Applicant is awaiting a response from Northern Powergrid on the design and extent of works to inform further discussions with the landowner/developer of ID44.</p> <p>The Schedule of Negotiations and Powers Sought (REP1-005) sets out the current status of discussions with Northern Powergrid and acknowledges that planning permission for ID44 has recently been granted.</p>
EN1.20	Applicant	As per the Applicant's oral submissions to the Preliminary Meeting, the ExA notes that the Applicant considers ERYC to be a host local authority in light of the acceptance of the change request for examination. Does the Applicant consider it necessary to provide PINS with an updated GIS shapefile to enable PINS to identify any additional neighbouring local authorities for future statutory correspondence?	<p>Yes. The Applicant has provided an updated shapefile to enable PINS to identify any additional neighbouring local authorities for future statutory correspondence.</p> <p>The Applicant confirms that ERYC were consulted at various stages during the pre-application and post-submission stages of the project, including the Statutory Consultation as set out in the Consultation Report (APP-018), Relevant Representations, as an ongoing part to a Statement of Common Ground, as well as for the non-statutory consultation for Proposed Changes Application as set out in the Proposed Changes Application Report (AS-045). As confirmed at the Preliminary Meeting, prior to the Proposed Changes Application, ERYC were treated informally as a host authority, and the authorities bordering them were treated informally as neighbouring authorities for the purposes of consultation on the Application.</p> <p>The Applicant's response at the Preliminary Meeting in response to discussions on the Proposed Changes request, (as confirmed in the Planning Inspectorate's Preliminary Meeting Note at item 6), confirmed that the ERYC are a host authority following the Examining Authority's acceptance of the Proposed Changes (particularly PC-02) into the Examination.</p>

2. TOPIC 2 AIR QUALITY AND EMISSIONS

Table 2.1 – Air Quality and Emissions

ExA Ref.	Addressed to	Question	Applicant's Response
AQ.1.1	Applicant	The study area for the construction phase is described within ES Chapter 6 [APP-042] as including: " <i>within 50 m of routes used by construction vehicles up to 500 m from the Order Limits</i> ", however this is not shown on Figure 6.1. The 50m buffer is only shown as 50m offset from the Order Limits and not 50m from routes used for construction vehicles up to 500m from the Order Limits. Can the Applicant respond as to whether Figure 6.1 should be revised and if so, whether there are any implications for the assessment of effects in the ES?	Figure 6.1 (Construction Phase Assessment Study Area) has been revised to account for the haulage route zone of the construction phase study area (APP-068 Rev02, being submitted at Deadline 2). It should be noted that the revision has no implications for the assessment of effects due to the absence of significant numbers of receptors adjacent to the public highway.
AQ.1.2	Applicant/ EA	<p>i. Please could the Applicant confirm whether the use of proxy amine and nitrosamine data for the purposes of the operational amine emission modelling was agreed with the EA, given the confidentiality issues with the BECCS technology supplier.</p> <p>ii. Please could the EA provide its view of the Applicant's approach.</p>	<p>The Applicant has not used proxy amine and nitrosamine data for the purpose of the operational amine emissions modelling for the May 2022 ES. Therefore, there was no need to agree such an approach with EA. Notwithstanding this, the overall methodology for the dispersion modelling undertaken by the Applicant follows Environment Agency Guidance: Air emissions risk assessment for your environmental permit, Air emissions risk assessment for your environmental permit - GOV.UK (www.gov.uk)</p> <p>Further summary information on the amines modelling is provided below</p> <p>The modelling and assessment of the impacts of amines and nitrosamines has been undertaken using technology-specific amine compounds. This relates to both the reaction rates used in the modelling of atmospheric chemistry and to the air quality standards against which the impacts have been assessed.</p> <p>It is not, at this stage, possible to share these data due to the compounds being Commercial in Confidence. The information supplied within Chapter 6 (Air Quality) (APP-042), associated appendices and Air Quality Technical Note 1 (AS-019) is sufficient to illustrate that no significant effects will arise from the operation of BECCS units.</p> <p>Proxy amine data was applied to sensitivity testing for the amine reaction rates only, but not used to generate the main results for the impact assessment.</p> <p>It should also be reiterated that the assessment has been based on conservative assumptions.</p> <p>The technology specific compound information has been shared with the Environment Agency under the Environmental Permit application process.</p>
AQ.1.3	EA	<p>Could the EA confirm if it is satisfied that:</p> <p>i. the modelled emissions profile used for the assessment in ES Chapter 6 [APP-042] represents a reasonable worst case; and</p> <p>ii. the ES provides sufficient detail for the pollution impacts from emissions to air on both public health</p>	<p>i) See Appendix B of the Applicant's Responses to Relevant Representations (AS-038), which provides justification for the modelling methodology used.</p> <p>ii) The model methodology used for the air quality assessment is fully compliant with EA guidance "Air emissions risk assessment for your environmental permit" which can be found at: Air emissions risk assessment for your environmental permit - GOV.UK (www.gov.uk)</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		and ecological receptors to be fully and accurately assessed?	
AQ.1.4	EA	Figure 6.8 [APP-075] shows a significant area that would fall into the category of slight adverse impact ($\geq 6\%$ of EAL) for annual nitrosamines process contribution, and the dispersion pattern suggests that the area would extend beyond the study area. Does the EA consider the study area to be sufficient for the assessment of the impact of nitrosamines?	<p>The use of a study area that extends 15km from the stack at Drax is well established and consistent with Environment Agency guidance "Air emissions risk assessment for your environmental permit" which can be found at: Air emissions risk assessment for your environmental permit - GOV.UK (www.gov.uk).</p> <p>Whilst the maximum impacts for annual mean nitrosamines occur at the edge of the study area, additional dispersion processes come into play beyond 10-15km from the stack that will reduce the modelled concentrations, primarily related to variations in meteorological conditions over space and time. Moreover, photolytic degradation of the nitrosamines has not been taken into account in the amine chemistry modelling, which will lead to overestimation of pollutant concentrations at distance from the stack.</p> <p>Together these effects would act to reduce concentrations beyond the study area and, it is therefore concluded that study area is sufficient to capture the maximum likely impacts of the Proposed Scheme</p>
AQ.1.5	EA	Is the EA satisfied that any potential uncertainties in the modelling of atmospheric degradation of amines has been addressed by the Applicant?	<p>Uncertainty in model results is inherent to all modelling studies. The approach taken for the environmental impact assessment has been to ensure that model inputs, specifically those relating to the specific amines, have been minimised and then to apply conservative assumptions, as set out below, to ensure that the impacts of the carbon capture process are not under-estimated.</p> <p>To reiterate, Chapter 6 (Air Quality) (APP-042), as updated by Air Quality Technical Note 1 (AS-019), set out the impacts of the assessment of amines and their degradation. The assessment has been based on technology specific compounds (and associated reaction rates) rather than proxy compounds, and the technology supplier has undertaken a literature review to determine appropriate Environmental Assessment Levels (EALs) for the specific compounds. As a result of this exercise, the daily and hourly EALs for the secondary amine (Amine 2 in Chapter 6 (Air Quality)) were revised from the Environment Agency's EALs for Ethanolamine (MEA, $400\mu\text{g}/\text{m}^3$ and $100\mu\text{g}/\text{m}^3$ respectively) to a more stringent $53\mu\text{g}/\text{m}^3$ and $13\mu\text{g}/\text{m}^3$, but the EAL for N-Nitrosodimethylamine (NDMA) was concluded to be sufficiently conservative for application to project specific degradation products. The modelling has, therefore, minimised uncertainties associated with the model input parameters.</p> <p>Beyond model inputs, the assessment of impacts has been undertaken using conservative assumptions including:</p> <ol style="list-style-type: none"> Assessing a core scenario which maximises the ground level impact of the operation of the BECCS units (as detailed in FWQ AQ1.3 above). Assessing an in-combination risk of all degradation products and directly emitted nitrosamines assuming all products are as carcinogenic as NDMA. Taking no account of the time scales for the degradation of amines and taking no account of the photolytic degradation of the nitrosamines themselves. Assuming emissions are constantly at their emission limit value. Assessing impacts against the worst year in 5 years tested.
AQ.1.6	Applicant	Can the Applicant provide an explanation as to why, in reference to paragraph 6.5.47 of the ES [APP-042], the assessment of cumulative impacts is dealt	The different approaches taken for human health and ecological receptors are consistent with the requirements of legislation and guidance applicable to each of these receptors in respect of air quality assessments.

ExA Ref.	Addressed to	Question	Applicant's Response
		with differently in relation to ecological vs. human receptors?	<p>For human health, the process is that the air quality assessment considers the impact of the process under consideration cumulatively with existing and process emissions and background concentrations i.e., that the potential for the operation of the process to cause or significantly worsen exceedances of air quality objectives is fully assessed. It is typically undertaken as an inherently cumulative assessment where other processes are included within the 'background' concentrations into the future that are added to the process contribution (PC) to generate a cumulative Process Environmental Concentration (PEC) as per Environment Agency guidance "Air emissions risk assessment for your environmental permit" which can be found at: Air emissions risk assessment for your environmental permit - GOV.UK (www.gov.uk). It takes account of both foreseeable improvements in background concentrations over time and foreseeable new processes (including processes that are as a result of the operation of consented physical developments) that may come online.</p> <p>For ecological receptors, and the Habitats Regulations Assessment, it is established by case law and by guidance that in-combination impacts of the project under consideration must be explicitly quantified for air quality. In this context, the in-combination impacts must include both the process contribution (PC) and the contribution of projects and plans proposed but not yet fully implemented. The assessment must also consider existing processes and transboundary influences to determine whether there is the potential for exceedance of the critical loads / critical levels for the habitats, but these do not form part of the explicit 'in combination' impact.</p> <p>The final Predicted Environmental Concentration (or Deposition) with the proposed project is effectively the same in both cases. The only difference is whether the in-combination impact with proposed processes is explicitly quantified (as for HRA/ecological receptors) or implicitly introduced via background concentrations.</p>
AQ.1.7	EA/ SDC	Can the EA and SDC confirm that they are satisfied with the Applicant's approach of undertaking no additional project-specific air quality surveys as per paragraph 6.5.49 of the ES [APP-042]?	Undertaking additional ambient air monitoring would not improve the robustness of the study since it would have no impact on the dispersion modelling itself, which accounts for the contribution of Drax only to pollution levels. It is not, for instance, possible to verify point source dispersion model outputs of the magnitude of the impact of Drax (very small / imperceptible) in the manner in which model verification can be undertaken for modelling of roadside pollutant concentrations. Local authorities undertake widespread monitoring of pollutant concentrations in the study area and, where these are elevated above background pollution levels e.g., Selby AQMA, they have been explicitly included in the Predicted Environmental Concentrations (PEC).
AQ.1.8	Applicant	<p>Paragraph 6.10.8 of the ES [APP-042] and AQ2 of the REAC [AS-092] describe the proposed mitigation measures for the operational phase. The Applicant is asked for further clarification as follows:</p> <p>i. Explain how the SO₂ emissions are reduced by 40%, including whether there is additional plant proposed for this process.</p> <p>ii. Table 6.23 describes an additional mitigation measure of reducing SO₂ emissions of all four biomass units by 30%, whereas paragraph 6.10.8 and Table 6.17 describe reducing the SO₂ emissions by 40%. Please confirm which is correct.</p> <p>iii. Does increasing the exit temperature of flue gases simply move the problem of acid deposition</p>	<p>(i) The concentrations of SO₂ generated from biomass are already relatively low compared with coal. The flue gas cooler system also known as the quench column uses a water fed spray system to cool the flue gas down. Crucially, the water is adjusted for pH in order to augment the removal of the SO₂ in the flue gas to meet the reduction. The removal of SO₂ and the adjusted SO₂ concentrations coming from the BECCS host units will also be secured by the Environmental Permit.</p> <p>(ii) There was an error in Table 6.23 of Chapter 6 (Air Quality) (APP-042) such that it was incorrectly indicated that the mitigation measure involved the reduction in SO₂ emissions from all four biomass units by 30%. The correct representation of the mitigation, namely that emissions from the BECCS units only would be reduced by 40%, was reflected in paragraph 6.10.8 and Table 6.17 of Chapter 6 (Air Quality). Notwithstanding this, the mitigation has been updated since the Chapter was written and the Environmental Permit Application for the Proposed Scheme was submitted to the EA in August 2022, such that a further 25% reduction in SO₂ emissions is proposed to be included as a permit condition for the annual Emission Limit Value (ELV). That is to say, the annual ELV for SO₂ will be decreased from the 100mg/Nm³ set by the Best Available Techniques for existing plant (in operation before 2014) to 45mg/Nm³ within the BECCS units, assessed <i>after</i> the removal of CO₂ from</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		<p>beyond the study area or does it decrease the total acid deposition effects associated with the Proposed Development?</p> <p>iv. Explain how the exit temperature of flue gases is increased including whether there is an energy penalty associated with this process.</p> <p>v. Provide the scientific basis of the evidence, and how the measures would avoid or reduce effects at nationally and internationally designated sites.</p> <p>vi. Explain the degree of confidence in the success of these measures to mitigate impacts of aerial emissions, including whether there is an appropriate example of an existing development where the proposed mitigation measures have been effective.</p> <p>vii. Explain how the measures will be secured, monitored, and enforced.</p> <p>viii. If, during the operational phase, monitoring demonstrates that the measures have failed, explain how the failure will be rectified.</p>	<p>the gas stream. This revision to the proposed mitigation is set out in Air Quality Technical Note 2 (February 2023) which forms Appendix 5 to these Written Questions (document reference 8.9.5). Following this update, the final version of the mitigation in Table 6.23 should be replaced with:</p> <p><i>Reduce potential impacts relating to acid deposition by applying operational changes to the Main Stack emissions parameters in the With Proposed Scheme scenario:</i></p> <ul style="list-style-type: none"> • <i>Reduce SO₂ emissions by 55% (an ELV reduced from 100mg/Nm³ to 45mg/Nm³), applied to the two BECCS Units</i> • <i>Increase exit temperature of flue gases from the BECCS Units from 80°C to 103°C.</i> <p>And Table 6.17 would reflect</p> <ul style="list-style-type: none"> • <i>SO₂ emission rate (g/s) for the combined stack (2 BECCS units plus 2 non-BECCS units) reduced from 203.4g/s to 154.5g/s.</i> <p>(iii) The primary effect of the increase in flue gas temperature is to reduce, in an absolute sense, the ground level impact of the plume for any given pollutant emission rate. This can be illustrated by consideration of the maximum annual mean NO₂ concentrations from the operation of 2 BECCS units alone:</p> <ul style="list-style-type: none"> • <i>Without mitigation the maximum impact is 0.147µg/m³, at a distance of 9.4km from the stack</i> • <i>With mitigation the maximum is 0.125µg/m³, at a distance of 11.4km from the stack.</i> <p>It can, therefore, be seen that there is shift in the location of maximum impact, further from the stack, but this does not shift the maximum impact outside of the study area (which extends 15km from the stack). Concentrations of pollutants outside of the study area will be lower than those modelled within the study area.</p> <p>(iv) Heat exchanger systems will recover heat from the inlet flue gases generated by the combustion process. The flue gas needs to be cooled prior to entering the absorber and this cooling process is achieved in the quench column. Heat exchangers will extract the useful heat from the flue gases prior to the quench column and introduce the heat back into the flue gas stream prior to the flue gas exiting the main stack. Introducing the heat at this point will increase the temperature of the flue gas and increase plume buoyancy and aid dispersion at the point of release to atmosphere. The use of heat exchangers has no impact on the energy penalty associated with operating the Carbon Capture Plant.</p> <p>(v) The impact of the mitigation measures is twofold. Firstly, the reduction in concentration of SO₂ in the exhaust gas stream directly reduces the mass emissions of SO₂ which directly reduces the ground level concentration of SO₂ and acid deposition i.e., when keeping all other plume characteristics, the same, the ground level impact is proportional to the mass emission rate of pollution. It follows logically that if you emit less pollution your impact will be lower. Secondly, the reheating of the plume has an indirect impact on ground level concentrations. Again keeping all other parameters the same, if you have a hotter plume, it will rise more in the atmosphere than a colder plume i.e. it is more buoyant. This additional buoyancy acts in the same way that increasing the stack height results in lower ground level impacts. This is because the plume has more distance and time to disperse before it reaches the ground level. Again, the benefit follows logic – a higher plume (whether through increased</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>stack height or, as in this case, greater plume buoyancy) reduces the ground level impact of the pollutants within the plume. The measures result in direct and indirect impacts that reduce the concentrations of pollutants and their subsequent contribution to acid and nitrogen deposition at nationally and internationally designated sites, relative to the Proposed Scheme without the operational emissions abatement measures applied. These conclusions accord with the general theories of atmospheric dispersion, such as set out in, for example, Turner, D.B. (1994). Workbook of atmospheric dispersion estimates: an introduction to dispersion modelling (2nd ed.). CRC Press. ISBN 1-56670-023-X, Briggs, G.A., "A plume rise model compared with observations", JAPCA, 15:433–438, 1965, and Hanna, Steven (1982). "Handbook on Atmospheric Diffusion". U.S. Department of Energy Report.</p> <p>(vi) The use of heat exchanger technology is well understood and an integral part of efficient power generation on power station sites. The use of heat exchangers can be seen in a number of processes already operating onsite. For example, there are numerous heat exchangers operating within the Flue Gas Desulphurisation systems which effectively perform the same role of extracting gas prior to one process and then introducing this heat back into the flue gas prior to emitting to atmosphere.</p> <p>(vii) The ELV reductions for SO₂ and the increase in temperature of the flue gases will be incorporated into the Environmental Permit conditions. The efficacy of the mitigation will be monitored continuously and reported in the quarterly and annual reports prepared for permit compliance purposes. The enforcement of the limits would be undertaken under this process. Please also see the response to FWQ BIO1.27.</p> <p>(viii) If the measures outlined to control emissions parameters fail, agreed protocols will be employed to limit further operation of the system. These protocols which are sometimes referred to as 'Other Than Normal Operating Conditions' or OTNOC will be agreed with the Environment Agency prior to commercial operation as part of the permit development process.</p>
AQ.1.9	EA	ES Chapter 6 [APP-042] explains that it was not considered appropriate to undertake modelling of cumulative impacts associated with amine compounds due to uncertainty in amine chemistry methodology and conservatism in modelling for proxy compounds. Instead, an approach was taken whereby the maximum predicted MEA and NDMA concentrations from both the Proposed Development and the Keadby 3 assessments were summed and compared to the respective EALs. Please can the EA provide its view of this approach.	See response to FWQ AQ1.10 which provides a justification for the approach taken. It is a conservative approach but one which does not risk the potential overly conservative impacts of modelling the degradation of the amines over large distances within the ADMS dispersion model used for this study. ADMS is the only commercially available software package that models both amine chemistry and the detailed dispersion of pollutants.
AQ.1.10	Applicant/ EA	The summing of the maximum modelled PC from the Proposed Development and Keadby 3 resulted in a slight adverse effect for the MEA 1-hour averaging period, a negligible effect for the MEA 24-	(i) The ADMS dispersion model is best suited to assessing impacts up to 10 – 15km from the source. Beyond this distance, the model becomes increasingly conservative due to the neglect of additional dispersion effects such as variations in meteorological conditions in space and time. When this conservativeness is coupled with a chemistry module which does not account for the breakdown of the degradation products themselves, the model

ExA Ref.	Addressed to	Question	Applicant's Response
		<p>hour averaging period, and a moderate adverse effect for the annual mean NDMA. It is concluded in paragraph 6.12.12 of the ES [APP-042] that this did not represent a significant cumulative effect. This is on the basis that a conservative approach was applied, including the worst-case assumption that maximum concentrations from both schemes would occur at the same location and time anywhere within the operational phase study area; and that the modelled values from both projects represented the sum of MEA and NDMA.</p> <p>i. Please can the EA provide its view of the appropriateness of this conclusion.</p> <p>ii. Please can the Applicant provide an explanation as to why an assessment cannot be undertaken that does take into account location and time of cumulative concentrations of amines and nitrosamines.</p>	<p>results potentially become overly conservative which is not helpful in terms of risk assessment. As such, whilst the addition of maximum impacts is, of itself, a conservative approach, it is a pragmatic approach in this case that avoids the highest risk of over conservatism.</p> <p>(ii) It would, in theory, be possible to undertake a dispersion modelling study in which the cumulative amine impacts was explicitly modelled. However, for the reasons provided in response part (i), it is highly likely that the cumulative risk would be overly conservative to the point of unrealism. Furthermore, the published Keadby assessment did not provide compound specific reaction rates that would enable a technology specific assessment to be run in a manner comparable with the assessment undertaken for the Proposed Scheme. It is not, therefore, appropriate or necessary in this instance.</p>
AQ.1.11	EA/ UKHSA	<p>Several RRs raise concerns regarding potential carcinogenic effects of compounds that form from the emissions to air of amines. The Applicant provided its response in point 16.1 of the Applicant's Response to Relevant Representations and Additional Submissions [AS-038]. The EA and UKHSA are each asked to provide comment on whether further assessment of the impacts to human health is required.</p>	<p>The potential carcinogenicity of the nitrosamines and nitramines is acknowledged in Chapter 6 (Air Quality) (APP-042). The impacts are slight adverse at the point of maximum impact within the study area and there is no significant increase in cancer risk with the continuous, full load operation of the BECCS units.</p> <p>Moreover, the assessment of impacts has been undertaken using conservative assumptions, as set out above.</p>

3. TOPIC 3 BIODIVERSITY AND HABITATS REGULATIONS ASSESSMENT

Table 3.1 – Biodiversity and Habitats Regulations Assessment

ExA Ref.	Addressed to	Question	Applicant's Response
BIO.1.1	Applicant	A number of pre-construction ecological surveys are proposed prior to the commencement of development. How are the pre-construction surveys secured?	<p>As detailed in section 1.1.4 of the REAC (REP-015, Rev05 submitted at Deadline 2), how measures are secured, is detailed within the Achievement Criteria and Reporting Requirements column in Table 1.1. For pre-commencement ecological surveys, this is to be secured pursuant to the CEMP (see items E3 and E4).</p> <p>The mitigation measures within the REAC (REP-015, Rev05 submitted at Deadline 2) which are to form part of the CEMP are secured by Requirement 14 of the DCO.</p>
BIO.1.2	Applicant	In the Applicant's letter dated 30 September 2022 [AS-017] it states that the offsite habitat area is not included within the Order Limits due to its dual role as both mitigating scheme impacts and assisting in the achievement of BNG and the need to retain flexibility as to the land that will be required. Can the Applicant explain why this approach is necessary as opposed to the 'Rochdale Envelope' approach to flexibility explained in The Planning Inspectorate's Advice Note 9: Rochdale Envelope.	<p>The extent of the area that makes up the Off-Site Habitat Provision Area has applied the Rochdale Envelope approach, in that its extent may change depending on the final BNG and mitigation requirements.</p> <p>It is not included in the Order Limits, as the location of the land was not able to be fully identified, allowing for the flexibility required and accounting for an understanding of what those requirements would be following the undertaking of the ES, HRA and BNG processes, until very close to the submission of the application. There was therefore insufficient time for it to be included within the Order Limits and consideration of them across the entire application documentation suite prior to submission of the application.</p> <p>As set out in (AS-017) however, the key point is that the ecological mitigation and enhancement measures are secured through a combination of DCO Requirement and the provisions of the section 106 agreement (the latter to reflect the land is not within the Order Limits), which ensure that they are put in place, retained and maintained. As such, no benefit would be gained by bringing the site into the Order Limits at this later stage.</p>
BIO.1.3	Applicant	It appears from the information provided in respect of BNG that no net gain has yet been achieved in relation to river units. Please can the Applicant explain how it intends to achieve a 10% river unit BNG.	<p>The Applicant has identified an opportunity for the delivery of the required river units, through supporting habitat enhancement and restoration measures to be delivered by the Colne and Calder Rivers Trust (CCRT). The Applicant is supporting CCRT in carrying out work to confirm the exact number of river units that can be delivered. Based on an initial review of the habitat enhancement and restoration proposed by the River Trust, the Applicant expects these measures to be more than able to deliver 10% BNG for the Rivers, Ditches and Streams component of BNG. This will be reflected in an update to the BNG Report for the Proposed Scheme, which the Applicant anticipates will be ready for submission into the Examination at Deadline 3.</p> <p>The Applicant is currently also in the process of drafting appropriate wording for the S106 agreement, to secure the delivery of CCRT's proposed habitat enhancement and restoration measures and their allocation to the Proposed Scheme's BNG allocation.</p>
BIO.1.4	Applicant	Although it is stated in Section 8.5 of the ES Ecology chapter that the significance of an effect was determined based on the magnitude of the effect and the value/ sensitivity of the feature, defined though the geographical scale, no criteria is provided in relation to magnitude of an impact; nor is it explained how magnitude is combined with receptor value/ sensitivity to determine the significance of an effect. Please could the	<p>The Applicant presumes this question relates to paragraph 8.5.12 of Chapter 8 (Ecology) of the Environmental Statement (APP-044), which states (emphasis added): <i>The relative importance of a significant effect is determined based on the extent to which its integrity or conservation status is compromised (i.e. the magnitude of the effect) and the value of the Important Ecological Feature, defined though the geographical scale. Characteristics such as duration and reversibility of an effect are also included, whereby duration is the time in which an impact is expected to last prior to recovery or replacement of the feature and reversibility is whether an impact is temporary or permanent.</i></p> <p>Use of the word 'effect' at this point was a typographical error, the word 'impact' should have been used instead. The revised sentence would therefore read '<i>The relative importance of a significant effect is determined based</i></p>

ExA Ref.	Addressed to	Question	Applicant's Response
		Applicant provide this information, preferably in a tabular format if appropriate.	<p><i>on the extent to which its integrity or conservation status is compromised (i.e. the magnitude of the impact) and the value of the Important Ecological Feature, defined though the geographical scale.</i></p> <p>Further detail relating to how the magnitude of an impact is determined is provided in paragraph 8.5.6 of the Ecology Chapter, which states: <i>Significant effects on Important Ecological Features are assessed as either positive or negative. Where an effect is neither positive nor negative, this is assessed as not significant or negligible. Each significant effect is assessed based on a number of factors including the magnitude of impact (incorporating intensity, frequency and spatial range) and the sensitivity of habitats and species to developmental changes.</i></p> <p>As set out in paragraph 8.5.4 of Chapter 8 (Ecology) of the ES: <i>'A significant effect is defined as an effect that could have an impact upon the structure, form, function and conservation status of a designated site, habitat and ecosystem or species population where these are defined as Important Ecological Features'.</i></p> <p>The assessment of impacts on the <i>'structure, form, function and conservation status of a designated site, habitat and ecosystem or species population'</i> (i.e. the information that informs the relative importance of a significant effect) is a matter of professional judgement by the ecologists completing the assessment. Such assessments cannot be readily converted into tabular format, as they are based on the experience and judgement of the ecologists involved. Furthermore, the assessment for one IEF (e.g. a designated site) will necessarily be based on different sources of information, guidance and criteria than the assessment for another IEF (e.g. a protected species), given the very different way such different features would respond to the same impacts.</p> <p>As such, in the ecological assessment there is no range of significance in the reporting of the effects other than against the geographical criteria: effects are either significant or they are not.</p> <p>Significance is reached when the magnitude of an impact is sufficient to affect an IEF as described in paragraph 8.5.4 set out above. A very low magnitude impact that is judged insufficient to trigger the criteria described in paragraph 8.5.4 would not trigger significant effects. This reflects the approach set out in the Chartered Institute of Ecology and Environmental Management's 'Guidelines for Ecological Impact Assessment in the UK and Ireland'¹, e.g. see paragraphs 5.24 to 5.28 and appendices 1 and 2 of that guidance (extract appended as Appendix 2 to these Written Question (document reference 8.9.2)).</p> <p>The Applicant has provided an assessment of the magnitude of the impacts on IEF in the ecology assessment, with the authors of the Ecology chapter assigning an impact criteria as per Table 4.1 of ES Chapter 4 (EIA Methodology) (APP-040).</p>
BIO.1.5	Applicant	There are frequent references throughout the chapter to potential effects of activities in the Woodyard, an area in the north of the power station site which would be used for laydown and heavy fabrication. However, it does not appear to be specifically identified on any plan. Please could the Applicant confirm that the area hatched in	The Woodyard is referred to as a general area for the purposes of the Ecology assessment and does not have a fully defined boundary but includes the hatched brown shown on Figure 2.3 (Construction Laydown Plan) (APP-061), which would be used for laydown and heavy fabrication. It is considered that the Woodyard would include land up to the northern and eastern edge of the Order Limits in this location.

¹ CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.

ExA Ref.	Addressed to	Question	Applicant's Response								
		brown on ES Figure 2.3 [APP-061] depicts the Woodyard.									
BIO.1.6	Applicant	The summary of construction/ decommissioning effects on designated sites (para 8.9.41) concludes that there would be a “ <i>minor adverse effect that is long term, reversible and significant at International and National geographical scales</i> ”, however it does not separately identify the individual sites and the potential effects on each one. Please could the Applicant confirm if this conclusion applies to all impact pathways and all sites.	<p>The text preceding paragraphs 8.9.41 (paragraphs 8.9.3 to 8.9.40) explores each of the construction / decommissioning effects prior to the application of targeted mitigation measures and their applicability to designated sites within the Zone of Influence of the Proposed Scheme. The table below summarises the designated sites considered to be relevant to each effect. The Applicant can confirm that where a designated site is identified as relevant to an impact pathway / effect, the effect in each instance is considered to be at most a ‘minor adverse effect that is long term, reversible and significant at International (European Sites) and National (NNR / SSSI) geographical scales</p> <table border="1" data-bbox="1323 531 2184 1883"> <thead> <tr> <th data-bbox="1323 531 1605 642">Impact pathway / Effect</th> <th data-bbox="1605 531 2184 642">Relevant designated sites</th> </tr> </thead> <tbody> <tr> <td data-bbox="1323 642 1605 1031">Loss or Mechanical Disturbance of Functionally-linked Land</td> <td data-bbox="1605 642 2184 1031">River Derwent SAC, Lower Derwent Valley SAC, Lower Derwent Valley SPA, Lower Derwent Valley Ramsar, Humber Estuary SPA and Humber Estuary Ramsar. Lower Derwent Valley NNR, Eskhamhorn Meadows SSSI, Burr Closes SSSI, Humber Estuary SSSI, Brighton Meadows SSSI, Derwent Ings SSSI, and Thorne, Crowle and Goole Moors SSSI.</td> </tr> <tr> <td data-bbox="1323 1031 1605 1499">Dust emissions</td> <td data-bbox="1605 1031 2184 1499">River Derwent SAC, Lower Derwent Valley SPA, Lower Derwent Valley Ramsar, Lower Derwent Valley SAC, River Derwent SAC, Humber Estuary SPA and Humber Estuary Ramsar. Lower Derwent Valley NNR, Eskhamhorn Meadows SSSI, Burr Closes SSSI, Humber Estuary SSSI, Brighton Meadows SSSI, Derwent Ings SSSI, River Derwent SSSI, and Thorne, Crowle and Goole Moors SSSI.</td> </tr> <tr> <td data-bbox="1323 1499 1605 1883">Increased risk of pollution from increased sediment load</td> <td data-bbox="1605 1499 2184 1883">River Derwent SAC, Lower Derwent Valley SPA, Lower Derwent Valley Ramsar, Lower Derwent Valley SAC, Humber Estuary SPA and Humber Estuary Ramsar. Lower Derwent Valley NNR, Eskhamhorn Meadows SSSI, Humber Estuary SSSI, Derwent Ings SSSI, River Derwent SSSI, and Thorne, Crowle and Goole Moors SSSI.</td> </tr> </tbody> </table>	Impact pathway / Effect	Relevant designated sites	Loss or Mechanical Disturbance of Functionally-linked Land	River Derwent SAC, Lower Derwent Valley SAC, Lower Derwent Valley SPA, Lower Derwent Valley Ramsar, Humber Estuary SPA and Humber Estuary Ramsar. Lower Derwent Valley NNR, Eskhamhorn Meadows SSSI, Burr Closes SSSI, Humber Estuary SSSI, Brighton Meadows SSSI, Derwent Ings SSSI, and Thorne, Crowle and Goole Moors SSSI.	Dust emissions	River Derwent SAC, Lower Derwent Valley SPA, Lower Derwent Valley Ramsar, Lower Derwent Valley SAC, River Derwent SAC, Humber Estuary SPA and Humber Estuary Ramsar. Lower Derwent Valley NNR, Eskhamhorn Meadows SSSI, Burr Closes SSSI, Humber Estuary SSSI, Brighton Meadows SSSI, Derwent Ings SSSI, River Derwent SSSI, and Thorne, Crowle and Goole Moors SSSI.	Increased risk of pollution from increased sediment load	River Derwent SAC, Lower Derwent Valley SPA, Lower Derwent Valley Ramsar, Lower Derwent Valley SAC, Humber Estuary SPA and Humber Estuary Ramsar. Lower Derwent Valley NNR, Eskhamhorn Meadows SSSI, Humber Estuary SSSI, Derwent Ings SSSI, River Derwent SSSI, and Thorne, Crowle and Goole Moors SSSI.
Impact pathway / Effect	Relevant designated sites										
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ExA Ref.	Addressed to	Question	Applicant's Response															
			Accidental releases of water borne pollutants	River Derwent SAC, Lower Derwent Valley SPA, Lower Derwent Valley Ramsar, Lower Derwent Valley SAC, Humber Estuary SPA and Humber Estuary Ramsar. Lower Derwent Valley NNR, Eskhamhorn Meadows SSSI, Humber Estuary SSSI, Derwent Ings SSSI, River Derwent SSSI, and Thorne, Crowle and Goole Moors SSSI.														
			Disturbance from Noise and Vibration	None – no significant effects predicted.														
			Visual disturbance from plant and personnel	River Derwent SAC, Lower Derwent Valley SPA, Lower Derwent Valley Ramsar, Lower Derwent Valley SAC, Humber Estuary SPA and Humber Estuary Ramsar. Lower Derwent Valley NNR, Eskhamhorn Meadows SSSI, Burr Closes SSSI, Humber Estuary SSSI, Brighton Meadows SSSI, Derwent Ings SSSI, River Derwent SSSI, and Thorne, Crowle and Goole Moors SSSI.														
BIO.1.7	Applicant	Potential construction/ decommissioning effects on the species identified as IEFs are considered in paras 8.9.48 to 8.9.93. A single overarching conclusion is provided for each feature (in terms of significance according to the geographical scale) rather than presenting the predicted significance level of each of the individual potential effects identified for each feature and considered in the assessment. For example, a number of potential effects are discussed in relation to otter, and it is concluded that there would be an effect significant up to a county scale. As the potential effects are not separated out it is unclear which or if all of them are considered to be significant. Please could the Applicant confirm if the conclusion stated for each feature applies to all of the predicted effects.	<p>The conclusion on significance of effects stated for each IEF species applies to all the predicted effects. To provide the ExA with additional clarity, the table below sets out which impact pathways / effects are considered to have potential to trigger significant effects and contribute to the overall significant effect predicted for each receptor.</p> <table border="1" data-bbox="1308 1335 2160 1892"> <thead> <tr> <th data-bbox="1308 1335 1522 1446">Species</th> <th data-bbox="1522 1335 1872 1446">Impact pathway / Effect</th> <th data-bbox="1872 1335 2160 1446">Significant (Y/N)</th> </tr> </thead> <tbody> <tr> <td data-bbox="1308 1446 1522 1560" rowspan="2">Bats</td> <td data-bbox="1522 1446 1872 1560">Habitat loss and disruption</td> <td data-bbox="1872 1446 2160 1560">Y</td> </tr> <tr> <td data-bbox="1522 1560 1872 1673">Disturbance of individual bats and their roosts</td> <td data-bbox="1872 1560 2160 1673">N</td> </tr> <tr> <td data-bbox="1308 1673 1522 1787" rowspan="2">Otter</td> <td data-bbox="1522 1673 1872 1787">Habitat loss and removal</td> <td data-bbox="1872 1673 2160 1787">N</td> </tr> <tr> <td data-bbox="1522 1787 1872 1892">Noise and vibration disturbance</td> <td data-bbox="1872 1787 2160 1892">N</td> </tr> </tbody> </table>			Species	Impact pathway / Effect	Significant (Y/N)	Bats	Habitat loss and disruption	Y	Disturbance of individual bats and their roosts	N	Otter	Habitat loss and removal	N	Noise and vibration disturbance	N
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ExA Ref.	Addressed to	Question	Applicant's Response			
				Visual disturbance	Y	
				Increased siltation / sedimentation load	Y	
				Increased risk of release of water borne pollutants	Y	
			Breeding and wintering birds	Habitat loss and removal	Y	
				Dust deposition	N	
				Noise and vibration disturbance	N	
				Visual disturbance	Y	
			Reptiles	Removal and disturbance of habitat	Y	
				Risk of incidental mortality and injury	Y	
			Amphibians	Habitat loss and disturbance	Y	
				Risk of incidental mortality and injury	Y	
			Terrestrial invertebrates	Habitat loss and disruption	Y	
				Risk of incidental mortality	Y	
			Vascular plants (green-winged orchid)	Removal and destruction of individual plants and their supporting habitat	Y	
BIO.1.8	Applicant	Although water voles are identified in Section 8 of the ES Ecology chapter as an IEF that has been assessed, no subsequent assessment has been provided within the chapter in relation to effects of	No specific assessment for water voles was provided, as the Applicant considers they will not be subject to any perceptible effects during construction or operation. This assessment has been reached on the basis of the known distribution of water voles from desk study sources (closest record approximately 400 m from the Order Limits), on the distribution of water voles as recorded during surveys to support the Drax Repower project			

ExA Ref.	Addressed to	Question	Applicant's Response
		the Proposed Development on water vole. Please could the Applicant explain why one was not provided or provide an assessment as necessary.	Appendix 8.9 (Otter and Water Vole Survey Report – Repower) (APP-144), and on the results of the habitat appraisal completed for the Preliminary Ecological Appraisal (APP-136). An additional inspection of the first 100m of Carr Dyke north-east of the Existing Drax Power Station Site, was completed by two ecologists on the 30 November 2021. This recorded no evidence of water vole activity within 100 m of the existing Drax Power Station Site. It is possible that water vole could be present in suitable ditch and watercourse habitats further away from the existing Drax Power Station Site, including adjacent to hedgerow planting locations within the Habitat Provision Area north of the existing Power Station Site. Works in these locations would be limited to hedgerow planting, which is considered to be no more intrusive than current ongoing agricultural activities and therefore would not perceptibly impact water vole populations, if present in those areas. The Proposed Scheme does not include any works within or adjacent to the watercourses where water voles were recorded during surveys for the Drax Repower project, which are located outside the Proposed Scheme Order Limits, in excess of 500 m south and east of the East Construction Laydown Area of the Proposed Scheme (see Figure 2 Sheet F of Appendix 8.9: (Otter and Water Vole Survey Report – Repower) (APP-144)).
BIO.1.9	NE	Can NE provide its view of the Applicant's conclusion that although the modelled CLo would be exceeded for acid deposition at a number of designated sites it would in reality be analogous to 1%, as the modelling was based on a number of conservative assumptions.	<p>The Applicant has provided a response to this question, as there are relevant updates to the air quality dispersion modelling and mitigation measures for the Proposed Scheme. These are relevant to this question.</p> <p>The Applicant assumes that this question relates to the acid deposition impacts from the Proposed Scheme alone, on Lower Derwent Valley SAC and Ramsar, Brighton Meadows SSSI, and Barn Hill Meadows SSSI, as reported in Table 8.10 of ES Chapter 8 (Ecology) (APP-044). The Applicant also assumes this question relates to paragraphs 8.11.14 and 8.11.15 of the Ecology chapter, which summarise the inherent conservatism in the dispersion modelling and set out the Applicant's position regarding modelled acid deposition of 1.1% of critical load as being analogous to 1.0% of critical load.</p> <p>The Applicant has revisited levels of Sulphur Dioxide (SO₂) emissions abatement that can be achieved for the Proposed Scheme since submission of the DCO application. Details of this are provided in Appendix 5 of these FWQs (Air Quality Technical Note 2) (document reference 8.9.5). The Applicant has also revised the approach to the modelling of other plans and projects, so that it aligns with the agreed HRA for the consented Keadby 3 DCO; in line with the Keadby 3 air quality dispersion modelling, Keadby 2 has been assessed as part of the future baseline, rather than as another project. This is reflected in the Revised Emissions Abatement Technical Note.</p> <p>With these updates, the impacts from the Proposed Scheme alone on acid deposition for all designated sites are reduced. As can be seen in Appendix 5, with the additional emissions abatement, acid deposition from the Proposed Scheme alone is now modelled to be a maximum of 1.0% of the critical load for Lower Derwent Valley SAC and Ramsar and Brighton Meadows SSSI, and 0.9% of the critical load for Barn Hill Meadows SSSI.</p> <p>The Applicant still considers it appropriate to consider the previously predicted impacts of 1.1% of critical load analogous to 1.0% of critical load. The question is however no longer directly relevant, as impacts of 1.1% are no longer predicted.</p>
BIO.1.10	Applicant	The assessment of operational effects on species prior to mitigation provided in Section 9 of the ES Ecology chapter does not include all of the species previously identified as IEFs and requiring assessment, although some of those are included in the assessment of residual LSEs contained in	<p>This is because the species not included in the pre-mitigation assessment are not predicted to be subject to <u>any</u> effects during operation of the Proposed Scheme, prior to the application of mitigation measures as set out in section 8.10 of the Ecology chapter. The residual effect (pre-mitigation) is therefore a consequence of construction-phase effects that remain valid prior to the application of mitigation.</p> <p>For clarity, this applies to the following species:</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		Section 8.11. Please could the Applicant explain why no pre-mitigation operational assessment was provided in this chapter in respect of the other IEFs identified, or provide assessments as necessary	<ul style="list-style-type: none"> a. Badger; b. Amphibians; c. Terrestrial invertebrates; d. Green-winged orchids; and e. Invasive non-native species
BIO.1.11	Applicant/ NE	<p>Para 8.10.39 states that in relation to potential effects on GCN an application to use the DLL scheme, that provides strategic mitigation, has been made to NE.</p> <ul style="list-style-type: none"> i. Can the Applicant provide an update on progress with the application. ii. Please can NE indicate if it is likely to be able to submit a LONI to the Examination. 	<p>The Applicant has been in discussions with Natural England's District Level Licensing Team regularly over the pre-examination and Examination Periods to date. This has allowed the Applicant and Natural England to reach agreement regarding the requirements for the Applicant to rely on the North-East Yorkshire DLL Scheme.</p> <p>Natural England provided an updated Impact Assessment and Conservation Payment Certificate (IACPC) to the Applicant on the 19 December 2022. This confirms that subject to the Applicant making the required Conservation Payments and Natural England's final sign-off, the Applicant can rely on the North-East Yorkshire DLL. Following final discussions between the Applicant and Natural England, the Applicant returned a signed copy of the IACPC to Natural England on 30 January 2023.</p> <p>The Applicant anticipates Natural England will shortly issue them with an invoice for the necessary administration fees and 1st Stage Conservation Payment (see section 4 of the IACPC for details). Once the Applicant has paid these fees, we understand that Natural England will then also sign the IACPC, and return a copy to the Applicant. At that point, the IACPC will be complete and the Applicant expects to be able to rely on it to demonstrate that European Protected Species licensing matters relating to great crested newts have been addressed.</p> <p>On Point ii. of the ExA's question, the Applicant understands from Natural England's DLL team that they do not issue LONI into DCO Examinations where District Licensing is being used instead of a site-specific EPS licence. The Applicant understands that Natural England will advise that the completed IACPC can be relied upon instead.</p>
BIO.1.12	EA/ NE	The ExA notes the content of Air Quality Technical Note 1, submitted in October 2022, that updates the emissions modelling results in relation to amines and other pollutants, and the Applicant's conclusion that the revised data does not change the conclusions of the air quality assessment and the HRA. Can NE and the EA provide their view of the effect of the revised data on those assessments.	
BIO.1.13	EA	Following mitigation, acid deposition at the Lower Derwent Valley SAC and Brighton Meadows and Barn Hill Meadow SSSIs is modelled to reduce to 1.1% of the CLo, which is an exceedance of the 1% CLo for these sites. This is considered by the Applicant to represent a marginal exceedance and not result in a significant effect. The Applicant is referred to NE's comments on this matter	The Applicant refers the ExA to our response to question BIO.1.9.

ExA Ref.	Addressed to	Question	Applicant's Response
		contained in its RR. Can the EA also provide its view of the Applicant's conclusion.	
BIO.1.14	NE/ RPAs	Are you satisfied that mitigation measures outlined in Section 12.10 of ES Chapter 12 and the proposed Surface Water Management Plan referred to in WE8 of the REAC are secured in Schedule 2 of the dDCO?	<p>The mitigation measures outlined in Section 12.10 of ES Chapter 12 (Water Environment) (APP-048), including provision of a Surface Water Management Plan, are included within the REAC (REP-015, Rev 05 submitted at Deadline 2) including:</p> <ul style="list-style-type: none"> f. Section 1.1.4 bullet e. states that the CEMP for the Proposed Scheme will include a Surface Water Management Plan. g. [WE8] describes those measures that will be implemented through the Surface Water Management Plan which will be approved by the LPA. <p>The mitigation measures within the REAC (REP-015, Rev05 submitted at Deadline 2) are secured within the draft Development Consent Order (DCO) (AS-076, Rev05 submitted at Deadline 2) via Requirement 14.</p>
BIO.1.15	NE/ RPAs	Are you satisfied that mitigation measures outlined in Section 5.1.3 of ES Appendix 6.2 and AQ1 of the REAC are secured in the dDCO?	The mitigation measures outlined in Section 1.3 of Appendix 6.2 (Construction and Decommissioning Dust Assessment) (APP-126) are included in the Register of Environmental Actions and Commitments (REAC) (REP-015, Rev05 submitted at Deadline 2) in Ref IDs AQ1, G2, G5 and WE8. As stated in the REAC, these measures will all be included in a Construction Environmental Management Plan, which is secured through Requirement 14: Construction Environmental Management Plan in the draft DCO (AS-076, Rev05 submitted at Deadline 2).
BIO.1.16	NE	With reference to Tables 5-1 and 6-1 of the PCAR [AS-045], is NE satisfied that Appendix 4 of the PCAR (Ecology Survey Technical Note) [AS-053] provides sufficient evidence for the Applicant's conclusion that there is negligible potential for land within and adjacent to the sites of the proposed changes to act as functionally-linked land for any of the qualifying interests of the relevant European sites?	
BIO.1.17	NE	Is NE satisfied that Appendix 4 of the PCAR (Ecology Survey Technical Note) [AS-053] provides sufficient information on species that may be present or use the land required for the change proposals, and that no further mitigation is required?	
BIO.1.18	Applicant	Paragraph 5.1.6 of the HRAR states that it was intended that this assessment would be passed to NE in order to obtain its advice on the conclusions reached. Neither the HRAR nor its appendices contain any indication that NE was consulted on the HRA. NE makes a reference in its RR to advice provided to the Applicant in May 2022 which does not appear to have been taken into account in the	The Applicant received advice from Natural England via the Discretionary Advice Service on the 5 May 2022. The HRA advice received was provided solely in relation to the Applicant's request for Natural England to review the 'phosphate-limitation note' (Appendix 6 (Drax Nitrate / Phosphate Nutrient Limitation Note) (APP-194)) that had previously been submitted into the Drax Repower DCO Examination. Due to the timescales within which dispersion (air quality) modelling results and other information relevant to production of the HRA was finalised, it was not possible to complete the HRA Report (APP-185 – APP-194) with sufficient time to also consult on a draft with Natural England prior to submission of the DCO application.

ExA Ref.	Addressed to	Question	Applicant's Response
		HRA (or the air quality assessment). Please can the Applicant confirm whether the approach to the HRA and its conclusions were subsequently discussed with NE and, if so, how that has been reflected in the application HRAR.	<p>As alluded to in row 5.5 of the Applicant's Responses to Relevant Representations and Additional Submissions (AS-038), the advice received from Natural England on 5 May was received too late for it to be included in the 23 May submission. This was due to the very large number of documents requiring finalisation and cross-checking, with the drafting process being too advanced to make material changes to documents by 5 May. Natural England were also unable to confirm that DAS advice for the Proposed Scheme could be provided until 20 January 2022, which meant engagement between the Applicant and Natural England outside statutory processes commenced from February 2022.</p> <p>The Applicant has had several rounds of subsequent engagement with Natural England following submission of the DCO application. As can be seen from version 2 of the SoCG between Natural England and the Applicant (REP-020), a number of matters have now been agreed that were under discussion when version 1 of the SoCG was submitted into the Examination (AS-032). These include several matters relating to the HRA Report, which will be reflected in the updated HRA Report being submitted for Deadline 2.</p>
BIO.1.19	NE	Please can NE confirm whether it agrees that the HRAR for the Proposed Development considers the correct European sites and features.	
BIO.1.20	Applicant	Information in the screening matrices is inconsistent with information in the HRAR, eg some features for which an LSE is excluded in the HRAR are shown as subject to an LSE in the matrices. In addition, some matrix evidence notes are not consistent with the conclusions within the matrices about whether particular features are subject or not to an LSE. Can the Applicant provide updated, corrected matrices.	The Applicant notes the observation from the ExA and has provided updated matrices and an updated HRAR for Deadline 2.
BIO.1.21	Applicant	Para 3.3.4 of the HRAR states there are only slight differences between the Option 1 and Option 2 construction programmes and so no material difference in potential effects on the European sites. However, Option 1 shows second CC plant installation being undertaken over seven quarters between Q1 2028 and Q3 2029; while Option 2 shows it occurring over 10 quarters between Q1 2026 and Q2 2028. Additionally, Option 1 shows its commissioning (four quarters in total) taking place simultaneously during the last three quarters of its installation; whereas under Option 2 it is shown as being commissioned over six quarters but simultaneously only during one quarter (the final one) of installation. Can the Applicant explain what was used to represent the worst case construction scenario in the HRA.	As stated the Applicant considers there is no material difference in the potential effects on European Sites between the two options. As such there would be no change in the outcome of the assessment if either one was used as the sole basis for assessment. The assessment has considered the theoretically worst case impacts that may occur from Option 2 (being of overall longer duration than Option 1), but again does not consider these differences material to the assessment which focuses on the impact that is caused, particularly after the application of mitigation measures as set out in Section 4.1 of the HRA Report (APP-185, Rev02 being submitted for Deadline 2).

ExA Ref.	Addressed to	Question	Applicant's Response
BIO.1.22	Applicant	In point 5.15 of the Applicant's Response to Relevant Representations and Additional Submissions [AS-038], the Applicant responds to NE's concerns about potential impacts from construction traffic emissions to air on the Humber Estuary SAC/ SPA/ Ramsar site designated features, which were ruled out in the HRAR. Similarly, NE raised concerns about such impacts on the Humber Estuary SSSI. Please can NE comment on whether the additional information provided sufficiently addresses its concerns about this matter.	The Applicant understands that Natural England is agreed on this point, as noted in the SoCG (REP-020) with them submitted at Deadline 1.
BIO.1.23	Applicant	Wording about potential biophysical changes during operation appears to be missing from the end of the paragraph 3.3.29. Please can the Applicant provide the omitted text.	The Applicant can confirm this will be addressed in the update to the HRA Report (APP-185, Rev02 being submitted for Deadline 2).
BIO.1.24	Applicant	The information on potential ICE is not consistent between that in Tables 3.8 to 3.17 and that in Table 3.18 (Summary of ICE); neither is the info on ICE in the evidence notes to the screening matrices. As a result, it is unclear which impacts on which features of which sites are concluded to lead to in-combination LSEs. Can the Applicant provide an updated HRAR and screening matrices that address these inconsistencies.	The Applicant can confirm this will be addressed in the update to the HRA Report (APP-185, Rev02 being submitted for Deadline 2).
BIO.1.25	Applicant	Paragraph 4.1.4 states that hedgerow planting would be carried out in March to minimise the potential effects of loss and disturbance of FLL on wintering/ passage SPA and Ramsar bird species. The Outline Landscape and Biodiversity Strategy [APP-180] limits hedgerow maintenance activities to outside the wintering bird period but does not appear to include limits on the timing of planting. Can the Applicant state where this mitigation is secured.	The Applicant has updated the Register of Environmental Actions and Commitments (REAC) to include this mitigation (included in Ref ID LVIA2) and has submitted the updated REAC at Deadline 2 (REP-015, Rev05).
BIO.1.26	Applicant	Para 4.1.20 includes the Lower Derwent Valley SPA as subject to an LSE from acid deposition in combination with other plans and projects during operation. However, this is inconsistent with information contained in other sections of the	The Applicant can confirm that the Lower Derwent Valley SPA is not considered sensitive to the effects of acid deposition, as set out in Appendix 5 Air Quality Sensitivity of European Sites (APP-193) and elsewhere in the HRAR as highlighted by the ExA. The Applicant can confirm that Lower Derwent Valley SPA is included in paragraph 4.1.20 in error. The Applicant will correct this in the update to the HRA Report (APP-185, Rev02 being submitted for Deadline 2).

ExA Ref.	Addressed to	Question	Applicant's Response
		HRAR, such as in Table 3-18, and the screening matrix contained in HRAR Appendix 1, which indicates that no LSE is anticipated. Can the Applicant confirm whether this is a textual error.	
BIO.1.27	Applicant	It is stated in para 4.1.23 of the HRAR that the proposed operational mitigation for air quality impacts, ie changes to the Main Stack emissions parameters, would be secured through the permitting process. In addition, no reference has been made any monitoring arrangements. Can the Applicant explain where the proposed operational mitigation and monitoring is secured in the dDCO.	<p>The mitigation and monitoring arrangements in relation to air quality impacts will be dealt with through the permitting process, not through the dDCO.</p> <p>This reflects the current position at the existing Drax Power Station which operates in accordance with an Environmental Permit (permit reference number EPR/VP3530LS) which includes a number of mitigation and monitoring measures and which has been appended at Appendix 6 (document reference 8.9.6).</p> <p>The existing permit monitoring requirements are listed under schedule 3 of the permit, have to be undertaken by the operator (Drax Power Limited).</p> <p>As can be seen, these requirements define the species to be monitored, the frequency of monitoring and also the limits which the operator must meet, e.g. daily, monthly and annual limits. These limits are largely dictated by the Industrial Emissions Directive (IED).</p> <p>As part of the Applicant's application to vary the permit, these monitoring arrangements will be amended to include those species and the limits applied by the regulator against which they require the operator to monitor and report against.</p> <p>The Applicant also notes Natural England's advice that in addition to monitoring of emissions from the Main Stack of the Proposed Scheme, monitoring of the protected sites themselves should be completed. Natural England have set this out in Row 4.2.7 of Table 4.2 in Rev 2 of the Statement of Common Ground between Natural England and the Applicant. This states '<i>NE also highlights our recommendation that monitoring of the protected sites should also be carried out for the identified pollutants (acid and nitrogen deposition, and ammonia). This requirement should be secured by the DCO or permit variation application (outlining proposed mitigation measures and a detailed monitoring plan).</i>'</p> <p>The Applicant notes Natural England's advice but is unaware of any monitoring technique which could be employed at the designated sites and would be capable of separating (and therefore detecting) pollutants from the Proposed Scheme from: the other plans and projects considered in the in-combination assessment; and from all other sources. In addition, there are a number of significant logistical challenges associated with deploying and monitoring acid and nitrogen deposition in the field, which requires expensive and complicated monitoring equipment. The Applicant would also highlight that the predicted in-combination impacts arising from the Proposed Scheme and other plans and projects included in the cumulative assessment are cumulatively of a smaller magnitude than inter-year variation in baseline air quality conditions. That is to say, the effects of the identified plans and projects on acid deposition, nitrogen deposition, and ammonia concentrations could not be detected at the protected sites and could also not be separated from natural and anthropogenic variation in other sources of nitrogen in any given year. Any changes in the status of habitats at the Protected Sites arising from the Proposed Scheme would also be negligible and imperceptible, and therefore not detectable through, for example, botanical survey monitoring. Such monitoring could also detect changes that were entirely unrelated to emissions from the Proposed Scheme or from other sources of nitrogen or wider acid deposition and for which it may be impossible to determine the cause of the change. The Applicant therefore considers that monitoring of the protected sites as a means of detecting impacts and effects of the Proposed Scheme is effectively not</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			possible. Any such monitoring would therefore be of no use for monitoring the environmental effects of the Proposed Scheme and could not reasonably be secured as part of the DCO or Environmental Permit.
BIO.1.28	Applicant	<p>Table 4.16 of the HRAR appears to reflect the same information as in ES Chapter 6 Table 6.18 (with the addition of the same figures presented for the Lower Derwent Valley Ramsar as the SPA), except the 'Max PC (Impact) – With Mitigation' figure is different (0.00 instead of 0.01).</p> <p>In addition, for each of the other two sites, although the Max PC figure with and without mitigation is the same, the Max PC as a % of the CLo is different. Can the Applicant explain these anomalies.</p>	<p>The Applicant assumes that in the first part of this question, the ExA is referring to the <i>Max PC (Impact) – With Mitigation</i> figure for Thorne Moor SAC. As stated in the question from the ExA, in Table 4.16 of the HRA Report this figure is expressed as 0.00 keq/ha/yr, whilst in Table 6.18 of Chapter 6 (Air Quality) (APP-042) this is expressed as 0.01 keq/ha/yr. The Applicant can confirm that the underpinning air quality data was identical between both tables. The air quality data, with additional decimal places displayed, were presented in Table 1.12 of Appendix 6.5 (Operational Phase Results Tables Ecological Receptors) to the ES (AS-015, Rev03 submitted at Deadline 2). The difference between Table 6.18 of Chapter 6 (Air Quality) and Table 4.16 of the HRAR and Table 1.12 of Appendix 6.5 is down to a typographical error in Table 6.18 of Chapter 6 (Air Quality).</p> <p>In relation to the second part of the ExA's question, there is no anomaly. The numerical magnitude of the modelled impact to both Lower Derwent Valley sites is correctly presented as 0.01keq/ha/yr (rounded to 2 decimal places), as highlighted by the ExA. The <i>Max PC as a % of critical load - With Mitigation</i> is correctly different from the Max PC as a % of Critical Load – No Mitigation since, as can be seen in Table 1.12 of Appendix 6.5 in which additional decimal places shown, the actual magnitude of the impact is different in the two cases. Without mitigation, the impact is 0.013keq/ha/yr (rounded to 0.01 with 2 decimal places); With mitigation, the impact is 0.007keq/ha/yr (also correctly rounded to 0.01 with 2 decimal places). The impacts equate to 2.0% and 1.1% of the critical load respectively since the percentage impact is calculated prior to rounding.</p> <p>The air quality modelling has been updated since the production of the ES and application version of the HRA Report were produced, as set out in Appendix 5 to these FWQs (document reference 8.9.5).</p>
BIO.1.29	Applicant	<p>The ExA notes the Applicant's conclusions within the HRAR in relation to: acid deposition on the Lower Derwent Valley SAC and Ramsar site from the Proposed Development alone and in combination with other plans and projects; and NH₃, nitrogen deposition, and acid deposition from the Proposed Development on Thorne Moor SAC in combination. Please can the Applicant provide further justification for the conclusion that the quoted exceedances of the CLes and CLoS would not result in an AEoI on the European sites (the same point applies to the assessment in the ES Ecology chapter of the effects on SSSIs). The Applicant is referred to the advice contained in NE's RR [AS-011] in this regard. The ExA notes from information contained within [AS-038] that the Applicant is currently liaising with NE in relation to this matter.</p>	<p>The Applicant continues to consider that the operational air quality effects of the Proposed Scheme, either alone or in-combination with other plans and projects, would not lead to AEoI on European Sites, or damage to SSSI. The Applicant considers this conclusion is supported by the assessment presented in the ES Ecology chapter (APP-044) and the HRA Report (APP-185, plus appendices). The Applicant does recognise that NE have advised additional information is required and has provided advice on the types of additional information that could be provided.</p> <p>As highlighted by the ExA, the Applicant has continued to engage with NE over this matter, with agreement reached on a number of aspects of the air quality modelling since submission of Natural England's RR (AS-011).</p> <p>The Applicant has noted Natural England's advice regarding acid deposition to Lower Derwent Valley SAC and Ramsar; and for NH₃, nitrogen deposition, and acid deposition on Thorne Moor SAC in combination. Since the submission of the Natural England Relevant Representation the Applicant has completed or is completing several areas of additional work relating to this. This response provides an update on this additional work and how it further supports the conclusions reached in the ES Ecology chapter and HRA. In order to assist with review of this response, the Applicant has also summarised the Natural England advice relating to the Lower Derwent Valley and Thorne Moor SAC (and relevant SSSI). This is taken from the Natural England Relevant Representation (AS-011), extracted from Table 1, Key Issue 19 and 20.</p> <p>In relation to Lower Derwent Valley, Natural England stated the following (Applicant has added emphasis):</p> <p><i>'...We advise that further assessment should be provided to determine whether the additional contribution is likely to undermine the conservation objectives of the site. Examples of such evidence may include the sensitivity of the species present in this case; any trends in acid deposition in the area, and the characteristics</i></p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p><i>and specific environmental conditions at the site concerned. Further information on suitable sources of evidence can be found in Natural England's guidance document NEA001²...</i></p> <p>In relation to Thorne Moor, Natural England Stated the following:</p> <p><i>'...additional evidence should be provided to assess whether the development would undermine the conservation objectives, by the addition of 1.7% nitrogen deposition in-combination. Examples of such evidence may include the sensitivity of the species present in this case, any trends in N dep in the area, the spatial extent of the SAC impacted and the characteristics and specific environmental conditions at the site concerned...'</i></p> <p>In relation to the reference to NEA001 (see emphasis above), the Applicant has confirmed with Natural England's air quality specialist the relevant section of NEA001 being referred to. These are between paragraphs 5.14 to 5.67 of NEA001, headed as follows:</p> <ul style="list-style-type: none"> a. <i>'Consider whether the sensitive qualifying features of the site would be exposed to emissions;</i> b. <i>Consider the European Site's Conservation Objectives</i> c. <i>Consider background pollution;</i> <ul style="list-style-type: none"> i. <i>Review the Environmental Benchmarks ('critical loads and levels') and feature sensitivity to nitrogen;</i> ii. <i>Check for exceedance of Environmental Benchmarks;</i> iii. <i>Consider trends and whether there is evidence to indicate that background levels are decreasing;</i> d. <i>Consider the designated site in its national context;</i> e. <i>Consider the best available evidence on small incremental impacts from nitrogen deposition;</i> f. <i>Consider the spatial scale and duration of the predicted impact and the ecological functionality of the affected area;</i> g. <i>Consider site survey information;</i> h. <i>Consider national, regional and local initiatives or measures which can be relied upon to reduce background levels at the site; and</i> i. <i>Consider measures to avoid or reduce the harmful effects of the plan or project on site integrity.'</i> <p>The Applicant has provided responses to several of the points of advice received from Natural England in their Response to Relevant Representations and Additional Submissions (AS-038). These are referred to in this response, plus some additional responses are made. In addition, the Applicant has provided additional information which does not directly respond to the points made by Natural England, but which the Applicant considers is relevant to the conclusion of no AEOI.</p> <p>The Applicant has updated the dispersion modelling for the Proposed Scheme since the DCO application was submitted. Full details of the updated modelling are provided in Appendix 5 (Air Quality Technical Note 2) (document reference 8.9.5). The updated modelling captures two main changes:</p>

² Natural England (June 2018). NEA001: Natural England's approach to advising competent authorities on the assessment of road traffic emissions under the Habitats Regulations.

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>a. Updates to the operational emissions abatement mitigation, which has enabled a greater reduction in SO₂ mass emissions from the BECCS units. The reduction in SO₂ emissions leads to a corresponding reduction in the Proposed Scheme's contribution to acid deposition; and</p> <p>b. Inclusion of the Keadby 2 Power Station project in the future baseline for the Proposed Scheme, rather than in the list of in-combination plans and projects. This reflects the approach to dispersion modelling taken for the Keadby 3 Carbon Capture Power Station (EN010114) and which informed the assessment of air quality effects on designated sites for the project, given the imminent commissioning of that project. The Keadby 3 DCO was granted by the Secretary of State for Business, Energy, and Industrial Strategy on the 7 December 2022. References to the dispersion (air quality) modelling numerical results later in this response therefore reflect this approach.</p> <p>The detailed results of the updated dispersion modelling are set out in Appendix 5. A summary of the updated results for the Lower Derwent Valley SAC and Ramsar, and for Thorne Moor SAC, are provided in the relevant sections below.</p> <p><u>Lower Derwent Valley SAC/Ramsar (and underpinning SSSI)</u></p> <p>At the time of submitting the DCO application, the Proposed Scheme alone was predicted to generate a Process Contribution (PC) for acid deposition of up to 2.0% of critical load, prior to the application of emissions abatement mitigation (see paragraph 3.5.44 of the application HRA Report (APP-185)). With operational emissions abatement applied, the impact of the Proposed Scheme alone was modelled to reduce to 1.1% of critical load (see Table 4.16 in the HRA Report).</p> <p>As described above and set out in detail in Appendix 5, the Applicant has subsequently updated the dispersion modelling for the Proposed Scheme to account for updated operational emissions abatement of SO₂ and to reflect the updated approach to cumulative assessment of Keadby 2. With these updates, the Proposed Scheme alone generates a maximum PC of 0.96% of critical load, i.e. under the 1% significance screening criteria (see Appendix 5 (Air Quality Technical Note 2) (document reference 8.9.5)). The updated impact of the Proposed Scheme alone with mitigation, therefore, no longer triggers the criteria for a likely significant effect and can be ruled out of further investigation on numerical grounds alone. This applies to all European Sites and all SSSI that had previously been modelled to experience a PC greater than 1.00% of critical load.</p> <p>At the time of submitting the DCO application the Proposed Scheme and other plans and projects (see paragraph 6.5.27 of the ES Air Quality chapter) were predicted to generate a cumulative Process Contribution (PC) for acid deposition of up to 2.7% of critical load, prior to the application of emissions abatement mitigation (see Table 6.22 of ES Chapter 6 (Air Quality)). With operational emissions abatement applied, the impact of the Proposed Scheme alone was modelled to reduce to 1.8% of critical load.</p> <p>With the updates to the dispersion modelling as detailed in Appendix 5, the cumulative PC is reduced further to a maximum of 1.56% of critical load at the point of greatest impact within Lower Derwent Valley SAC/Ramsar and Brighton Meadows SSSI. The PC for the Derwent Ings SSSI component of Lower Derwent Valley SAC/Ramsar reduces to a maximum of 1.39% of critical load. The maximum cumulative PC for Barn Hill Meadows SSSI (which does not form part of the Lower Derwent Valley) is reduced to a maximum of 1.55% of critical load.</p> <p>In response to the comments in the Natural England Relevant Representation, the Applicant presented information on the historic reductions in acid deposition across the UK and regionally, that have occurred since the 1970s. The Applicant also highlighted the reductions in SO₂ emissions from Drax Power Station. These include a reduction of mass emissions of SO₂ from approximately 35 kilotonnes in 2012 to approximately 5 kilotonnes in 2020. This is set out in row 5.31 of the Applicant's Responses to Relevant Representations and Additional Submissions (AS-038).</p> <p>The Applicant also notes that the UK has now made significant progress towards achieving targeted reductions in national SO₂ emissions. Under the Convention on Long Range Transboundary Air Pollution (CLRTAP) and</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>National Emissions Ceiling Regulations (NECR), the UK has set targets to reduce SO₂ emissions by 59 per cent compared to 2005 emissions by 2020, and by 88 per cent compared to 2005 emissions by 2030³. The 2020 target was achieved with headroom. Data from 2020 indicates that UK emissions of SO₂ were 83% lower than in 2005, with mass emissions of 0.79 million tonnes in 2005 compared to 0.136 million tonnes in 2020. Based on the trajectory to date the UK seems likely to achieve the 2030 target. Reductions in SO₂ emissions will lead to a corresponding reduction in the contribution of SO₂ to acid deposition in the UK. As these are national targets which do not assess regional variation, the trend cannot be fully applied at a regional or local level. The Applicant is not aware of any regional or local initiatives to reduce acid deposition, SO₂ emissions, or emissions of other potentially acidifying pollutants. Whilst there seems likely to be further reductions in acid deposition arising from national reductions in SO₂ emissions in the period to 2030, these cannot be extrapolated to comparable reductions across Lower Derwent Valley or other designated sites with confidence. The Applicant therefore considers that whilst national reductions in SO₂ emissions to 2030 may contribute to continued reductions in acid deposition over Lower Derwent Valley and the other designated sites considered, this is not certain and should not be relied on solely when considering the potential for AEOI. However, in combination with the other sources of information referred to in this response and the HRA Report (APP-185, to be updated for Deadline 2), provides additional support to the finding of no AEOI.</p> <p>In response to the Natural England RR and additional discussions taking place via Natural England's Discretionary Advice Service, the Applicant has also completed site surveys of parts of the Lower Derwent Valley SAC/Ramsar (Brighton Meadows and Derwent Ings SSSI underpinning sites). The survey work was focussed on inspections of habitats associated with the River Derwent SAC, but also gathered incidental habitat information from within and adjacent to the Lower Derwent Valley designations, including assessment of Lower Derwent Valley SAC qualifying interest habitats. A technical note reporting the outcomes of the survey is provided in Appendix 7 to the HRA Report (document reference 6.8.3.7).</p> <p>The survey work was completed outside the optimal period for botanical survey. It was therefore not possible to gather comprehensive habitat and species data. A number of botanical species could though still be identified. The survey data (see Table 1 in the Technical Note) found evidence of agricultural improvement within a number of field units within and bordering the Lower Derwent Valley. The evidence of agricultural improvement suggests the surveyed locations are likely to be relatively insensitive to additional aerial nitrogen and acid deposition inputs.</p> <p>The applicant is also completing additional analysis of long term monitoring data for the Brighton Meadows SSSI component of the Lower Derwent Valley. This dataset includes extensive habitat, species, and soil data. The Applicant will submit this additional analysis into the Examination at the earliest opportunity, and is intending to submit this at Deadline 3.</p> <p>As set out above, Natural England advised in their Relevant Representation that evidence relating to the 'characteristics and specific environmental conditions' at Lower Derwent Valley (and underpinning SSSI) be considered. The Applicant expects to present information relevant to this point in their analysis of the Brighton Meadows SSSI long term monitoring data, to be submitted subsequently.</p> <p>The Applicant would also highlight that SSSI condition monitoring data for the Brighton Meadows SSSI dating from 1998 to 2018 has found all units of the SSSI to be in favourable condition. The Applicant recognises Natural England's advice (received via DAS 16 December 2022) that '<i>NEs SSSI monitoring does not explicitly account for air quality pressures, so a "favourable" condition does not imply that there is no air pollution threat, or that air pollution has not had any impact on the site/habitats...</i>'.</p> <p>The Applicant nevertheless notes that the definition of 'Favourable Condition' for SSSI is as follows: '<i>The designated feature is being adequately conserved and the results from monitoring demonstrate that the feature is meeting all the mandatory site-specific monitoring targets set out in the Favourable Condition Tables (FCT). The FCT sets the minimum standard for favourable condition for the designated feature and there may be scope</i></p>

³ <https://www.gov.uk/government/statistics/emissions-of-air-pollutants/emissions-of-air-pollutants-in-the-uk-sulphur-dioxide-so2>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p><i>for the further (voluntary) enhancement of the feature⁴</i>. Whilst the achievement of favourable condition does not explicitly account for air quality pressures as noted by Natural England, it does identify that <i>'the designated feature is being adequately conserved'</i>, which is relevant to the assessment of the <i>'characteristics and specific environmental conditions'</i> of the Lower Derwent SAC.</p> <p><u>Thorne Moor SAC (and underpinning SSSI)</u></p> <p>At the time of submitting the DCO application, the Proposed Scheme alone was predicted to generate a Process Contribution (PC) for acid deposition of up to 1.3% of critical load, prior to the application of emissions abatement mitigation (see paragraph 3.5.44 of the application HRA Report (APP-185). With operational emissions abatement applied, the impact of the Proposed Scheme alone was modelled to reduce to 0.7% of critical load (see Table 4.16 in the HRA Report).</p> <p>As described above and set out in detail in Appendix 5, the Applicant has subsequently updated the dispersion modelling for the Proposed Scheme to account for updated operational emissions abatement of SO₂ and to reflect the updated approach to the treatment of Keadby 2. With these updates, the Proposed Scheme alone generates a maximum PC of 0.60% of critical load, i.e. under the 1% significance screening criteria (see Appendix 5 (Air Quality Technical Note 2) (document reference 8.9.5)). The updated impact of the Proposed Scheme alone with mitigation, therefore, still does not trigger the criteria for a likely significant effect and can be ruled out of further investigation on numerical grounds alone.</p> <p>At the time of submitting the DCO application the Proposed Scheme and other plans and projects (see paragraph 6.5.27 of ES Chapter 6 (Air Quality)) were predicted to generate a cumulative Process Contribution (PC) for acid deposition of up to 2.3% of critical load, prior to the application of emissions abatement mitigation (see Table 6.22 of the ES Chapter 6 (Air Quality)). With operational emissions abatement applied, the impact of the Proposed Scheme and other plans and projects was modelled to reduce to 1.9% of critical load.</p> <p>With the updates to the dispersion modelling as detailed in Appendix 5, the cumulative PC is reduced further to a maximum of 1.49% of critical load at the point of greatest impact within Thorne Moor SAC/Thorne, Crowle, and Goole Moors SSSI.</p> <p>The updates to the dispersion modelling also lead to changes in the modelled rate of nitrogen deposition and ammonia (NH₃) concentrations for Thorne Moor.</p> <p>At the time of submitting the DCO application the Proposed Scheme and other plans and projects were predicted to generate a cumulative Process Contribution (PC) for nitrogen deposition of up to 1.8% of critical load (see Table 6.21 of the ES Air Quality chapter). With the updates to the dispersion modelling as set out in Appendix 5, the cumulative PC for nitrogen deposition is reduced to 1.25% of critical load.</p> <p>At the time of submitting the DCO application the Proposed Scheme and other plans and projects were predicted to generate an in-combination Process Contribution (PC) for NH₃ concentrations of up to 1.1% of critical level (see Table 6.20 of the ES Chapter 6 (Air Quality)). With the updates to the dispersion modelling as set out in Appendix 5, the cumulative PC for NH₃ is reduced to 0.58% of critical level. The updated impact of the Proposed Scheme and other plans and projects therefore no longer triggers the criteria for a likely significant effect and can be ruled out of further investigation on numerical grounds alone.</p> <p>The Applicant would also highlight that the text on acid deposition provided above in relation to the Lower Derwent SAC/Ramsar and underpinning SSSI (and Barn Hill Meadows SSSI) is also relevant to the assessment of acid deposition for Thorne Moor. There has been a declining trend in acid deposition reported for Thorne Moor on APIS between 2005 to 2016⁵. APIS also reports an increase in acid deposition for the three year periods around mid-years 2018 and 2019. Part of this increase is understood to be related to a change in the</p>

⁴ Natural England (2019). Natural England Standard: SSSI Monitoring, Assessment and Reporting

⁵ [APIS app | Air Pollution Information System](#)

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>methodology used by APIS for data presented for mid-year 2019. As highlighted by Natural England, the data does not support a consistent downward trend in acid deposition in recent years.</p> <p>The Applicant has also provided additional information considering the applicability of Natural England published research on incremental effects of nitrogen deposition on habitats⁶. This was provided in Row 5.32 of Table 5 of the Applicant's Responses to Relevant Representations and Additional Submissions (AS-038). The Applicant used data presented in Table 22 of the Natural England published research to add to the assessment presented in the submission HRA Report. This provides a summary of relationships between long term nitrogen deposition and changes in species cover or probability of presence, for five species commonly associated with bog habitats.</p> <p>Natural England have since provided the Applicant with additional advice and raised the following queries in relation to this additional information. This has been provided to the Applicant via Natural England DAS advice, received on the 16 December 2022.</p> <p>In particular, Natural England noted the following:</p> <p><i>'...Further information from NECR210 is provided in the response to our Relevant Representations relating to five species commonly associated with bog habitats, indicating that the additional deposition predicted as a result of the BECCS (0.09 kgN/ha/yr), would result in changes in species cover or probability of presence between -0.0054% and +0.108%. It is concluded that this change would result in a negligible and imperceptible effect on the degraded raised bog vegetation communities within Thorne Moor SAC... However, no additional evidence is used in the assessment to assess the potential impact of the project on Thorne Moor SAC specifically. For example, NECR210 assumed a maximum species richness of 32 – and the applicant's calculations have relied on this species richness. It is not clear whether Thorne Moor SAC reflects this indicative species richness, or that the "five indicative species" in Table 22 of NECR210 are present at Thorne Moor...'</i></p> <p>The Applicant would highlight that with the updates to the dispersion modelling as presented in Appendix 5, the maximum additional in-combination deposition predicted reduces from 0.09kgN/ha/yr to 0.06kgN/ha/yr. Updating the extrapolation of the NERC210 Table 22 data to reflect the updated dispersion modelling, changes in species cover or probability of presence between -0.0036% and +0.072% are predicted. The Applicant would maintain that changes of this order of magnitude are imperceptible and inconsequential for overall habitat condition, as are the changes predicted against the previous deposition rate of 0.09 kgN/ha/yr. This level of potential change is not considered to pose a credible risk of harm to Thorne Moor SAC/Thorne, Crowle and Goole Moors SSSI, or to the achievement of the SAC conservation objectives.</p> <p>In response to the specific queries raised by Natural England, the Applicant would highlight the following:</p> <ul style="list-style-type: none"> i) The Applicant used a species richness of 32, as this was the highest recorded species richness from any of the studies referred to in the NERC210 report. The Applicant does not hold detailed botanical survey data for Thorne Moor, and has been unable to locate any such publicly available data, although has requested this from Natural England. Given the size of the site and its condition (in terms of safe access), it is also difficult to obtain such data with good coverage across the site. Notwithstanding this, the Applicant considers a species-richness of 32 is a reasonable precautionary figure for the purposes of this part of the assessment, as it is easier for species to be lost from a site supporting a diverse range of species including sensitive and representative indicator species, than from a species-poor site where more sensitive species have already been lost. ii) In response to Natural England's query in relation to the 'five indicative species', the Applicant was referring to the following species from Table 22 of NERC210: Hare's-tail cottongrass <i>Eriophorum vaginatum</i>, <i>Cladonia uncialis</i>, <i>Sphagnum fimbriatum</i>, wavy hair-grass <i>Deschampsia flexuosa</i>, and <i>Campylopus introflexus</i>. Citation information from Thorne Moor SAC and data from the Thorne and

⁶ CAPORN, S., FIELD, C., PAYNE, R., DISE, N., BRITTON, A., EMMETT, B., JONES, L., PHOENIX, G., S POWER, S., SHEPPARD, L. & STEVENS, C. 2016. Assessing the effects of small increments of atmospheric nitrogen deposition (above the critical load) on semi-natural habitats of conservation importance. Natural England Commissioned Reports, Number 210.

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>Hatfield Moors Conservation Forum⁷ references the presence of Hare's-tail cottongrass and wavy hair-grass, along with the presence of Sphagnum and Cladonia species. Whilst the Applicant cannot confirm the presence of all the species referred to, a proportion are present and the remainder are considered good indicator species for the habitat types for which the SAC/SSSI are designated.</p> <p><u>In-combination impacts – all designated sites</u></p> <p>As highlighted above and in Appendix 5 the dispersion modelling for in-combination/cumulative impacts has been updated to reflect additional emissions abatement incorporated into the Proposed Scheme by the Applicant, and also to align the modelling with the approach taken for the recently consented and soon to be completed Keady 3 Power Station DCO.</p> <p><u>Summary</u></p> <p>The Applicant has provided the additional information above and in Appendix 5 which it considers collectively further supports the conclusion of no AEOL and no damage to SSSI, reached in the application HRA Report and Ecology chapter of the ES.</p> <p>In summary, the additional information as described above sets out:</p> <ul style="list-style-type: none"> • The further reductions in the air quality impacts from the Proposed Scheme alone and in-combination, as detailed in Appendix 5 to the Applicant's Responses to Examining Authorities First Written Questions (Air Quality Technical Note 2) (document reference 8.9.5); • Reference to the significant declines in national SO₂ emissions and consequent acid deposition; • Survey work completed by the Applicant, as set out in Appendix 7 to the HRA Report (document reference 6.8.3.7); • Additional analysis of Natural England SSSI condition assessment monitoring for Brighton Meadows; • Additional analysis and explanation of the Applicant's use of Natural England Commissioned Research Report 210; • Additional analysis of the timescales for other plans and projects included in the cumulative dispersion (air quality) modelling. <p>The Applicant is seeking to reach agreement with Natural England promptly on those matters that remain outstanding. The Applicant nonetheless recognises that there will be a need to consider further stages of the HRA process if this cannot be achieved, in order to allow these to be considered during the Examination if necessary on a without prejudice basis and is therefore undertaking this work alongside the continued discussions with Natural England. The Applicant notes that it may be helpful for this matter to be discussed at the forthcoming Hearings so all parties can understand Natural England's likely position moving forward.</p>
BIO.1.30	NE	The ExA notes that Section 3 of the HRAR concludes that there could be an LSE on the Lower Derwent Valley SPA/ Ramsar and the Humber Estuary SPA/ Ramsar in relation to loss of FLL in the Off-site Habitat Provision Area (in addition to the Habitat Provision Area) but that the information to inform appropriate assessment contained in Section 4.2 does not include an assessment in respect of that area. The ExA welcomes the commitment in point 5.14 of AS-038 that an	The Applicant wishes to highlight that this matter is now identified as agreed in the SoCG with Natural England (Rev 2 – Feb 2023) (REP-020). The Applicant can also confirm that updated text on this matter will be provided in the update HRA to be submitted for Deadline 2 (APP-185, Rev02).

⁷ [REDACTED]

ExA Ref.	Addressed to	Question	Applicant's Response
		<p>updated HRAR will be provided that contains the additional information provided therein. Similarly, NE raised concerns about such impacts on a number of SSSIs. Please can NE comment on whether the additional information provided sufficiently addresses its concerns about this matter.</p>	

4. TOPIC 4 CLIMATE CHANGE

Table 4.1 – Climate Change

ExA Ref.	Addressed to	Question	Applicant's Response
CC.1.1	Applicant	Given the uncertainty over the Proposed Development's operational lifespan, can the Applicant justify the use of the 25-year design life for the purposes of the climate change resilience assessment or provide an updated assessment which accounts for the potential continuation of operation beyond 25 years.	The response to this question is provided in question EN.1.8, see Appendix 4 (Note in relation to WQ EN1.8 25 Year Design Life) (document reference 8.9.4) in the section on Climate Change.
CC.1.2	Applicant	Could the Applicant please respond to Climate Emergency Planning and Policy who, in its RR [RR-017], raised concern over the method of accounting for biomass supply chain GHG emissions.	<p>1(a) Upstream logging and transport emissions from feedstock production are included within the assessment (See Plate 15.1 of Chapter 15 (Greenhouse Gases) (APP-051)).</p> <p>1(b) Upstream land use change emissions are included within the assessment. These were within scope of the supply chain emissions calculations that were third party verified by Bureau Veritas that form the basis for the supply chain part of the GHG assessment (see 15.5.45. point K of Chapter 15 (Greenhouse Gases)). These were zero because there are no land use change emissions associated with the sourcing of biomass, in line with Guidance for reporting under the UK Renewables Obligation Order 2015 (as amended). No additional commercial forestry areas are expected to be developed due to the Proposed Development.</p> <p>1(c) The assessment of cumulative effects is covered in section 15.12 of Chapter 15 (Greenhouse Gases). The impact of GHGs is cumulative in nature – the impact is due to all human global emissions in aggregate. When undertaking an assessment, a boundary is needed in terms of the proposed development and its impact within the context of global human total cumulative impact. This has been done for the Proposed Scheme by assessing the baseline against a “do something” scenario on a whole life basis (in line with Schedule 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017;</p> <p><i>“3. A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of environmental information and scientific knowledge.</i></p> <p><i>4. A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.”</i></p> <p>There are no specific requirements in terms of how the boundary should be set for cumulative effects. For the Proposed Scheme the impact was assessed with reference to Selby's emissions, emissions from North Yorkshire, the UK's emissions, and the UK's Carbon budgets (see tables 15.5, 15.7, 15.13, and 15.14 of Chapter 15). This is considered appropriate because local, regional and national emissions have been considered. This has been done using a reliable data set published by BEIS. In addition, the UK carbon budgets are budgets that are legislated for, within which future UK emissions are constrained and so provide a realistic scenario of likely cumulative outputs (i.e. that is what the UK's cumulative projects and activities will be aiming</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>for in its carbon emissions). These therefore represent the best available contextual information for cumulative emissions to be considered within. It should also be noted that “<i>the overarching “East Coast Cluster” (ECC)</i> is designed to reduce emissions in line with the UK Government’s Net Zero target and so any cumulative carbon impacts would be positive, and BECCS technology is a key part of the Climate Change Committee’s balanced pathway through the carbon budget periods to a net zero UK.</p> <p>3 – As stated above there are no specific requirements in terms of how the boundary should be set for cumulative effect. For the Proposed Scheme the impact was assessed with reference to Selby’s emissions, emissions from North Yorkshire, the UK’s emissions, and the UK’s Carbon budgets (see tables, 15.5, 15.7, 15.13, and 15.14). In addition it should be noted that “<i>the overarching “East Coast Cluster” (ECC)</i> is designed to reduce emissions in line with the UK Government’s Net Zero target.</p> <p>4 – Chapter 15 (Greenhouse Gases) of the ES has been undertaken in-line with the Institute of Environmental Management & Assessment (IEMA) “Assessing greenhouse gas emissions and evaluating their significance” (2022). The significant whole life carbon impacts of the project have been quantified, these emissions have been contextualised with UK carbon budgets, emissions from Selby and North Yorkshire (see Table 15.14 of Chapter 15 (Greenhouse Gases)). The conclusion of significance has then undertaken in line with the IEMA guidance (section 5, page 25) statement that Significant (beneficial): applies to “<i>a project that causes GHG emissions to be avoided or removed from the atmosphere. Only projects that actively reverse (rather than only reduce) the risk of severe climate change should be considered to have a beneficial effect</i>”.</p> <p>The Applicant has responded in relation to points 1-4 and points 5 and 6 of the RR are not deemed to be relevant to the question, however, the Applicant’s previous response to these points can be found in the Responses to Relevant Representations (PDA-002) in Table 16.1 (row 16.1) and 17.1 (row 17.2) respectively.</p>
CC.1.3	Applicant	Is it proposed that the metering facilities in Work No. 2(a)(iv) would provide an ongoing monitoring of the % CC efficiency? If so, how would CC efficiency be monitored under the option of Work No. 2(b) where no such metering facilities appear to be included?	<p>The metering facilities identified in Work No. 2(a)(iv) will be utilised for commercial reasons as well as providing data associated with the specification and characterisation of carbon dioxide entering the Transport and Storage network to enable National Grid Carbon Limited to understand the nature and amount of carbon dioxide to be put through their system. Capture efficiency would not be measured at this position within the scheme.</p> <p>Capture efficiency will be measured on a unit basis and would be monitored on either side of the carbon dioxide absorber columns to assist in meeting the monitoring requirements of the Environmental Permit.</p> <p>It is correct that the metering facilities outlined in Work No. 2(a)(iv) will have the capability to provide ongoing monitoring of the carbon capture efficiency.</p> <p>Under the option of Work No. 2(b), the Carbon Dioxide Delivery Terminal Compound will be located outside of the Drax BECCS DCO Order Limits on third party land and be consented under a separate DCO and is therefore outside of the control of the Applicant.</p> <p>Although the Carbon Dioxide Delivery Terminal Compound will be consented differently for the option of Work No. 2(a) and the option of Work No. 2(b), for both options, the compound would be operated by National Grid Carbon Limited.</p> <p>The DCO has been amended at Deadline 2 to provide for (a) the metering facilities referred to in respect of the absorber columns, and (b) to provide for a scenario where the metering facilities are placed on the pipework within the Order limits that connects to a terminal compound outside it (i.e. for Work 2(b)).</p>

5. TOPIC 5 COMPULSORY ACQUISITION AND TEMPORARY POSSESSION

Table 5.1 – Compulsory Acquisition and Temporary Possession

ExA Ref.	Addressed to	Question	Applicant's Response
CA.1.1	Applicant	Please advise whether the BoR is fully compliant with DCLG Guidance ⁸ .	<p>Yes, the Applicant can confirm that the Book of Reference (REP-007) is fully compliant with the DCLG Guidance.</p> <p>Annex D of the DCLG "Guidance related to procedures for the compulsory acquisition of land" sets out the requirements of the Book of Reference defined in the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009.</p> <ul style="list-style-type: none"> • Part 1 should contain the names and addresses for service of each person within Categories 1 and 2 in respect of any land which it is proposed shall be subject to: <ul style="list-style-type: none"> (i) powers of compulsory acquisition; (ii) rights to use land, including the right to attach brackets or other equipment to buildings; or (iii) rights to carry out protective works to buildings; <p>Category 1 persons are the owners, lessees, tenants, or occupiers of land. Category 2 persons are those who have an interest in the land or who have the power to sell or convey the land or release the land.</p> • Part 2 should contain the names and addresses for service of each person within Category 3. These are persons who might be entitled to make a relevant claim if the development consent order were to be made and fully implemented (section 57(4) of the Planning Act). • Part 3 should contain the names of all those entitled to enjoy easements or other private rights over land (including private rights of navigation over water) where these would be extinguished, suspended or interfered with as a result of the provisions in the development consent order for which an application is being made. • Part 4 should specify the owner of any Crown interest in the land which it is proposed to use for the purposes of the development consent order for which an application is being made. • Part 5 should specify land the acquisition of which could be subject to special parliamentary procedure, or which is special category land, or which is replacement land for land being compulsorily acquired. • The descriptions of each plot of land included in parts 1-5 of the book of reference where it is intended that all or part of the proposed development and works shall be carried out, should include the area in square metres of each plot. • Applicants will need to be aware that each part in the book of reference serves a different purpose and persons may need to be identified in one or more parts. For example, a person entitled to enjoy easements or other private rights over land which the applicant proposes to extinguish, suspend or interfere with identified in Part 3 should also be recorded in Part 1 as a person within categories 1 or

⁸ Planning Act 2008, Guidance related to procedures for the compulsory acquisition of land, DCLG, September 2013

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>2 as set out in section 57 of the Planning Act. Part 4 should specify the owner of any Crown interest in land it is proposed to be used for the purposes of the development consent order. Some (although not necessarily all) of these Crown interests may also be identified in the descriptions of land contained in Part 1 which will be subject to powers of compulsory acquisition, rights to use land or rights to carry out protective works to buildings.</p> <ul style="list-style-type: none"> Applicants should not add any further (non-prescribed) parts to a book of reference, for example schedules of statutory undertakers or other like bodies having or possibly having a right to keep equipment on, in or over the land within the order limits. 'Dashes' or other ambiguous descriptions should be avoided. Diligent inquiry should enable applicants to know whether or not such persons have an interest or right in land for the purposes of section 57 and if they are known to applicants the names and addresses should be contained in the relevant part(s) of the book of reference. Where it is proposed to create and acquire new rights compulsorily, they should be clearly identified. The book of reference should also cross-refer to the relevant articles contained in the development consent order. <p>The Applicant has produced a Book of Reference for the Scheme which meets the requirements set out above. (REP-007, a further revised version of which is submitted at this Deadline 2).</p>
CA.1.2	APs/ IPs	Are any APs or IPs aware of any inaccuracies in the BoR [AS-002], SoR [AS-080] or Land Plans [AS-072]? If so, please set out what these are and provide the correct details.	
CA.1.3	Applicant	There are a number of interests identified as 'unknown' in the BoR. Can the Applicant confirm if any further steps will be taken during the Examination to identify any persons having an interest in the land?	<p>The Applicant has undertaken diligent inquiry to identify all persons with an interest in the land that is within the Order limits, as defined under section 44 of the Planning Act 2008. This included a search of the Land Registry records to identify all relevant freehold, leasehold, mortgagee, beneficiary, other charges and restrictive covenant information contained within the titles that are within the Order limits. The Applicant identified a number of areas of land that are unregistered. A Land Registry. Desktop research of these areas of land was undertaken in an attempt to identify any land interests from publicly available sources of information. In addition, whilst undertaking contact referencing via Land Interest Questionnaires (LIQs), enquiries were made with adjacent landowners regarding the unregistered areas of land to determine any possible land interests. Where land ownership could not be ascertained through desktop or contact referencing methods, site notices were erected requesting information about the ownership of the land to which the notices were affixed. The notices showed the land ownership boundary in question and provided details of how to contact the land referencing team and / or the Applicant with any relevant information.</p> <p>The Applicant will be undertaking further searches of Land Registry records during the course of the Examination to determine whether any new registered land interests come to light. Notwithstanding, where these areas of land remain unregistered, the Applicant intends to re-erect site notices for the unknown land interests and will monitor these periodically to replace any that have been removed or defaced.</p>
CA.1.4	Applicant	Can the Applicant explain the rationale for including various plots in the BoR over which the Applicant is not seeking with CA or imposition of rights, eg Plot 01-14.	Plots shown "white" on the Land Plans are plots which are not subject to powers of compulsory acquisition or rights to use land. However, powers to carry out protective works to buildings are sought over these plots (on a precautionary basis and pursuant to Article 33) and so, pursuant to Regulation 7(1)(a)(iii) of the Infrastructure

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (meaning of “book of reference”), those plots must also be included in the Book of Reference.</p> <p>The draft DCO defines “Order land” by reference to the land shown on the Land Plans and described in the book of reference. As a result, powers in the draft DCO in relation to both compulsory acquisition and protective works to buildings relate specifically to the Order land. The Applicant acknowledges that this is a more nuanced position than is currently expressed in paragraph 5.2.2 of the Statement of Reasons; and has updated that paragraph at Deadline 2 to account for this and to reflect the changes it has made to the DCO following the discussions at ISH2 and as mentioned in response to CA1.6 below.</p>
CA.1.5	Applicant/ Statutory Undertakers	<p>The BoR includes a number of Statutory Undertakers with interests in land. The ExA would ask the Applicant to:</p> <p>i. provide a progress report on negotiations with each of the Statutory Undertakers listed in the BoR, with an estimate of the timescale for securing agreement with them; and</p> <p>ii. state whether there are any envisaged impediments to the securing of such agreements.</p>	<p>i. The Applicant has provided a new Table 2-2 in the Schedule of Negotiations and Powers Sought at Deadline 2, to provide the ExA with a progress report on the status of negotiations with each of the Statutory Undertakers listed in the Book of Reference. The currently submitted version of this document, which does not yet include this Table is at REP-005.</p> <p>ii. The Applicant is negotiating protective provisions with National Grid as electricity and gas undertaker (NGET), National Grid Carbon Limited and National Highways. Discussions are ongoing and the Applicant expects agreement to be reached in each case during the course of the Examination. The Applicant notes this was confirmed by representatives for NGET and National Grid Carbon Limited during the course of Issue Specific Hearing 2.</p>
CA.1.6	Applicant	<p>Can the Applicant explain in more detail the need for CA of new rights and the need to extinguish existing rights set out in paragraph 2.3.2 and 5.3.4 of the SoR.</p>	<p>Article 20 (Compulsory acquisition of rights) enables the undertaker to acquire rights or impose restrictive covenants over the Order Land as may be required for the authorised development or to facilitate it, or as is incidental to it. The Article provides that, in respect of the Order Land set out in Schedule 8, the undertaker's powers of acquisition of new rights and imposition of restrictive covenants are limited to the purposes set out in that Schedule.</p> <p>The powers to acquire new rights sought in Article 20 relate to the plots shaded blue on the Land Plans.</p> <p>The new rights are required with respect to:</p> <ol style="list-style-type: none"> 1. Work No. 1F and 3 infrastructure – which requires the installation, retention and maintenance of electrical connections (Work No. 1F) over National Grid Electricity Transmission's land. Supporting works in connection with Work No. 1F (being Work No. 3) would also be undertaken over National Grid's land, and rights are sought in order to facilitate that as well. 2. Work No. 6 – this is the habitat provision area requiring landscaping, enhancements and fencing, gates, boundary treatment and other means of enclosure. Rights are sought over land to undertake this planting, creation of accesses and rights for the undertaker to pass over this land in order to instal, retain and maintain the planting. These rights are generally sought over very narrow plots of land to the north of the Order limits, in order to ensure appropriate mitigation and / or biodiversity net gain can be delivered. 3. Work No. 8A – rights are required for and in connection with the diversion of existing 11kV overhead lines, and to facilitate access to undertake the works and then retain and maintain the installed or relocated overhead lines or new sections of overhead lines. Where appropriate, rights are only sought with respect of access in connection with these works.

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>4. Work No. 8B – rights are required for and in connection with the diversion of existing overhead lined, and to facilitate access to undertake the works and then retain and maintain the relocated overhead lines or new sections of overhead lines.</p> <p>The Applicant will only acquire rights that are needed to deliver the Scheme. The Applicant has been able to avoid acquiring land with respect to any of the above works, in order to minimise the extent of compulsory acquisition. At detailed design stage, in some cases the Applicant expects to further refine the area of land over which it requires rights. The Applicant is seeking to acquire the land it requires for the Scheme by agreement, but it is also seeking compulsory acquisition powers as a fall-back position in case negotiations are unsuccessful. This position is very well preceded in a wide range of made development consent orders.</p> <p>With respect to extinguishment of rights, as explained in paragraph 5.3.3 of the Statement of Reasons (which we assume the question is intended to refer to), the Applicant has included powers in the Order to ensure that easements, restrictions and other private rights identified as affecting the land can be extinguished or suspended, so as to facilitate the construction and operation of the Proposed Scheme without hindrance.</p> <p>Whilst these powers relate to all the Order Land, for the land shown green on the Land Plans the Applicant proposes to <u>only</u> extinguish certain easements, servitudes, and other private rights, and no acquisition of new rights is sought. The green plots where extinguishment is sought fall into two categories:</p> <ol style="list-style-type: none"> 1. The land forming part of the Drax Power Station Site – this land is within the ownership of the Applicant. However, the title may contain certain easements that could be incompatible with the construction and operation of the Proposed Scheme. There are existing companies occupying the Drax Power Station Site. These parties all provide some form of service to or are a customer of Drax at the Existing Power Station and have service agreements or similar arrangements with Drax. As this involves some form of occupancy of land, there is the potential for there to be a landlord and tenant arrangement between the Applicant and the company. As such, each company has been identified as having a Category 1 interest as a precaution (and will be subject to Works 1-4). The Applicant does not seek powers to acquire land or new rights with respect to this interest. Powers sought relate only to extinguishing existing rights which would interfere with the construction and operation of the Proposed Scheme. The Applicant anticipates being able to manage the interface with these parties through the existing contractual arrangements between the parties, and the powers to extinguish rights are sought as back up only. 2. The diversion of existing electrical 11kV overhead lines and the diversion of the existing telecommunications overhead line to facilitate the delivery of abnormal indivisible loads to the site will require the removal of sections of existing electrical 11kV overhead line and telecommunications overhead line over which it is proposed to extinguish existing easements relating to those lines. The relevant plots are set out in Schedule 8 to the Order. These rights are replaced by the diverted route of the OHLs, as set out in the other rows in Schedule 8. . <p>Upon further review, and as foreshadowed at ISH, the Applicant has also been considering the drafting of the aforementioned articles in light of the powers sought in Schedule 8 and the explanation above, and has updated them in the DCO submitted at Deadline 2.</p> <p>The Applicant is unclear in terms of the reference to paragraph 2.3.2 of the Statement of Reasons. The Applicant would be happy to address any specific points the reference was intended to highlight.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
CA.1.7	Applicant	<p>Part 2 of the BoR lists 'Category 3' persons. The Applicant is asked to:</p> <p>i. provide further detail/ justification of how it has identified such Category 3 parties for the purposes of the BoR; and</p> <p>ii. clarify if there are there any other persons who might be entitled to make a relevant claim if the DCO were to be made and fully implemented and should therefore be added as Category 3 parties to the BoR? This could include, but not be limited to, those that have provided representations on, or have interests in:</p> <ul style="list-style-type: none"> • noise, vibration, smell, fumes, smoke or artificial lighting; • the effect of construction or operation of the Proposed Development on property values or rental incomes; • concerns about subsidence or settlement; • claims that someone would need to be temporarily or permanently relocated; • impacts on a business; • loss of rights, eg to a parking space or access to a private property; • concerns about project financing; • claims that there are viable alternatives; or • blight. 	<p>The Applicant undertook diligent inquiry to identify all persons within Categories 1, 2 and 3, as defined in sections 44 and 57 of the Planning Act 2008 where:</p> <ul style="list-style-type: none"> • Category 1 includes owners, lessees, tenants and occupiers of the land within the Order limits. • Category 2 includes parties that are interested in the land or have the power to sell, convey or release the land within the Order limits. • Category 3 includes parties who the Applicant thinks would or might, if the Order sought by the application were made and fully implemented, be entitled to make a relevant claim for compensation under section 10 of the Compulsory Purchase Act 1965 and/or Part 1 of the Land Compensation Act 1973 and/or section 152(3) of the Planning Act 2008. <p>Category 3 persons are those with potential claims under the above legislation should the Scheme be carried out. They mainly relate to those whose land may be injuriously affected (i.e. its value would be diminished) as a result of the Scheme, although the land in question is not acquired outright.</p> <p>In assessing potential claimants under Part 1 of the Land Compensation Act 1973 and/or section 152(3) of the Planning Act 2008, physical factors and the impact of the Scheme were considered, including properties identified as a receptor as a consequence of the property being located outside the DCO limits but close to the Drax Power Station site. This included properties on the eastern side of the village of Barlow, predominantly along Park Lane, Stable Road, and Hunters Walk, as well as properties in Camblesforth, predominantly along Brigg Lane.</p> <p>In order to identify potential Category 3 persons who may be entitled to make a claim pursuant to section 10 of the Compulsory Purchase Act 1965, a desk-based assessment was carried out to identify properties with a potential claim.</p> <p>The Applicant's land referencing team were provided with guidance from environmental specialists involved in the compilation of the Environmental Statement. This guidance was based on the topography of the land and the likely significant effects arising from the Scheme. For example, the noise assessments had regard to information available at that time regarding:</p> <ul style="list-style-type: none"> • Background noise levels; and • Distances to receptors. <p>Based on the above information, professional judgement was used to ascertain whether a person may have a relevant claim for compensation under section 57(4) of the Planning Act 2008, based on a worst-case assessment.</p> <p>The above process for identifying Category 3 persons was also carried out for the new areas of land that were added to the Order limits as a result of the Change Request Application.</p> <p>The Applicant does not anticipate that any further Category 3 persons will be added to the Book of Reference.</p>
CA.1.8	RPAs	<p>Are the RPAs in their role as the LPA and the Highway Authority aware of:</p> <p>i. any reasonable alternatives to CA or TP sought by the Applicant; and</p>	

ExA Ref.	Addressed to	Question	Applicant's Response
		ii. any areas of land or rights that the Applicant is seeking the powers to acquire that they consider would not be needed?	
CA.1.9	Applicant	<p>i. Please could the Applicant summarise where it has not yet been able to identify any persons having an interest in the land, including any rights over unregistered land?</p> <p>ii. What further steps will the Applicant be taking to identify any unknown rights during the Examination?</p>	<p>The Applicant provides the following summary where it has not yet been able to identify persons having an interest in the land, including any rights over unregistered land:</p> <ul style="list-style-type: none"> • The Order land includes a number of Land Registry titles where the mines and minerals have been excluded from the freehold title i.e. Book of Reference plots: 01-06, 01-10, 01-16, 01-23, 01-27, and 01-31. In these instances, the Applicant has included an unknown interest to cover any potential subterranean interests in the mine and minerals beneath the land. • The Order land includes a number of public highways that are unregistered in Land Registry. Book of Reference plots: 01-07, 01-12, 01-14, 01-21, 01-28, 01-29, 01-33, 01-34, 01-35, 01-55, 01-80, 01-81, 01-82, 01-85, 01-86, 01-89, 01-90, 01-91, 01-92, 01-103, and 01-112. These public highways form part of the local road network and are owned and maintained by the respective highway authorities, North Yorkshire Country Council and East Riding of Yorkshire County Council. Although it is generally accepted that the respective highway authorities own and maintain the unregistered public highway, the Applicant has adopted a cautionary approach and also included an unknown interest in these plots to cover the fact that the freehold title is unregistered. In addition, the Applicant has also included the landowners of the adjacent properties fronting the unregistered public highway in respect of their interest in the subsoil up to the half width of the unregistered public highway as per the 'ad medium filum viae' rule. The Applicant does not intend to erect further Unknown Site Notices for these plots which are clearly part of the public highway. • There are a number of other plots listed in the Book of Reference, whereby despite the Applicant undertaking diligent inquiry it has not been possible as yet to identify a landowner. Book of Reference plots: 01-08, 01-41, 01-105, and 01-106. <p>The process for undertaking further diligent inquiry for any unknown land interests has been set out in the response to CA1.3 above.</p>
CA.1.10	Applicant	<p>The Applicant is asked:</p> <p>i. to clarify how it has had regard to the Equalities Act 2010 in relation to the powers sought; and</p> <p>ii. have any APs been identified as having protected characteristics? If so, what regard has been given to them?</p>	<p>The Applicant notes that the Public Sector Equality Duty (pursuant to section 149 of the Equality Act 2010) is a duty on public authorities to have "due regard" to the requirements of the Equality Act 2010. Drax, as the Applicant, is not a public body subject to the Public Sector Equality Duty and is therefore not subject to the duty. In any event, the Applicant has considered this in response to the question, to inform the consideration of the Application by the Secretary of State and its fulfilment of the Public Sector Equality Duty.</p> <p>The Order, if made authorising compulsory acquisition powers, is not expected to hinder the need to advance equality of opportunity between persons who share a relevant protected characteristic. The exercise of the compulsory acquisition powers sought by the Applicant is not anticipated to disadvantage persons sharing a protected characteristic given that:</p> <ul style="list-style-type: none"> - The Application does not seek compulsory acquisition of land, and does not require the outright acquisition of any residential dwelling-houses; and

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>- Similarly, the exercise of compulsory acquisition powers does not impact upon community facilities used by people with protected characteristics.</p> <p>The Applicant has not been notified that any of the persons with land interests with whom it is discussions share protected characteristics.</p> <p>There is no basis on which to suggest that those persons with protected characteristics would be impacted differently from others as a result of the compulsory acquisition powers sought in the Application.</p>
CA.1.11	APs	Do any APs have any concerns that they have not yet raised about the legitimacy, proportionality or necessity of the CA or TP powers sought by the Applicant that would affect land that they own or have an interest in?	
CA.1.12	Applicant/ Statutory Undertakers	<p>The BoR includes a number of Statutory Undertakers with interest in land and equipment that would be affected by CA/ TP. Please could the Applicant:</p> <p>i. provide a progress report on negotiations with the Statutory Undertakers listed in the BoR, with an estimate of the timescale for securing agreement with them;</p> <p>ii. state whether there are any envisaged impediments to the securing of such agreements; and</p> <p>iii. state whether any additional Statutory Undertakers have been identified since the submission of the BoR and whether the latest version of the BoR includes any recently identified Statutory Undertakers.</p> <p>A number of Statutory Undertakers [RR-022 and RR-052] have commented on Protective Provisions. Please could Statutory Undertakers:</p> <p>iv. provide copies of preferred wording and explain, where relevant, why you do not consider the wording as currently drafted to be appropriate.</p>	<p>The Applicant has provided a response to items (i) and (ii) in the response to written question CA.1.5 above.</p> <p>In response to item (iii) the latest version of the BoR (current submitted version REP-007) submitted at Deadline 2 contains details of all Statutory Undertakers with an interest in land within the Order limits. The status of engagement with these Statutory Undertakers is also detailed in Table 2-2 of the Schedule of Negotiations and Powers Sought (current submitted version REP-005)</p> <p>In response to item (iv) the Applicant notes that it is currently negotiating protective provisions with National Grid as electricity and gas undertaker, National Grid Carbon Limited and National Highways, and in each case is in receipt of the preferred form of wording of protective provisions. The dDCO will be updated during the course of the Examination when protective provisions have been agreed.</p>
CA.1.13	Applicant	Where a representation is made by a Statutory Undertaker under section 127 of the PA2008 and has not been withdrawn, the SoS would be unable to authorise powers relating to the Statutory Undertaker land unless satisfied of specified matters set out in section 127. If the representation is not withdrawn by the end of the Examination, confirmation would be needed that the 'expedience' test is met. The SoS would also be unable to authorise removal or	The Applicant is in discussions with the statutory undertakers who have made representations to the Examination. The Applicant is confident of reaching agreement with those statutory undertakers with respect to protective provisions, and anticipates being able to update the draft DCO, during the course of the Examination, with protective provisions that are agreed between the relevant parties. With those protections in place, the Applicant expects there to be adequate protection for statutory undertakers' assets in the draft DCO, and accordingly, that the statutory undertakers will not suffer serious detriment to the carrying on of their undertaking. As a result, the Applicant anticipates any objections from statutory undertakers would be withdrawn once agreement is reached. If that is not the case, the Applicant would propose submitting

ExA Ref.	Addressed to	Question	Applicant's Response
		repositioning of apparatus unless satisfied that the extinguishment or removal would be necessary for the purpose of carrying out the development to which the Order relates in accordance with section 138 of the PA2008. Justification would be needed to show that extinguishment or removal would be necessary. Please indicate when, if the objections from Statutory Undertakers are not withdrawn, this information would be submitted into the Examination.	information as to why powers with respect to statutory undertaker land should be authorised at the final deadline of the Examination.
CA.1.14	Applicant/ APs/ IPs	Do you consider all potential impediments to the development have been properly identified and addressed? Additionally, are there concerns that any matters, either within or outside the scope of the dDCO, that would prevent the development becoming operational or may not be satisfactorily resolved? This includes matters related to acquisitions, consents, resources or other agreements.	<p>The Applicant considers that all potential impediments to the development have been identified and addressed. To the extent there are agreements or consents outstanding, the Applicant is confident that those agreements or consents will be obtained and will not pose an impediment to the development.</p> <p>With respect to acquisitions, the Applicant is in discussions with persons with an interest in land as recorded in the Schedule of Negotiations and Powers Sought [REP-005]. Whilst the Applicant is confident of reaching agreement with such persons, as explained in the Statement of Reasons [AS-080], it has also sought powers of compulsory acquisition to be exercised in the event agreement is not reached, or there is any breach of an agreement entered into, in order not to impede the delivery of the Scheme.</p> <p>With respect to other consents and licences, the Other Consents and Licences document [APP-035] has been updated at this Deadline 2, to provide an update with respect to the various consents and licences that are required to deliver the project. Whilst many of these cannot be obtained until post-consent, it is not expected that obtaining such consents will pose an impediment to the Scheme, given that the vast majority of the consents are typical of major projects. As discussed at the Hearings, the Applicant is working with the EA to ensure that its permit application is successful.</p> <p>The Applicant is not aware of any issues associated with resources or other agreements that would impede the Scheme's delivery.</p>
CA.1.15	Applicant	<p>Consent is required for any provision in the DCO which would relate to Crown land or rights benefiting the Crown in accordance with s135(2) of the PA2008. Among other things this includes consent for any TP sought over Crown land.</p> <p>i. The SoR advises that you have begun the process of seeking to obtain the relevant consents as required under s135 of the PA2008. Can you provide an update on where these discussions are and whether agreement will be reached before the close of the Examination?</p> <p>ii. Can you confirm whether any land that would be subject to escheat is included within the Order Limits?</p>	<p>The Applicant confirms in response to item (i) that initial contact with the Crown interest (DfT and NH) has been made.</p> <p>The Applicant was in discussions with both the DfT and National Highways regarding land ownership and these parties confirmed by email on 10/02/23 that the land forms part of a de-trunked road (a section of the A614) and as such the land is now owned by the local highway authority – in this case ERYC. The Applicant is following this matter up with ERYC and will provide a further update at Deadline 3.</p> <p>The land is therefore no longer considered to be Crown Land, and the Book of Reference and related plan AS-075, as well as the Statement of Reasons and dDCO are being updated for Deadline 2 to remove the reference to Crown Land.</p> <p>The Applicant confirms that no land is included within the Order limits that would be subject to escheat.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
CA.1.16	Applicant	<p>Proposed Change 02 of the change request involves additional order land over which it is proposed to compulsory acquire rights.</p> <p>i. Have Northern Power Grid and Openreach confirmed that the undergrounding of the electrical and telecommunications wires is the only option to allow for the delivery of AILs?</p> <p>ii. Are there any reasonable alternatives?</p> <p>iii. If undergrounding is not the only option, would the amount of land needed be the same?</p>	<p>The Applicant has considered routes for the transportation of AILs to the Site during the construction phase of the Proposed Scheme. Such AIL movements are required in the context that paragraph 3.6.2 of Chapter 3 (Consideration of Alternatives) of the ES (APP-039) states that both rail and water were considered for AIL movements and discounted. Further, paragraph 5.2.27 of Chapter 5 (Traffic and Transport) of the ES (APP-041) states that suitable access already exists via the highway network.</p> <p>As set out in the Proposed Changes Application Report (AS-045), and the Statements of Common Ground (SoCG) between Drax Power Limited and National Highways (AS-034) and East Riding of Yorkshire (AS-036), both parties acknowledge that AIL movements are necessary and will need to be managed pursuant to the measures in the Outline Construction Traffic Management Plan (CTMP). The SoCG with ERYC also states that ERYC agree with the Applicant's position with regards to AILs in respect to the selected route and the outline process set out in the CTMP. It is stated that discussions will continue between the parties to ensure the practical implementation of the measures discussed in the CTMP.</p> <p>The Applicant has considered alternative routes for transporting AILs to the Site and concluded that the identified route is appropriate and this is supported both by NH and ERYC. Therefore, in order to avoid conflict between existing overhead lines and the AILs, there is a need to undertake some works to the lines.</p> <p>The Applicant has identified that the lines the subject of proposed works in PC-02 all oversail the highway and hang below the minimum clearance height necessary for the maximum height of the AIL deliveries, which is around 12m (which may vary slightly depending on very localised ground levels as the vehicle passes underneath).</p> <p>The Applicant has identified the land required and powers sought to address the conflict with overhead lines on the basis of specialist's technical advice on a range of potential design solutions that are potentially available to the asset owner based on the specialists' previous experience. The land identified in the Order Limits as part of the Proposed Changes Application provides a 'worst case' option in terms of land required to undertake the works to move the overhead lines out of the way because it covers a range of potential installation methodologies.</p> <p>The Applicant has discussed alternatives with the respective asset owners regarding potential options for temporarily or permanently moving the lines out of the way to enable the AIL deliveries. The asset owners are designing their preferred solution for each asset and in doing so are considering the most efficient way of moving the equipment whilst maintaining connection for their customers. The Applicant is working with the asset owners to minimise land take,</p> <p>The Applicant is in discussions with the owners of the electrical (Northern Powergrid) and telecommunications (Openreach) asset and has submitted requests for design and cost estimates to each respective asset owner for the type and extent of works required for works to underground each line crossing the AIL route to the Site to refine the detail of works required in each location. It is anticipated that the asset owners will provide responses within the timescale of the Examination to confirm the appropriate methodology for moving relevant lines so that they will not be impacted by the passage of AIL to the Site during the construction phase.</p> <p>Initial discussions with Northern Powergrid indicated that undergrounding the electrical lines would be the preferred option to allow the delivery of AILs.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>Initial discussions with Openreach have indicated that there may be an alternative option to raise the height of the telecommunications line crossing Rawcliffe Road by replacing existing wooden poles with slightly higher wooden poles. The Applicant awaits responses from the asset owners to formal requests for design and cost estimates to confirm the proposed extent and scope of works. These responses will confirm whether the amount of land required for necessary works to move relevant lines is changed.</p>

6. TOPIC 6 DESIGN, LANDSCAPE AND VISUAL

Table 6.1 – Design, Landscape and Visual

ExA Ref.	Addressed to	Question	Applicant's Response
DLV.1.1	Applicant	<p>Section 5 of the Design Framework [APP-195] refers to the policy context in terms of design. The Applicant is asked:</p> <ul style="list-style-type: none"> i. whether it has considered the National Infrastructure Commission Design Principles for National Infrastructure; ii. to confirm the relevance of the document to the Proposed Development; and iii. to demonstrate how these principles have been considered in design work to date and how they will be used in future design work with particular reference to the carbon capture plant (Work No. 1D and 1E). 	<p><u>Background to the Design Framework</u></p> <p>The Applicant considers it useful to provide some background to the Design Framework document. The background to the Design Framework is that it was prepared in response to the EIA Scoping Opinion (APP-116) received from the Planning Inspectorate, in which North Yorkshire County Council stated the following:</p> <p><i>'Site Design – I would support consideration of the original design intent as set out by AE Weddle's 1966 Landscape and Mitigation Report (para. 10.2.3). Given the scale of the existing Drax site and the significant changes that have taken place since the original report, I would like to see a clear revised design strategy for the site.</i></p> <p><i>This strategy should explain how the current application achieves principles of 'good design' in context of the site as a whole, for the overall composition of site structures, massing, layout, colour and materials, aiming to reduce overall massing, visual coalescence and site clutter.'</i></p> <p><i>The Applicant worked with the LPA when producing the Design Framework including agreeing the structure of the document and the elements to include and providing early drafts for them to comment on (refer to Table 9.1 Consultation Summary Table within ES Chapter 9 (Landscape and Visual Amenity). The approach to the design framework and design principles has also been agreed with the LPA as detailed in Table 4.9 Ref 4.9.7 Design Mitigation and Enhancement Measures within the Statement of Common Ground between Selby District Council, North Yorkshire County and Drax Power Limited (AS-030).</i></p> <p><i>As detailed in ES Chapter 9 (refer to paragraphs 9.10.3 – 9.10.5), the Design Framework was produced in consultation with NYCC / SDC, to provide a holistic vision of how Drax Power Station Site should evolve in terms of its relationship with the wider landscape. It provides an overview of the historic landscape vision for Drax Power Station and the evolving design context in terms of new and ancillary infrastructure on the Site as a whole. It also details strategic design parameters and outlines the approach to good design practice, and design principles relating to Drax Power Station as a whole. The Design Framework is intended to be used as a basis of reference for the detailed design phases of the Proposed Scheme, as well as for any changes to Drax Power Station in the future. It has therefore been prepared as a document with potential wider application than just the Proposed Scheme.</i></p> <p>In relation to the Proposed Scheme, the Design Framework provides details of how the design measures within it should be combined and contribute to the appearance of the Proposed Scheme in the context of the Drax Power Station Site. It also describes the decision-making process that has been followed for the Proposed Scheme in response to the strategic design parameters.</p> <p>The Design Framework is intended to be applied to the whole of Drax Power Station now, and in the future; as such, it includes elements that do not apply to the Proposed Scheme. Those elements that have been relied upon in the landscape and visual impact assessment are captured within the Chapter and its associated figures, and associated documents namely ES Chapter 2 (Site and Project Description (APP-038), the Register of Environmental Actions and Commitments (REAC) (REP-015, Rev05 submitted at Deadline 2) and the Outline Landscape and Biodiversity Strategy (OLBS) (AS-094) and its supporting appendices and figures. Where elements of the Design Framework are required to be secured for the Proposed Scheme these have been</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>secured in the Requirements of the draft DCO (AS-076, Rev05 submitted at Deadline 2), including Requirement 6 (Detailed design approval), 7 (Provision of landscape and biodiversity mitigation and enhancement), 8 (External lighting during operation) and 14 (Construction environmental management plan).</p> <p>i) The National Infrastructure Commission's (NIC) Design Principles for National Infrastructure (DPNI) was not included within the policy context for the Design Framework (APP-195) as it was regarded as being too 'high level' and not sufficiently detailed or focussed for the purposes of the Proposed Scheme. However, the Applicant considers that the Design Principles for National Infrastructure have been inherently incorporated in Section 5 of the Design Framework (APP-195) and in Section 9.2 of ES Chapter 9: Landscape and visual (APP-045) through the review and consideration of relevant Legislation, Planning Policy, Regional Strategy, Technical Guidance etc., and then applied through the iterative design process, where possible and appropriate.</p> <p>It is considered that there is more scope to apply the NIC DPNI to new infrastructure projects, where consideration and implementation of 'good design' should be delivered as part of a project that results in significant change to a landscape or community. This is compared to the Proposed Scheme whereby the existing major infrastructure is already in place and is dominant within the existing landscape and community.</p> <p>In respect of the Proposed Scheme there are limitations on how much can be influenced in the design of the infrastructure itself, as the design or appearance is driven largely by functionality and technological or engineering requirements, in addition to site constraints. The Design Framework has however sought to identify "design principles" to guide the design of the Proposed Scheme, where they are applicable. Additionally, the elements within the Section 4 Design Principles of the Design Framework, also align with a number of the Design Principles for National Infrastructure, including Siting, Massing and Appearance, Landscape and Biodiversity and Climate Change and Sustainability.</p> <p>It is also important to note that a process of iterative design was followed during the environmental impact assessment of the Proposed Scheme which resulted in a number of inherent "primary" mitigations being incorporated into the Proposed Scheme (refer to ES Chapter 2: Site and Project Description (APP-038) paragraph 2.2.59) as detailed in part (iii) of the response to this written question below.</p> <p>The Applicant therefore considers that the National Infrastructure Commission's (NIC) Design Principles for National Infrastructure (DPNI) have been appropriately applied.</p> <p>ii) Although the DPNI is relevant to the Proposed Scheme (as high level guiding principles that should be considered and applied, where appropriate), other more relevant and appropriate documentation was reviewed and considered for the Design Framework document, including legislation, national planning policy, emerging national planning policy, local planning policy, regional strategies, and guidance, as well as a significant number of other relevant reference documents. Of particular relevance are the primary National Planning Policies and emerging National Planning Policies that relate and respond to the DPNI, in terms of general 'good design'. Detail on how these relate to good design principles and how the Proposed Scheme has complied with this is provided below:</p> <p>National Policy Statement (EN-1):</p> <p>Paragraph 5.9.8 importantly recognises that, "Virtually all nationally significant infrastructure projects will have effects on the landscape." In light of this fact, the paragraph goes on to provide "Projects need to be designed</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>carefully, taking into account the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate”.</p> <p>In addition, Paragraph 5.9.7 provides, “Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project. Materials and designs of buildings should always be given careful consideration”.</p> <p>Compliance with this policy has been demonstrated through the inclusion of an optioneering phase as part of the design process as set in Section 4 of the Design Framework (APP-195), which explored the comparative benefits/constraints of alternative locations and scheme configurations.</p> <p>In addition, during the design process, consideration has been given in Section 4 of the Design Framework (APP-195) to primary mitigation measures including location, massing, materiality and colour of built form. This is reflected in the relevant primary mitigation in Chapter 2 (Site and Project Description) (APP-038) and are secured via the draft DCO (AS-076, Rev05 submitted at Deadline 2) Requirement 6 (Detailed Design Approval), Requirement 7 (Provision of Landscape and Biodiversity Mitigation and Enhancement) and Requirement 8 (External Lighting During Operation). Historic architectural and landscape strategies for Drax Power Station have additionally informed decision-making processes in relation to planting measures and green infrastructure and these are set in Section 2 of the above document.</p> <p>Draft National Policy Statement for Energy (EN-1):</p> <p>Paragraph 4.6.2 states, ‘Given the benefits of “good design” in mitigating the adverse impacts of a project, applicants should consider how “good design” can be applied to a project during the early stages of the project lifecycle. Design principles should be established from the outset of the project to guide the development from conception to operation’.</p> <p>In addition, Paragraph 5.10.7 states, “The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include light pollution effects, including on local amenity, and nature conservation”.</p> <p>Compliance with this policy has been demonstrated through the setting out of Design Principles as outlined in Section 4 of the Design Framework (APP-195) during the early stages of the project, and establishing a framework for the development of the scheme throughout the design process. The principles which are relevant to the Proposed Scheme are set out in draft DCO Requirement 6 (Detailed Design Approval).</p> <p>In addition, potential impacts on views and visual amenity were considered from the outset, and the location, layout, overall massing of the Proposed Scheme were considered from a Landscape and Visual Impact perspective with primary mitigation aimed at reducing adverse effects where possible. Materiality, colour, lighting and planting schemes were selected to complement existing infrastructure, nature conservation constraints and historic design decisions within the site, and ecology measures were incorporated in order to fulfil BNG and enhancement objectives, as outlined in Section 4 of the Design Framework (APP-195).</p> <p>National Planning Policy Framework, 2021:</p> <p>Within Section 12 of the NPPF “Achieving well-designed places”, the Government sets out a number of overriding core planning principles for achieving well designed places. Of relevance to the consideration of impacts on the</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>landscape and how LPA's are engaged with during the design process, paragraph 132 provides, "Design quality should be considered throughout the evolution and assessment of individual proposals. Early discussion between applicants, the local planning authority and local community about the design and style of emerging schemes is important for clarifying expectations and reconciling local and commercial interests. Applicants should work closely with those affected by their proposals to evolve designs that take account of the views of the community. Applications that can demonstrate early, proactive and effective engagement with the community should be looked on more favourably than those that cannot."</p> <p>Compliance with this policy has been demonstrated through the project team's engagement with North Yorkshire County Council and Selby District Council to establish agreement in relation to Design Principles and objectives as described in Table 9.1 (Consultation Summary Table) of Chapter 9 (Landscape and Visual Amenity) (APP-045).</p> <p>iii) The Design Principles for National Infrastructure include the following elements:</p> <ul style="list-style-type: none"> Climate – Mitigate greenhouse gas emissions and adapt to climate change People – Reflect what society wants and share benefits widely Places - Provide a sense of identity and improve our environment Value - Achieve multiple benefits and solve problems well <p>These four design principles have inherently been considered and addressed during the design and planning process for the Proposed Scheme, and this is detailed below with particular reference to Work No. 1D and 1E where appropriate.</p> <p>Regarding climate, the 'Design Principles for National Infrastructure', developed by the National Infrastructure Commission (NIC Design Principles) set out that projects should "Mitigate Greenhouse gas emissions and adapt to climate change". The driver for the Proposed Scheme is to remove carbon from the electricity generating process which will support the UK government's aim to deliver net zero (climate). As detailed in ES Chapter 14: Greenhouse Gases the Proposed Scheme results in a total reduction of GHG emissions per year of 7,972,111 tCO2e per year which represents a significant beneficial effect.</p> <p>In addition, primary design measures have been incorporated into the Proposed Scheme in order to achieve carbon reduction and to achieve greater levels of sustainability. These measures are listed in Chapter 2 (Site and Project Description) (APP-038) and include (climate, value):</p> <ul style="list-style-type: none"> • Technology selection for the carbon capture process; • The retro-fitting of existing plant (e.g. Work No.s 1A, 1B, 1C, 1F and 3); • Efficient water recycling in relation to the Carbon Capture Wastewater Treatment Plant (Work No. 1D); • Steam supply innovation, to maximise extraction of energy Work No. 1C and 1F); • Use of single compressors for carbon dioxide compression, reducing the spatial requirement for the Carbon Dioxide Processing and Compression Plant and so reducing the risk of habitat loss in more ecologically sensitive areas of the Power Station site (Work No. 1E); • The re-use of aggregate imported to site for both construction and as structural fill; and • Energy supply resilience measures.

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>Design principles, described within Section 4 of the Design Framework (APP-195) for soft and hard landscaping within the Drax Power Station Site, that will be followed in the detailed design (refer to Table 1.1. of the Register of Environmental Actions and Commitments, and secured via DCO, Schedule 2: Requirement 6 (Detailed Design Approval) and Requirement 7 (Provision of Landscape and Biodiversity Mitigation and Enhancement)) are as follows (people, places, value):</p> <ul style="list-style-type: none"> • The inclusion, where reasonably practicable, of landscape elements which reinforce the original intents of the Weddle Strategy for the Drax Power Station Site, notably: <ul style="list-style-type: none"> ○ To create an attractive and positive working environment for site users within the confines of the Power Station; and ○ To provide a landscape structure capable of incorporating continuing development of ancillary industry. • Improving the biodiversity value of amenity planted areas within the Power Station Site: • Increasing species-rich grassland areas, with reduced amenity grassed areas (subject to function); • Incorporating species-rich amenity hedges where introduced; and • Reducing the use of ornamental shrub species in favour of species selection for biodiversity and habitat creation, while maintaining an amenity function. • Enhancement opportunities resulting from any necessary replacement of aged, over-mature amenity planting, where its appearance and function is now heavily compromised. • Design principles, described within Section 4 of the Design Framework (APP-195) for the colour palette associated with the Proposed Development that will be followed in the detailed design, are set out below (Work No.s 1D and 1E) (this design principle is being included in the REAC at Deadline 2 (REP-015, Rev05 submitted at Deadline 2)): <ul style="list-style-type: none"> ○ 'Goosewing Grey' (BS10A05) will be used for storage tanks and pipework; ○ 'Ash Grey' BS9093 will be used for buildings over 15 m. ○ 'Dark Camouflage Brown' (BS381C-436) will be used for buildings up to 15m in height. <p>The final design principle above is of most relevance to the tall structures that form part of the design, comprising Work No. 1D the Carbon Dioxide Capture Plants and 1E Carbon Dioxide processing and compression plant respectively. These typically comprise buildings above 15m in height. Details of the approach to the design of these structures is outlined in the Design Framework (APP-195), including the consideration of options for siting, massing and appearance. Work 1D comprises structures in this area which are very large, comprising two Absorber Columns, two Quench Towers, associated ducting and transit infrastructure. Work 1E comprise low level transmission infrastructure and 4 tall Regenerator Columns. In both locations, buildings will vary in colour from Dark Camouflage Brown for buildings below 15m, Goosewing Grey in relation to tanks, pipework and ducting/storage areas, and Ash Grey for buildings and structures over 15m, refer to Areas 5 (1E) and 4 (1D) as outlined in Section 4 Design Principles.</p> <p>Other design measures related to the 'Climate' principle that have been identified for the Proposed Scheme through iterative design of the carbon capture plant, which relate to the whole site which includes Works 1D and 1E, are as follows:</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<ul style="list-style-type: none"> • Provision of a Surface Water Drainage Strategy (APP-162, an updated version of which will be submitted at Deadline 2) which will maximise water reuse on site. • Provision of additional floodplain capacity (Refer to Appendix 12.1 Flood Risk Assessment (AS-090) and 8.5.1 Proposed Changes Application Report (AS-045)). • Raising sensitive equipment above the design flood level plus freeboard (Refer to Appendix 12.1 Flood Risk Assessment (AS-090 an updated version of which will be submitted at Deadline 2)). • Designing in accordance with relevant design standards to ensure the Proposed Scheme is designed to withstand future climate predictions in relation to temperature and wind loading (refer to ES Chapter 14: Climate Change Resilience (APP-050)). <p>The Proposed Scheme will also deliver at least 10% biodiversity net gain (people, places, value) and it will enable the continued delivery of dependable dispatchable electricity to the UK grid (people and value).</p> <p>Furthermore, in addition to the commitments and proposals provided in the Register of Environmental Actions and Commitments (REAC) (REP-015, Rev05 submitted at Deadline 2) and the Outline Landscape and Biodiversity Strategy (OLBS), relevant design principles can be secured through Requirement 6 (Detailed design approval) and 7 (Provision of landscape and biodiversity mitigation and enhancement) in Schedule 2 of the Draft DCO (AS-076, Rev05 submitted at Deadline 2), which will provide LPAs with the mechanism and opportunity to secure proposals within the Design Framework, as both requirements will need to be submitted to and approved by the relevant planning authority.</p>
DLV.1.2	Applicant	<p>Paragraphs 4.5.1 to 4.5.6 of NPS EN-1 establish the criteria for good design. Paragraph 4.5.1 includes that good design of energy projects should be “<i>matched by an appearance that demonstrates good aesthetic as far as possible.</i>” Please could the Applicant:</p> <p>i. expand on how the concept of good design has been considered in the design process for the buildings and structures that make up the larger components of the proposed carbon capture plant (Work No. 1D and 1E) in relation to both aesthetics and functionality; and</p> <p>ii. explain whether an independent design review of the Proposed Development has been undertaken and if not, why not?</p>	<p>i – As detailed in DLV1.1 above, the Design Framework (APP-195) was prepared in consultation with the LPA, to facilitate certain aspects of good design during the design process, and where appropriate, aspects or elements identified within the Design Framework have been incorporated into the design proposals for the Proposed Scheme, in particular for the design of the buildings and structures in relation to aesthetics, such as materials, colour, location, massing, etc. Furthermore, and also in relation to aesthetics, the location of the proposed buildings and structures, in relation to the existing buildings and structures, was reviewed and visualised to ensure that the proposals would not result in a significantly different nor degraded appearance. In this way the Design Framework (APP-195) demonstrates delivery against the criteria for good design referred to in paragraphs 4.5.1 – 4.5.6 of NPS EN-1.</p> <p>Work No. 1D and 1E comprise the Carbon Dioxide Capture Plants and Carbon Dioxide processing and compression plant respectively. These typically comprise buildings above 15m in height. Details of the approach to the design of these structures is outlined in the Design Framework (APP-195), including options for alternative colour palettes. Work 1D comprises structures in this area which are very large, comprising two Absorber Columns, two Quench Towers, associated ducting and transit infrastructure. Work 1E comprise low level transmission infrastructure and 4 tall Regenerator Columns. In both locations, buildings will vary in colour from Dark Camouflage Brown for buildings below 15m, Goosewing Grey in relation to tanks, pipework and ducting/storage areas, and Ash Grey for buildings and structures over 15m, refer to Areas 5 (1E) and 4 (1D) as detailed in [D1] of Table 1.1. of the Register of Environmental Actions and Commitments, and secured via DCO, Schedule 2: Requirement 6 (Detailed Design Approval). The above colour palette was chosen as it was considered the most effective at creating a sense of cohesion between existing and proposed structures. The ‘external appearance, including colour, materials and surface finishes of all new permanent buildings and structures’ would be approved by the relevant planning authority and is secured through Requirement 6 of the draft DCO.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>In terms of the absorber columns and regenerator columns, their function drives their design and the parameters associated with them. The Absorber column is designed to maximise the interface between the solvent and the carbon dioxide in the flue gas to enhance binding and trapping of the carbon dioxide prior to its removal. This requires a tall column with solvent being introduced through a spray system and a counter current flow of flue gas in order to increase capture percentages. The location of the large pieces of infrastructure, close to the cooling water tie-ins allows for efficient operation and cooling as well as heat integration systems to be designed as efficiently as possible for a retro-fit solution. In addition, the capture plant is situated to reduce underground pipe runs across the site including high pressure carbon dioxide pipelines close to operational plant. These pipe runs and compression systems will be situated toward the north end of the site and will then interface with the Transport and Storage infrastructure close by.</p> <p>ii – NPS EN-1 states in paragraph 4.5.5 that ‘Applicants and the [Secretary of State] should consider taking independent professional advice on the design aspects of a proposal.’ The Applicant considers that a Design Panel is not required in this instance because the design of the Proposed Scheme is largely driven by engineering / technical requirements which has in part, constrained some opportunities in relation to the design aspects, therefore with the exception of some aspects the design is ‘fixed’, this is detailed in the response to DLV1.1 above. Nevertheless, the Design Framework (APP-195) set out a number of design principles in Section 4, and was developed to set out how the design had been developed, to reflect its siting, massing and appearance, including issues of colour, and landscape and ecological proposals. The design has also been subject to extensive consultation with NYCC and SDC as the LPA, and the LPA recognises that the design is driven by engineering / technical requirements. Furthermore, the Proposed Scheme is located to take advantage of existing associated infrastructure and to ensure the ability to deliver on the required functional outcomes, i.e. form follows function. However, design is an iterative process, and the ‘form’ (design) has been reviewed to ensure it remained in keeping with both the surrounding industrial environment and with the Design Framework guidelines or principles.</p> <p>It is also important to note that a process of iterative design was followed during the environmental impact assessment of the Proposed Scheme which resulted in a number of inherent “primary” mitigations being incorporated into the Proposed Scheme (refer to ES Chapter 2: Site and Project Description (APP-038) paragraph 2.2.59).</p>
DLV.1.3	Applicant	<p>In point 10.2 of the Applicant's Response to Relevant Representations and Additional Submissions [AS-038], the Applicant states that the KS21 solvent has been shown to outperform its predecessor.</p> <p>i. Is solvent technology continuing to evolve?</p> <p>ii. If so, will the design of the carbon capture plant of the Proposed Development be specific to the current proposed solvent or is there potential within the design for the plant to accommodate any future evolution in solvent technology for carbon capture within the operational phase?</p>	<p>Technology surrounding carbon capture, including the solvent technology, will continue to evolve and develop. This is analogous to any industrial sector which will demonstrate technological developments. The Applicant does not expect these technological developments to render the BECCS project either less effective or redundant. The Government and a number of influential parties have made it very clear that the time available to develop and construct these projects is now critical in an effort to hit the 2050 targets outlined in the net-zero strategy.</p> <p>The BECCS design is fundamentally based on the use of the specific solvent technology currently available to the market. As solvent technology evolves, then improvements in solvent recovery and efficiency through the various processes may be expected.</p>
DLV.1.4	Applicant	Section 4.1.5 of the Design Framework [APP-195] states that the design aspiration for the absorber	<p>i. The external appearance is driven by functional requirements which are set to allow maximum contact time with the flue gas and solvent to allow 95% capture rate. The Absorber column is designed to</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		<p>columns is that they are in context height-wise with the main boiler/ turbine house and that they align within this overall central massing. However, if developed to the maximum height design parameters within the dDCO, the absorber columns could appear very prominent in relation to the overall central massing. This raises some key questions in relation to the appearance of these prominent structures.</p> <p>i. To what extent is the external appearance of the absorber columns limited by the functional requirements?</p> <p>ii. Has there been a design process to explore options of how the appearance of the absorber columns sit against the context of the existing structures? And if so, could further information on this be provided?</p> <p>iii. Can the Applicant also provide further information to justify the range of flexibility proposed for the design parameters of the absorber columns?</p>	<p>maximise the interface between the solvent and the carbon dioxide in the flue gas to enhance binding and trapping of the carbon dioxide prior to its removal. This requires a tall column with solvent being introduced through a spray system and a counter current flow of flue gas in order to increase capture percentages.</p> <p>ii. Section 4 of the Design Framework [APP-195] sets out the principles that have been used through the design process for the Proposed Scheme. This includes a consideration of how the absorber columns will sit in the context of the existing structures. The Design Framework also identifies a suitable colour palette for application on buildings, structures, and components to ensure they are in keeping with the existing context of both industrial and natural elements. The details of this colour palette are confirmed in Measure D1 of the REAC, with Requirement 6 (Detailed Design Approval) of the draft DCO giving the Local Authority control over approval of the final details.</p> <p>iii. The maximum height of the absorber columns is 95m which will be lower than the current boiler house. The areas on site selected for the absorber columns has taken into account the visual impact of the new plant to keep any potential impact to be insignificant. Drax is working through front-end engineering design (FEED) and detailed design and expect that to be complete in 2024. The design instructions aim to fit in with the current design plans and colour palette, as set out in the Design Framework (APP-195).</p>
DLV.1.5	LPAs	<p>Chapter 9 of the ES [APP-045] states in section 9.5.24 that representative viewpoints have been selected through consultation with the LPAs. Can the LPAs:</p> <p>i. confirm that the viewpoints are appropriate and provide reasonably representative views of the Proposed Development; and</p> <p>ii. provide a response as to whether any concerns exist with regard to the photomontages provided with the ES.</p>	<p>i - The Applicant considers that the viewpoints are appropriate and provide representative views of the Proposed Scheme. The locations of the viewpoints were agreed in consultation with NYCC and East Riding of Yorkshire, as identified within Table 9.1 (Consultation Summary Table) in ES Chapter 9 (Landscape and Visual Amenity) (APP-045). This included modifying the location of viewpoint 3, and night-time photography from agreed viewpoints 2, 4, 7 and 10 as shown in Environmental Statement - Volume 2 - Figure 9.6 (Viewpoint Photography) (APP-103). This is also confirmed in item 4.10.2 of Table 4.10 – Design, Landscape and Visual Impact of the Statement of Common Ground between Selby District Council, North Yorkshire County Council and Drax Power Limited (AS-030).</p> <p>ii -The Applicant considers that the photomontages are accurate as they are fully compliant with the standards required for Photomontages as identified by the Landscape Institute (Visual Representation of Development Proposals – Technical Guidance Note 06/19, 17 September 2019, available at: [REDACTED]). These have been prepared in accordance with the highest level of accuracy required by the guidance, as Type 4.</p> <p>The locations of the viewpoints to be taken forward as photomontages were agreed in consultation with NYCC and East Riding of Yorkshire, as identified within Table 9.1 (Consultation Summary Table) of the ES Chapter 9 (Landscape and Visual Amenity) (APP-045). This is also confirmed in item 4.10.2 of Table 4.10 (Design, Landscape and Visual Impact) of the Statement of Common Ground between Selby District Council, North Yorkshire County Council and Drax Power Limited (AS-030).</p>

ExA Ref.	Addressed to	Question	Applicant's Response
DLV.1.6	Applicant	Section 4.1.31 of the Design Framework [APP-195] states that the lighting levels for the Proposed Development are noticeably less intense than for other existing installations. Is there a mechanism in the dDCO to secure the lighting at a relatively less intense level than the rest of the site?	<p>As outlined in paragraph 5.1.1 of the Draft Lighting Strategy (APP-184), “<i>artificial lighting would be used during the hours of darkness to adequately illuminate the Proposed Scheme for the safety of site personnel undertaking complex tasks during the hours of darkness and site security.</i>”</p> <p>Requirement 8 of the Draft Development Consent Order (DCO) (requires that a Lighting Strategy is approved and implemented, and that it is in substantial accordance with the Draft Lighting Strategy.</p> <p>The aim of the Draft Lighting Strategy is to provide a framework within which the future exterior lighting design of the Proposed Scheme shall be designed to ensure that International, National and Local standards and guidance documents are embedded within the design process to ensure a compliant and balanced approach to exterior artificial lighting to balance the health and safety needs of Drax Power Station Site operatives and environmental aspects. The following specific design requirements to mitigate the impact of lighting are included in the Draft Lighting Strategy (refer to paragraph 5.3.4):</p> <ul style="list-style-type: none"> a. The extent of lit sections should be constrained to the minimum required for safety; b. Selected lighting levels should be reduced to the minimum required for safety; c. LED luminaires should be specified so that light distribution is easily controllable to reduce spill light and other obtrusive parameters; d. Luminaires to be specified so that no light is emitted directly upward above the horizontal where practicable; e. Luminaires with a minimum luminous intensity class of G4 (refer to (BSI, 2015) Table A.1) should be utilised, to remove any light emission above the horizontal and to reduce source intensity over greater distances where practicable; f. Luminaires should be installed at 0° to the horizontal to preserve their luminous intensity class; g. Luminaires with maximum colour temperatures of 3,000 Kelvin (K) should ideally be used, to minimise the blue-light component and the Proposed Scheme’s impact on fauna populations; h. Other colour temperatures up to 5,000 K where higher colour rendering is required for specific visual tasks, can be utilised but should be kept to a minimum where practicable; i. A more limited range of spectral power distribution is used, with predominance in the longer wavelength end of the spectrum, to aid environmental mitigation; j. A system of control and operation should be considered that allows; <ul style="list-style-type: none"> i. Dimming of lighting to a lower level during periods of low use or switch-off when areas are not in use; ii. The use of detection-operated lighting should be considered where appropriate and / or zonal switching i.e., lighting is only operational when tasks are being performed and is activated locally by the operative or via the Site control room; k. Shield and baffles to be used where levels of Obtrusive Light cannot be limited through good design and where issues may arise post-installation; and l. The choice of luminaire with the right distribution at the right height is critical to minimising light spill and Obtrusive Light effects yet providing the right lighting performance on the task area. It should be noted that a lower mounting height is perhaps not better as can be seen from Plate 5.1 below. A lower mounting height can create a higher level of light spill and require more columns.

ExA Ref.	Addressed to	Question	Applicant's Response
			In conclusion the intensity of lighting on site will be governed by the appropriate design standards as detailed in the Draft Lighting Strategy (APP-184) and the Lighting Strategy that will be approved by the LPA. The Applicant therefore considers that a mechanism already exists in the draft DCO (AS-076, Rev05 submitted at Deadline 2) to consider lighting intensity in the lighting design whilst ensuring a safe working environment on site.
DLV.1.7	Applicant	Is the lighting shown in the night-time photomontages [APP-103] representative of a maximum level of lighting at night or is it representative of a baseline level and is there likely to be periods of greater illuminance required for maintenance and/ or regular tasks?	The Applicant can confirm that the modelling and photomontages, as shown in relation to agreed viewpoints 2 and 7 in Environmental Statement - Volume 2 - Figure 9.6: Viewpoint Photography (APP-103), show the maximum lighting level for the operational phase. This reflects the approach to lighting as outlined within the Draft Lighting Strategy (APP-184).
DLV.1.8	Applicant	The Draft Lighting Strategy [APP-184] sets out broad principles of how the lighting will be designed. Should R8 in the dDCO include a mechanism to set a curfew time and associated maximum limits for sky glow, light intrusion (into windows) and luminaire intensity from key viewpoints and receptors?	The concept of a curfew is incompatible with an operational site such as Drax. Drax operates 24 hours a day, 7 days a week and requires access to equipment for maintenance and breakdown requirements. Drax operates a rolling series of outages which involves staff working on plant through the day and night across extended periods of time. Health and safety requirements dictate that structures at height must be lit correctly in order to allow safe access, work and egress; the lighting needs of the operatives must be fit for purpose for an operational site, and to meet relevant regulations.
DLV.1.9	Applicant	The Baseline Lighting Survey Report that is referred to in the Draft Lighting Strategy [APP-184] is not included in the application documents. Can the Applicant submit this document so that it can be considered as part of the Examination?	The Applicant can confirm that the Baseline Lighting Survey Report was originally prepared and submitted as Appendix 3.1 of the Drax Repower Environmental Statement. This report, referenced within the Draft Lighting Strategy (APP-184) has been submitted at Deadline 2 as Appendix 1 to these First Written Questions (document reference 8.9.1).
DLV.1.10	Applicant	The ExA notes that the consultation material [APP-025] did not include the visuals of the indicative design that is now shown in the LVIA viewpoints. Has the Applicant sought views from the community and/ or LPAs on the design and visual appearance of the Proposed Development?	<p>Visuals of the indicative design, as shown in the LVIA viewpoints, were produced following the 'design freeze' for the Proposed Scheme which was after consultation. However, the consultation material, (available in Appendix G (Section 47 Consultation Material) of the Consultation Report (APP-025)) included information in a range of formats, including text, diagrams, illustrations, photomontages and a video "fly through", that provided sufficient detail in terms of buildings, structures, components, location, and layout, for consultees to be sufficiently informed on the visual appearance of the Proposed Scheme. Consultation was carried out with the local community and the LPA as well as statutory and non-statutory stakeholders. This is outlined in the Consultation Report (APP-018) and supporting appendices (APP-019 – APP-031).</p> <p>The LPAs were consulted and kept informed of the design and visual appearance of the Proposed Scheme throughout the design process. The SoCG confirms that the NYCC and SDC are agreed on the majority of issues relating to the ES, including study area, methodology, viewpoints and visualisations, predicted impacts and residual effects, including cumulative effects as evidenced in item Table 4.10 (Design, Landscape and Visual Impact) of the Statement of Common Ground between Selby District Council, North Yorkshire County Council and Drax Power Limited (AS-030). Furthermore, it was through this consultation / liaison that it was agreed that the Design Framework be produced. At a meeting on the 28 January 2022, NYCC/SDC welcomed the preparation of the Design Framework Document (APP-195), that specifically addresses the design and visual appearance of the Proposed Development. This is evidenced in Table 9.1 (Consultation Summary Table) ES Chapter 9 (Landscape and Visual Amenity) (APP-045). This is also subject to ongoing discussion in relation to mitigation developed in line with the Design Framework Document (APP-195) in item 4.10.7 of Table 4.10</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			(Design, Landscape and Visual Impact) of the Statement of Common Ground between Selby District Council, North Yorkshire County Council and Drax Power Limited (AS-030).
DLV.1.11	Applicant	<p>The combined RR from NYCC and SDC [RR-024] says that the Authority requested the Applicant begin work on an up-to-date design strategy for the site and also that the Applicant has agreed to this and has consulted on early drafts of the design guide.</p> <p>i. Is this a separate document to the Design Framework [APP-195]?</p> <p>ii. If so, can this be provided to the ExA to consider as part of the Examination?</p>	<p>i. The Applicant can confirm that the design strategy referred to in the RR from NYCC and SDC (RR-024) and the Design Framework (APP-195) are the same document. The Design Framework (APP-195) was prepared in response to the EIA Scoping Opinion, ID 4.7.11, 4.7 Landscape and visual impact of the EIA Scoping Opinion, (ES Appendix 1.2) (APP-116).</p> <p>The Design Framework (APP-195) has been developed through the design and assessment phase in consultation with NYCC and SDC and provides an updated design strategy for the site. This is evidenced in Table 9.1 (Consultation Summary Table) ES Chapter 9 (Landscape and Visual Amenity) (APP-045), and in item 4.10.7 of Table 4.10 (Design, Landscape and Visual Impact) of the Statement of Common Ground between Selby District Council, North Yorkshire County Council and Drax Power Limited (AS-030). The siting, massing and appearance of the site will be secured through Requirement 6 of the draft DCO (AS-076, Rev05 submitted at Deadline 2), whilst the soft and hard landscape design will be secured through Requirement 8. The Design Framework (APP-195) that was submitted with the Application is the final version.</p> <p>ii. As identified above, the design strategy referred to in the RR from NYCC and SDC (RR-024) and the Design Framework (APP-195) are the same document.</p>
DLV.1.12	Applicant	<p>In the Applicant's responses to Relevant Representations [AS-038] (Response ref. 2.18) the Applicant points to item D1 in the REAC [AS-092] which describes the design principles for the soft and hard landscaping that will be followed in the detailed design. Should design principles for the proposed buildings and structures also be described in the REAC and secured in the DCO to reinforce the original intents of the Weddle Strategy for the Drax Power Station Site?</p>	<p>Item D1 in Table 1.1 Register of Environmental Actions and Commitments within the REAC (REP-015, Rev05 submitted at Deadline 2) identifies the design principles, described within Section 4 of the Design Framework (APP-195) for soft and hard landscaping within the Drax Power Station Site, that will be followed in the detailed design of the Proposed Scheme. The Draft Development Consent Order (AS-076, Rev05 submitted at Deadline 2) Requirement 6 requires that details of the design must be submitted to the LPA for approval and those details must accord with D1 of the REAC (as well as other REAC commitments).</p> <p>In addition, the Register of Environmental Actions and commitments (REP-015, an updated version of which will be submitted at Deadline 2) has been updated to incorporate the design principles for the buildings and structures, described within Section 4 of the Design Framework (APP-195), in relation to the colour palette for the Proposed Scheme as follows:</p> <ul style="list-style-type: none"> • 'Goosewing Grey' (BS10A05) will be used for storage tanks and pipework; • 'Ash Grey' BS9093 will be used for buildings over 15 m; • 'Dark Camouflage Brown' (BS381C-436) will be used for buildings up to 15m in height. <p>The siting, massing and appearance of the site will be secured through requirement 6 of the draft DCO (AS-076, Rev05 submitted at Deadline 2),</p>
DLV.1.13	Applicant	<p>There is a moderate adverse effect identified (Table 18.8 ES Chapter 18 [APP-054]) on common visual receptors from the Proposed Development combined with the Scotland to England Green Link 2 Project (Short List ID3), Barlow Ash Mound (ID6), Development of an energy storage facility (ID8) and Development of a ground-mounted solar farm (ID10). The Applicant is asked to provide more detail</p>	<p>Further detail on the extent of visual impact from the following Viewpoints during construction, as experienced by visual receptors in combination with the Proposed Scheme, is provided below:</p> <p>ID3 – Residents in the vicinity of Camblesforth, residents with south-western facing views (from the settlements of Barmby on the Marsh and Long Drax), and residents of Drax village, and footpath users near Wren Hall Lane and Carr Lane, will experience construction activities associated with the Scotland to England Green Link 2 sub-</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		<p>on the extent of visual impact of ID3, ID6, ID8 and ID10 in construction and how this may be experienced by visual receptors in combination with the Proposed Development.</p>	<p>station, in addition to those of the Proposed Scheme. The construction phase of ID3 is the same as the Proposed Scheme (2024-2029).</p> <p>In combination, there will be an increase in localised effects along New Road due to the construction activities associated with the cumulative site.</p> <p>Overall, the highest level of the anticipated cumulative effects will remain Moderate Adverse (Significant) for Common Visual receptors, due to the noticeable construction activity associated with large scale infrastructure within the view. These effects are no worse than the Proposed Scheme alone.</p> <p>This will be mitigated during construction through retention and enhancement of existing vegetation to the eastern boundary of the Laydown Area.</p> <p>ID 6 – Residents with south-eastern facing views (from Thief Lane) and footpath users (along the River Ouse and around the north west perimeter of Drax Power station) will experience construction activities associated with the mining of Barlow Ash Mound, Northwest of Drax Power Station, in addition to those of the Proposed Scheme. The mining of ash at Barlow Mound is anticipated to last for 20 years, so it is likely there will be overlap with the construction phase of the Proposed Scheme.</p> <p>In combination, there will be an increase in localised effects to the west of Drax Power Station due to the presence of construction compounds from ID 6 being viewed with the Proposed Scheme.</p> <p>Overall, the highest level of the anticipated cumulative effects will remain Moderate Adverse (Significant) for Common Visual receptors, as the Proposed Scheme will be viewed in the background beyond the activities associated with this cumulative site. These effects are no worse than the Proposed Scheme alone.</p> <p>This will be mitigated during construction through retention of existing vegetation, associated with the Barlow Mound site in the foreground of views..</p> <p>ID 8 – Residents with south-western facing views (from the settlements of Barmby on the Marsh and Long Drax), residents of Drax village and footpath users near Back Lane and Carr Lane, will experience construction activities associated with the construction and operation of an energy storage facility located off New Road, in addition to those of the Proposed Scheme. The construction dates of ID8 are currently unknown, but the construction phase itself is anticipated to last 15 months.</p> <p>In combination, there will be an increase in localised effects along New Road, due to the construction activities associated with the cumulative site.</p> <p>Overall, the highest level of the anticipated cumulative effects will remain Moderate Adverse (Significant) for Common Visual receptors. These effects are no worse than the Proposed Scheme alone.</p> <p>This will be mitigated during construction through retention and enhancement of existing vegetation to the eastern boundary of the Laydown Area.</p> <p>ID 10 – Residents of Camblesforth, Barlow and footpath users near Camela Lane and Clay Lane will experience construction activities associated with the development of a ground-mounted solar farm, in addition to those of</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>the Proposed Scheme. The construction dates of ID10 are unknown, but the construction phase itself is anticipated to last between six and nine months.</p> <p>In combination there will be an increase in localised effects, due to the construction activities associated with the cumulative site.</p> <p>Overall, the highest level of anticipated cumulative effects will remain Moderate Adverse (Significant) for Common Visual receptors, due to the low level construction works that will be visible in the foreground, with views of the Proposed Scheme visible in the background within the context of Drax Power Station amongst the skyline. These effects are no worse than the Proposed Scheme alone.</p> <p>There will be no mitigation required during construction.</p> <p>Note: ID 3 has been updated as part of the cumulative assessment, due to a full ES being submitted, and ID10 has now been permitted. The full updated cumulative assessment is found in Chapter 18 Cumulative Effects (APP-054, to be updated at Deadline 2), however there is no change in the effects reported in the Landscape and Visual Amenity section of that assessment.</p>
DLV.1.14	Applicant	<p>The hedgerow to the east edge of the East Construction Laydown Area is proposed to be enhanced through thickening of the hedge and planting of frequent broadleaved species as part of the Outline Landscape and Biodiversity Strategy [APP-180].</p> <p>i. Are these works planned to be done prior to construction in order to mitigate the visual impact of the construction site on visual receptors?</p> <p>ii. If so, will any new planting be of sufficient maturity to provide adequate screening? And how is this secured in the dDCO?</p>	<p>i – As stated in Ref ID LVIA7 of Table 1.1 of the Register of Environmental Actions and Commitments (REAC) (REP-015, Rev05 submitted at Deadline 2) these works will be undertaken prior to the commencement of the construction phase, as part of the construction of the East Construction Laydown Area, at the appropriate time of year (tree planting season runs between November and March). This will mean that the planting will be implemented during the winter prior to construction commencing, at the latest.</p> <p>ii. - Planting stock of a suitable age and size will be used to ensure initial reasonable mitigation of the visual impact of the construction site. It should be noted that advanced planting stock provides better immediate screening but establishes less successfully and grows more slowly, whereas younger planting stock establishes more successfully and grows more quickly – it is proposed that some older / larger planting stock be used to provide immediate screening, but that the majority of the planting stock be younger / smaller to ensure successful establishment and relatively quick growth, to deliver the necessary environmental function of visual screening.</p> <p>Reference to the enhancement of the existing hedgerow along the eastern side of the East Construction Laydown is identified in 3.3.12 of the Outline Landscape and Biodiversity Strategy (AS-094) and is also secured within item LVIA1 of Table 1.1 of the REAC, meaning that pursuant to Requirement 14, the commitment will be included in the Construction Environmental Management Plan.</p>

7. TOPIC 7 DEVELOPMENT CONSENT ORDER

Table 7.1 – Development Consent Order

ExA Ref	Addressed to	Question	Applicant's Response
N/A	N/A	No questions at this time.	

8. TOPIC 8 FLOOD RISK AND WATER ENVIRONMENT

Table 8.1 – Flood Risk and Water Environment

ExA Ref.	Addressed to	Question	Applicant's Response
FRW.1.1	Applicant/ EA	<p>i. Can you confirm that you consider that the wording in R11 of the dDCO [AS-076] which requires the authorised development to be carried out and operated in accordance with the flood risk assessment satisfactorily secures the flood risk mitigation both during construction and operation for the lifetime of the development?</p> <p>ii. Would you expect further details post-consent or any management or maintenance plan to be submitted?</p> <p>iii. Does the wording of this Requirement ensure works are retained or remain effective?</p>	<p>i. The Applicant has held detailed discussions with the Environment Agency as part of the development of the Flood Risk Assessment (FRA) / Water Environment evidence base. These discussions have continued post submission of the DCO application. The FRA (AS-089) contains details of all aspects that need to be secured. It is the Applicant's view that the wording of R11 is sufficient to ensure the mitigation during construction and operation of the lifetime of the Proposed Scheme, as it is the FRA itself which sets out what must be provided.</p> <p>ii. The Applicant will provide the Environment Agency with additional details on the floodplain compensation post consent. This commitment is detailed / secured in paragraph 7.1.36 of the FRA (AS-089). This information is to confirm the exact volume of floodplain lost, upon completion of the detailed design stage, which may require greater impacts than currently envisaged. However, the floodplain compensation scheme has been developed to demonstrate that additional volumes can be provided (Table 7.5 for the FRA (AS-089)) which details that 879.3 m³ is required but between 880m³ and 1,079m³ can be provided. If the design life of the Proposed Scheme is to be extended beyond 25 years, then there is a requirement for discussions to be held with the Environment Agency in year 20, when there is greater certainty on the flood risk / levels. The wording on this has been revised following discussions with the Environment Agency for Deadline 2 to bring more certainty as to the delivery of any measures that may be required.</p> <p>iii. The Applicant considers that this wording is suitable. In particular it notes that section 7 of the FRA, which deals with the operational phase mitigation, is made up of two key matters: freeboard and the Flood Compensation Area (FCA). Paragraph 7.1.32 of the FRA deals with the latter and specifically required that it is maintained by Drax Power Ltd throughout the lifetime of the Proposed Scheme to ensure the FCA remains suitable for the proposed use. Whilst the Applicant considers that once the Proposed Scheme is constructed to the levels of freeboard set out in the FRA, it would be practically complex for them to ever be changed, it is updated in the FRA for Deadline 2 to make clear that those freeboard levels should be maintained for the lifetime of the development.</p> <p>Chapter 8 deals with the Surface Water Drainage Strategy, (APP-162), which is summarised within the FRA, and which, pursuant to Requirement 10 will require the submission of a detailed drainage strategy to the Lead Local Flood Authority (LLFA) post consent for approval. Requirement 10 goes on to require that this is retained and maintained during the operation of the Proposed Scheme.</p>
FRW.1.2	EA	<p>In its RR [RR-051], the EA disagreed with the scoping out of some of the surface water drainage features highlighted within Table 12.2 of ES Chapter 12 and invited the Applicant to discuss these matters. The Applicant responded to these points in its response to the RRs [PDA-002]. Can the EA state whether it considers that its concerns have been</p>	<p>The Environment Agency has agreed with the additional information / clarification provided on this point in the Relevant Representations (AS-038). This is confirmed in the Statement of Common Ground (SoCG) with the Environment Agency as submitted at Deadline 1 (REP-019).</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		addressed by the additional information provided.	
FRW.1.3	EA	In the Applicant's Response to RRs it states that, although the presence of great crested newts has been recorded in the ponds, they are not likely to be affected by the construction of the Proposed Development given that they are separated from the Proposed Development and construction areas by an earth embankment. Do you agree?	The Environment Agency has agreed that the existing earth embankment will prevent impacts on the great crested newts during construction of the Proposed Scheme. This is confirmed in the SoCG with the Environment Agency as submitted at Deadline 1 (REP-019).
FRW.1.4	Applicant	WE14 of the REAC [AS-092] states that prior to any works being undertaken, a watercourse pollution prevention plan will be prepared and shared with the EA. How is the submission and approval of this plan secured?	<p>The submission and approval of the watercourse pollution prevention plan is secured via requirement WE14 of the REAC (REP-015, Rev05 being submitted at Deadline 2). This has been updated and is submitted at Deadline 2 to enable the Environment Agency to approve the plan.</p> <p>As detailed in section 1.1.4 of the REAC (REP-015, Rev05 being submitted at Deadline 2), where measures will be included in the Construction Environmental Management Plan (CEMP) for the Proposed Scheme this is detailed within the Achievement Criteria and Reporting Requirements column in Table 1.1 which also includes that the CEMP will be approved by the Local Planning Authority (LPA).</p> <p>The mitigation measures within the REAC (REP-015, Rev05 being submitted at Deadline 2) are secured within the draft Development Consent Order in Requirement 14.</p>
FRW.1.5	EA	In its RR [RR-051] the EA states that it is undertaking a review of the Applicant's flood risk model and is unable to confirm whether the modelling is fit for purpose at this time. Can the EA please provide an update on the outcome of the flood risk modelling review.	The Environment Agency has agreed that the hydraulic modelling meets their criteria for the Applicant in supporting the Flood Risk Assessment (AS-088). This is confirmed in the SoCG with the Environment Agency as submitted at Deadline 1 (REP-019).
FRW.1.6	Applicant	The PPG on Flood Risk and Coastal Change was updated on 25 August 2022. The changes are a significant refresh to the guidance and bring the PPG up to date and in line with the latest policy position on flood risk introduced in the updates to the NPPF in 2018 and 2021. Please	<p>The Applicant has considered the Flood Risk and Coastal Change Planning Practice Guidance (PPG) updates in the updated FRA (AS-088) within paragraphs 7.1.18 to 7.1.20, as the main changes to the PPG that would impact the design / assessment of the Scheme relate to consideration of design life of projects and the design of floodplain compensation. Both of these matters are set out in the FRA (AS-088).</p> <p>This has been agreed with the Environment Agency, through the detailed discussions held with the Environment Agency as part of the development of the FRA / Water Environment evidence base.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		advise whether the update affects the assessment undertaken.	These discussions have been continued post submission of the DCO as detailed in the SoCG as submitted at Deadline 1 (REP-019) and the updated FRA submitted at Deadline 2 the Applicant considers deals with their residual concerns about ensuring the delivery of mitigation in an extended design life scenario.
FRW.1.7	DC/ ERYC/ NYCC/ SDC	Please could NYCC, SDC, ERYC and DC confirm whether they agree with the list of plans and projects that have been used in the assessment of cumulative effects on the water environment, as identified in ES Chapter 18 [APP054].	As detailed in Table 18.1 of ES Chapter 18 (Cumulative Effects) (APP-054), Appendix 18.2 (Short List of Other Developments) (AS-013) has been agreed with relevant consultees including Doncaster Council, East Riding of Yorkshire Council and Selby District Council. No formal comment was received from North Yorkshire County Council at the time of submission. However, as detailed in Table 4.17 in the SoCG with Selby District Council and North Yorkshire County Council (REP-018), this has been confirmed as agreed.
FRW.1.8	Applicant	It is stated in Table 6-1 (Water Environment) of the PCAR [AS-045] that there may be other receptors present on the site in addition to the Secondary Aquifer, such as private groundwater abstractions, but this has not been confirmed. Please can the Applicant identify any other sensitive receptors relevant to PC-02 and provide an assessment of potential significant effects as necessary.	The Applicant has submitted a request for information on the Private Water Supplies to East Riding of Yorkshire Council who are the LPA for the PC-02 area on 2 December 2022. A response remains outstanding, and liaison remains on-going with East Riding of Yorkshire Council to obtain the information. No other sensitive receptors have since been identified. An update, including an assessment of any potential significant effects will be provided at a subsequent deadline once the information is received.
FRW.1.9	NE	Is NE satisfied that the evidence provided with the PCAR [AS-045] of the effects of the proposed changes on the water environment justifies the Applicant's conclusion that there would be no significant effects on water quality, and therefore on the features of the European sites, during construction and operation?	

9. TOPIC 9 GROUND CONDITIONS AND CONTAMINATION

Table 9.1 – Ground Conditions and Contamination

ExA Ref.	Addressed to	Question	Applicant's Response
GCC.1.1	NE	The ExA notes that land to the north of the East Construction Laydown Area within the Habitat Provision Area has not been subject to an ALC survey. The Applicant, in the ES Chapter 11 [APP-047], classes this land as Subgrade 3b based on a pre-1988 ALC survey which was based on anecdotal evidence of the landowner. NE is asked if it is satisfied with the classification of land that the Applicant is suggesting?	In relation to the land to the north of the East Construction Laydown Area within the Habitat Provision Area, referenced in the question, an ALC Survey was undertaken on the Habitat Provision Area in November 2022 (provided in an updated version of Appendix 11.2 (Soil Resource and ALC Survey) (APP-158, Rev02 being submitted at Deadline 2). The survey confirmed the area as ALC Subgrade 3b.
GCC.1.2	Applicant	Item GC3 in the REAC [AS-092] states that an Earthworks Specification will be produced to ensure that imported materials are suitable for their intended use in terms of their chemical and geotechnical quality. Should this be identified within R12 of the dDCO to be agreed with the RPA in consultation with NE?	The Earthworks Specification relates to work within the Drax Power Station Site (as imported materials may be required), as well as work within the proposed Flood Compensation Area (PC-01). The Relevant Planning Authority are the appropriate body to agree the Earthworks Specification in consultation with the EA and consultation with NE is not appropriate for this document. The Earthworks Specification will be included in R12 of the dDCO (AS-076, Rev05 being submitted at Deadline 2) and included in the updated REAC (REP-015, Rev05 being submitted at Deadline 2). An Earthworks Specification is unlikely to be required for works within areas of the Order Limits including the East Construction Laydown Area, Habitat Provision Area, and Work No. 8.
GCC.1.3	Applicant	Item GC3 in the REAC [AS-092] states that the mechanism for securing the MMP is by DCO Requirement. Can the Applicant explain how the dDCO secures this measure?	Section 1.1.4 of the REAC (REP-015, Rev05 being submitted at Deadline 2) details that the CEMP for the Scheme will include a Materials Management Plan (MMP). G3 within the REAC provides further details on the MMP. The mitigation measures within the REAC to be included in the CEMP are secured within the draft Development Consent Order (AS-076) via Requirement 14: Construction Environmental Management Plan. The amendments to the REAC for Deadline 2 will make clear that the MMP is intended to be part of the CEMP and therefore secured via Requirement 14.
GCC.1.4	Applicant	As raised in NE's Additional Submission [AS-011], can the Applicant provide an ALC field survey for the southern tip of the on-site Habitat Provision Area and also assign an ALC grade to the central and western parcels of land in the Soil Resource and Agricultural Land	As detailed in the response to GCC.1.1, an ALC Survey was undertaken on the Habitat Provision Area in November 2022 (provided in an updated version of Appendix 11.2 (Soil Resource and ALC Survey) (APP-158, Rev02 being submitted at Deadline 2). This survey included the southern tip of the on-site Habitat Provision Area. The survey confirmed the area as ALC Subgrade 3b. The central parcel (as described within Appendix 11.2 and referenced in the question) relates to the Woodyard area within Drax Power Station Site and is non-agricultural, and therefore an ALC survey was not undertaken within this area. A soil resource survey (as provided in the updated version of Appendix 11.2 (Soil Resource and ALC Survey)) was undertaken within this area

ExA Ref.	Addressed to	Question	Applicant's Response
		Classification Survey (Appendix 11.2 [APP-158]).	<p>to support the ecological assessment, specifically the translocation of green-winged orchid <i>Anacamptis morio</i> as part of the Outline Landscape and Biodiversity Strategy (AS-094).</p> <p>The western parcel (as described within Appendix 11.2 (Soil Resource and Agricultural Land Classification Survey) (APP-158) and referenced in the question) relates to the Fallow Field within the Off-Site Habitat Provision Area. The soil resource survey was undertaken within this area as it was a proposed translocation site for green-winged orchid <i>Anacamptis morio</i> as part of the Outline Landscape and Biodiversity Strategy (AS-094). The revised ALC Survey provided in an updated version of Appendix 11.2 (Soil Resource and ALC Survey) indicates that although this land is classified as non-agricultural that should this area return to agricultural use it would be classified as Subgrade 3b.</p>
GCC.1.5	Applicant	Can the Applicant confirm if it has considered potential impacts to agricultural land beyond and adjacent to the East Construction Laydown Area.	As stated within para 11.6.1 (c) of Chapter 11 (Ground Conditions) of the ES (APP-047), the study area for the soil and agricultural land assessment applies to land to be disturbed within the Order Limits and the Off-Site Habitat Provision Area only. An assessment of land outside this study area is not required by guidance ^{9 10} within the scope of this Ground Conditions assessment, therefore consideration of potential impacts to agricultural land beyond and adjacent to the East Construction Laydown Area has not been undertaken.
GCC.1.6	Applicant	Can the Applicant provide a response to the comment from NE in its Additional Submission [AS-011] (Table 1, Item 17) that inappropriate soil handling, in the form of topsoil removal or topsoil inversion, is currently proposed for the Habitat Provision Area to the north of the East Construction Laydown Area and for the Off-Site Habitat Provision Area.	Topsoil inversion is no longer specifically proposed. The CEMP will be produced at detailed design stage and Requirement 14 specifies consultation with Natural England on the CEMP regarding soil management matters prior to its approval. The Applicant recognises Natural England's concerns regarding soil carbon but would not wish to entirely preclude the use of this technique at this stage due to the potential value in reducing the nutrient status of the upper part of the soil profile and limiting arable weed growth.
GCC.1.7	NE	In point 5.7 of the Applicant's Response to Relevant Representations and Additional Submissions [AS-038], the Applicant responds to NE's concerns about the methodology used to assess impact to agricultural land within Chapter 11 (Ground Conditions) of the ES [APP-047] relative to the methodology outlined within the ICE (2019) EIA Handbook. Please can NE comment on whether the comparison provided sufficiently	

⁹ Highways England. (2019). *DMRB Sustainability & Environment Appraisal, LA 109 Geology and soils.*

¹⁰ MAFF. (1988). *Agricultural Land Classification of England and Wales.*

ExA Ref.	Addressed to	Question	Applicant's Response
		addresses its concerns about this matter.	
GCC.1.8	Applicant	Table 5-1 of the Proposed Changes Application Report (PCAR) [AS-045] highlights that soil leachate results identify exceedances and that the Water Environment assessment has not considered the potential for mobilisation of existing contaminants. Can the Applicant provide such an assessment or a justification as to why one is not required?	<p>Table 5.1 of the Proposed Changes Application Report (PCAR) (AS-045) does not specifically contain an assessment of the potential for mobilisation of the existing contaminants but it does state:</p> <ul style="list-style-type: none"> • <i>“The proposed works do not extend below natural ground surface level, therefore no significant groundwater quantity effects from or to groundwater are therefore anticipated;</i> • <i>The overlying low permeability superficial deposits are expected to offer a reasonable degree of protection to the underlying Sherwood Sandstone principal aquifer from impacts due to potential spillage or leakage of pollutants during the proposed works. Additionally standard pollution prevention measures outlined in a CEMP would mitigate the risk further so that no significant groundwater quality effects during the proposed works are anticipated. Note, this assessment has not considered the potential for mobilisation of existing contaminants.”</i> <p>. The soil leachate results have been utilised to assess the risk to Controlled Water receptors, and whilst some exceedances have been identified, they are marginal (i.e., within one order of magnitude) of the conservative screening values. The risk to Controlled Water receptors is therefore not considered to be significant nor preclude the use of the area as a proposed flood compensation area. Furthermore, it is not expected that any mobilisation of contaminants would be likely to occur as:</p> <ul style="list-style-type: none"> m. There is no risk of fluvial flooding to the area whilst the works are undertaken as the Flood Risk Assessment (FRA) (AS-088, Rev03 being submitted at Deadline 2) demonstrates that the flood compensation area is located outside of the present day floodplain. The provision of floodplain compensation is only required in the future climate change scenario, should the Environment Agency not maintain the flood defences to keep pace with the impacts of climate change. This means that all the works, stabilisation and growth of vegetation will be undertaken in the 'dry' scenario. n. As the proposals for the floodplain compensation do not involve the import or export of material there is no change in the soil remobilisation / leachate during flood or heavy rainfall events. o. The borehole logs contained in Appendix 1 (FCA Trial Pitting Interpretative Technical Note) of The Proposed Changes Application Report (AS-050) demonstrate that the soils are largely clayey in nature, the movement of soils will not create new pathways for any contaminants to the groundwater. p. Although it is recognised that disturbance of the soils and the change in site levels has the potential to alter the leachate potential and potentially mobilise any contaminants. To determine this, soil leachate testing has been undertaken (refer to PCAR Appendix 1 (FCA Trial Pitting Interpretative Technical Note) (AS-050)), although soil leachate results identified marginal exceedances of water quality standards for a number of contaminants, the results do not preclude the use of the area as a proposed flood compensation area. <p>The results from the soil testing that was carried out for the Flood Compensation Area were included within Appendix 1 (FCA Trial Pitting Interpretative Technical Note) of the Proposed Changes Application Report (AS-050). The soil testing results were also discussed with the EA. Subsequently the FRA has been updated to include the Flood Compensation Area and the EA has agreed with the updated FRA, as detailed within the SoCG (Ref 4.4.5) (REP-019). To provide confirmation that the agreement with the EA in relation to flood compensation area includes the soil testing, the SoCG will be updated for Deadline 3.</p> <p>Therefore, it can be concluded that there is no potential impact on the Water Environment from the potential mobilisation of existing contaminants and no further assessment is considered to be required.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
GCC.1.9	EA	Does the EA agree with the Applicant's conclusion in Table 5-1 of the PCAR [AS-045] that the identified soil leachate exceedances (as contained in PCAR Appendix 1: FCA Soil Testing Technical Note [AS-050]) are marginal in nature and not significant, and do not preclude the use of the area as a proposed FCA?	<p>The Flood Risk Assessment (FRA) (AS-088, Rev03 being submitted at Deadline 2) demonstrates that the flood compensation area is located outside of the present day floodplain, with the provision of floodplain compensation only required in the future climate change scenario, should the Environment Agency not maintain the flood defences to keep pace with the impacts of climate change.</p> <p>The location of the floodplain compensation area means that all the works, stabilisation and growth of vegetation will all be undertaken in the 'dry' scenario.</p> <p>As the proposals for the floodplain compensation do not involve the import or export of material there is no change in the soil remobilisation / leachate during flood or heavy rainfall events.</p> <p>Although it is recognised that disturbance of the soils and the change in site levels has the potential to alter the leachate potential and potentially mobilise any contaminants. To determine this, soil leachate testing has been undertaken (refer to PCAR Appendix 1 (FCA Trial Pitting Interpretative Technical Note) (AS-050)). As stated in response to GCC1.8, although soil leachate results identified marginal exceedances of water quality standards for a number of contaminants, the results do not preclude the use of the area as a proposed flood compensation area due to the risk to surface water receptors and groundwater receptors being considered low.</p> <p>The results from the soil testing that was carried out for the Flood Compensation Area were included within the Proposed Changes Application Report (AS-045) in Appendix 1 – FCA Trial Pitting Interpretive Technical Note (AS-050). The soil testing results were also discussed with the EA. Subsequently the Flood Risk Assessment has been updated to include the Flood Compensation Area and the EA have agreed with the updated FRA, as detailed within the SoCG (Ref 4.4.5). In order to capture this agreement with the EA, in relation to flood compensation area includes the soil testing, the SoCG will be updated for Deadline 3.</p>
GCC.1.10	Applicant	Where the proposed underground cable route for OHL1 passes beneath agricultural land, can the Applicant explain whether and the extent to which farming operations will be affected in the operational phase of the development and the measures taken in the design to minimise this?	<p>The Applicant is in discussions with the owners of the electrical asset and has submitted requests for design and cost estimates for the type and extent of works required. It is anticipated that the electrical asset owners will seek to minimise any impact on farming operations during the operational phase of the development by ensuring that undergrounded cables are installed below the depth for cultivation, so as not to affect the growing of crops, management of soils, or grazing (as appropriate) on land above.</p> <p>Once the undergrounded cables are installed, the only operational phase requirement of the asset owner would be routine maintenance of the cables. This is anticipated to be infrequent and of a short term duration. In addition, any disruption to farming operations would be minimised by the location of cables within ducts; therefore, maintenance would largely be via permanent access chambers. This would remove the need to disrupt any additional above ground agricultural land for maintenance purposes.</p> <p>In order to minimise any effects on farming operations, the Applicant will assist the asset owner in refining the detail of the design of proposed works in discussion with landowners and persons farming the land, to identify appropriate parameters for relevant farming activities on the land.</p>
GCC.1.11	Applicant	<p>i. Can the Applicant provide the ALC survey which was completed for PC-01 in November 2022 which classified the land as Grade 3b (non-BMV)?</p> <p>ii. Can the Applicant also provide a detailed ALC and soil survey where</p>	<p>The ALC Survey report is provided as an updated version of Appendix 11.2 (Soil Resource and ALC Survey) (APP-158, Rev02 being submitted at Deadline 2).</p> <p>The Applicant can confirm the area within PC-01 is classified as Subgrade 3b.</p> <p>The area within PC-02 is mapped as ALC Grade 2 (BMV) based upon post-1988 mapping. The total estimated area of BMV agricultural soils which may be impacted by the proposed works is approximately 0.5ha. Works are short term and temporary (estimated at 10 days of work per line) with the land proposed to remain in agricultural use with no loss of BMV. A Soil Handling Management Plan will be produced (as already committed to in Ref ID GC2 in the REAC (REP-015, Rev05 being</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		detailed data is not available for PC-02 to inform soil handling and suitability for reuse, including depth of topsoil strip?	submitted at Deadline 2)) which would treat the soils as BMV. Based upon this and the small scale of the proposed works, undertaking a detailed ALC and soil survey is not considered to be proportionate. The depth of topsoil strip will be included within the Soil Handling Management Plan

10. TOPIC 10 HISTORIC ENVIRONMENT

Table 10.1 – Historic Environment

ExA Ref.	Addressed to	Question	Applicant's Response
HE.1.1	Applicant	The Environment and Biodiversity Mitigation Plan [APP-181] appears to show new hedgerow and hedgerow enhancement works at the location of the boundary of the scheduled monument, whereas ES Chapter 10 [APP046] states in paragraph 10.10.2 that any planting in the Habitat Provision Area would avoid the boundary of the Drax Augustinian Priory. Can the Applicant clarify how the location of these works relates to the location of the scheduled monument boundary?	<p>The Applicant can confirm that the hedgerows are not located with the boundary of the scheduled monument. The existing boundary alignment (located outside of the scheduled monument) is currently at least partially hedged, and this will be enhanced with the proposals. The Register of Environmental Actions and Commitments (REP-015, Rev05 submitted at Deadline 2) measure [H1] states that "Any planting in the Habitat Provision Area will avoid the boundary of the Drax Augustinian Priory". This is by draft Development Consent Order, Schedule 2 Requirement 6 (2) which states that the details submitted for approval at detailed design must be in accordance with H1 of the REAC.</p> <p>The hedgerow planting was discussed at a meeting with Historic England on 28 January 2022. Historic England had no concerns over the location of the proposed hedgerows or the methodology to plant them, and this is recorded in the Statement of Common Ground with Historic England (AS-033). The planting proposals have not changed since then.</p>
HE.1.2	Historic England/ NYCC/ SDC	The walkover undertaken to examine the setting of above ground heritage assets was carried out in the month of March. Are Historic England, SDC and NYCC satisfied that the time of year that the setting of the above ground assets was examined represents a worst-case scenario in relation to vegetation growth providing screening of the Proposed Development?	<p>While vegetation growth had begun in March, it was not sufficient to have screened relevant features which would therefore have affected the assessment of the effects on heritage assets. As such the assessment is considered to be robust and suitably worst case. SDC & NYCC and Historic England have confirmed agreement with the methodology in their respective Statements of Common Ground (REP-018, AS-033).</p> <p>Furthermore there will be no significant impact on the setting of any heritage asset. As described in paragraph 6.2.12 of ES Appendix 10.1 (Historic Environment Desk-Based Assessment) (APP-154) the setting of Drax Augustinian Priory only provides a minor contribution to the value of the asset and "the Proposed Scheme would not change the elements of setting which contribute to its value". Historic England agree with this position, as recorded in the Statement of Common Ground (AS-033).</p>
HE.1.3	Applicant	Can the Applicant outline the reasons for the choice of location for the Habitat Provision Area adjacent to the scheduled monument?	<p>There are a number of reasons for choosing this area including:</p> <ul style="list-style-type: none"> • the planting would: <ul style="list-style-type: none"> ○ reflect field boundaries that are characteristic of the wider rural agricultural setting ○ promote a stronger hedgerow structure to field boundaries ○ provide enhanced integration with surrounding hedgerows and woodland ○ reinstate habitat connectivity and linear features across the Habitat Provision Area • this area offers additional connectivity to the wider landscape, provide commuting routes for bats and offer new nesting opportunities for breeding birds • there would be no adverse impacts on the Drax Augustinian Priory Scheduled Monument caused by hedgerow planting (see below). <p>Refer to the Outline Landscape and Biodiversity Strategy (AS-094) and Historic Environment Desk-Based Assessment (APP-154) for further detail.</p> <p>The impact of the location of the Habitat Provision Area was detailed in the Historic Environment Desk-Based Assessment (APP-154), paragraph 6.2.12. This states that the land would be maintained as agricultural land, which forms the current</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			setting to the asset in this location. The impact of the Proposed Scheme as a whole on Drax Augustinian Priory is not significant and is assessed as no more than slight adverse (APP-154). As stated in Table 10.1 of Chapter 10 (Heritage) of the ES (APP-046), Historic England considered that “ <i>the changes were in keeping with the evolution of the post-Dissolution landscape.</i> ”
HE.1.4	Applicant	R13 of the dDCO [AS-076] requires approval of a WSI prior to the starting of Work No. 5. Can the Applicant provide an outline of the WSI referred to in R13?	As the exact requirements of the archaeological work will depend on the exact nature of the construction programme, the detail of the Written Scheme of Investigation (WSI) cannot be produced at this stage, and it would not provide more detail than that contained within Chapter 10 (Heritage) (APP-046) of the Environmental Statement, which details the requirements for archaeological mitigation. These are also included in the Register of Environmental Actions and Commitments (REP-015, Rev05 submitted at Deadline 2). This states that an archaeological watching brief will be required and that it will be completed to a WSI to be agreed with the Local Planning Authority. This means that the LPA will have final sign-off of the methodology to be undertaken, once the construction detail is available following receipt of DCO consent, assuming the Application is successful.
HE.1.5	Applicant/ Historic England	<p>The ExA notes in the PCAR [AS-045] that the Applicant states no further mitigation for historic assets is recommended for Work No. 8, but this will be agreed with the Local Planning Authority before construction commences as part of the discharge of Requirement 13 of the DCO.</p> <p>i. Can the Applicant provide a response on whether the wording of Requirement 13 needs to be updated to secure this?</p> <p>ii. Can Historic England comment on whether it is satisfied with the Applicant's assessment of the effects of Work No. 8 on unknown archaeological remains?</p>	<p>i. Requirement 13 has been updated to include Work No. 8 (as noted in the Applicant's written summary of oral submissions made at Issue Specific Hearing 2 (REP-029). This amendment is included in the draft DCO submitted at this Deadline 2, so that it now expressly refers to Work Nos 6 and 8 (in addition to 5), and requires either a written scheme of investigation, or agreement with the relevant planning authority that such a scheme is not required. Sub-paragraph (1) of Requirement 13 now states:</p> <p style="padding-left: 40px;">“(1) Each of numbered works 5, <u>6</u> and 8 of the authorised development must not commence (including permitted preliminary works comprising intrusive archaeological surveys only) until <u>either-</u></p> <p style="padding-left: 80px;">i. a written scheme of investigation has, for that numbered work, been submitted to and approved by the relevant planning authority; <u>or</u></p> <p style="padding-left: 80px;">ii. <u>the relevant planning authority has confirmed that no written scheme of investigation is required for that numbered work.</u></p> <p>As stated above, Work No. 8 has been included in the updated Requirement 13.</p>

11. TOPIC 11 MAJOR ACCIDENTS AND NATURAL DISASTERS

Table 11.1 – Major Accidents and Natural Disasters

ExA Ref.	Addressed to	Question	Applicant's Response
MAD.1.1	UKHSA	<p>Can the UKHSA comment on the Applicant's approach to assessment of major accidents as set out in ES Chapter 17 [APP-053] in the context of the Proposed Development, including elements of novel technology.</p> <p>Does the UKHSA consider that the Applicant has sufficiently identified and assessed the potential risks associated with the CCS component?</p>	
MAD.1.2	Applicant	<p>Paragraph 17.6.28.g of ES Chapter 17 [APP-053] states that detailed construction information is not yet available for the Proposed Development and this assessment therefore draws on the professional experience of the assessor of other similar projects.</p> <p>Can the Applicant confirm, given the novel technology used in the Proposed Development, what assumptions have been made based on other projects about the design of, safety and control systems for, and construction of, any novel technology, and the level of confidence in these assumptions for the purpose of the assessment of MA&D?</p>	<p>In June 2011 the HSE published "Assessment of the major hazard potential of Carbon Dioxide". This report concluded that CO₂, based on the evidence available at that time, has major accident hazard potential if released at, or above, its critical pressure. However, where the risks are properly controlled the likelihood of a major hazard incident is expected to be very low, as in other similar processes in the energy, chemical and pipeline industries.</p> <p>The assumptions that have been made with regard to the Proposed Scheme are outlined in paragraph 17.6.28 and Section 17.11 of ES Chapter 17 (Major Accidents and Disasters) (APP-053).</p> <p>The Proposed Scheme will be designed, constructed and operated in accordance with Health and Safety legislation. Although CO₂ is not currently defined as a dangerous substance under the Control of Major Accident Hazards Regulations 1999 (COMAH) or as a dangerous fluid under the Pipelines Safety Regulations 1996, the Proposed Scheme will be regulated under The Health and Safety At Work etc. Act 1974 (HSWA) which applies to Carbon Capture and Storage (CCS) processes. Under the requirements of HSWA CCS operators are required to take a proportionate approach to managing all CCS risks. In addition, Part II of the Pipelines Safety Regulations 1996, which covers safe design and operation, will apply to the CO₂ pipelines.</p> <p>In order to comply with HSWA, the Applicant has undertaken a Hazard Identification (HAZID)/Environmental Impact Identification (ENVID) study to identify potential hazards and threats associated with the CCS process. The ENVID specifically identifies the impacts of the Proposed Scheme on the environment. The requirement for control measures has been identified in order to achieve a tolerable residual risk. The HAZID/ENVID has identified specific safety measures and control systems which will be incorporated into the final design of the Proposed Scheme.</p> <p>As required by the Construction, Design and Management (CDM) Regulations 2015, the Applicant will prepare a CDM Risk Register, to identify the potential risks associated with the construction of the Proposed Scheme. The CDM Risk Register will also outline the mitigation measures required to reduce construction risks to as low as reasonably practicable (ALARP).</p> <p>The Applicant has used professional experience of undertaking hazards/aspects identification and assessment of potential impacts on sensitive receptors across a number of energy and chemical facilities across the UK. This has included undertaking both qualitative and quantitative risk assessments to demonstrate that the measures which have been put in place at these facilities reduce risks to be ALARP.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			Based on the assumptions presented in ES Chapter 17 (Major Accidents and Disasters) (APP-053) and on the information presented above, the Applicant is confident that the measures which have been identified will ensure that the potential risks of the vulnerability of the Proposed Scheme to a major accident and/or disaster will be managed to be ALARP.
MAD.1.3	Applicant	<p>The Risk Record items 13 & 14 in Appendix 17.2 [APP-172] to the ES relate to loss of containment of CO₂, and the primary mitigation measure is to integrate a fail-safe emergency shutdown system. Can the Applicant:</p> <ul style="list-style-type: none"> i. comment on whether the design has considered the possibility of secondary containment to isolate any loss of primary containment; ii. comment on whether there has been any modelling done to understand the potential hazards related to major loss of containment of CO₂; and iii. explain how the effects of loss of containment of other gaseous hazardous substances, including amines, stored at the site during operation have been assessed. 	<p>i. The Applicant will not be storing carbon dioxide onsite, it will be connected to the Humber Low Carbon Pipeline for onward transport and storage. Any unforeseen loss of containment within the BECCS process onsite at Drax would trigger the immediate shut down of the plant and the controlled venting of carbon dioxide either via the main stack or the carbon dioxide main vent stack. The Applicant would also communicate with the operator of the transport and storage network to identify and respond to any issues or concerns associated with loss of containment.</p> <p>ii. The Applicant has undertaken Hazard Identification Studies (as required by The Health and Safety At Work etc. Act 1974 and The Management of Health and Safety at Work Regulations 1999) which recognise the potential risks associated with the loss of containment of CO₂ from the on-site Drax pipeline. As a result of these studies the need for modelling of accidental CO₂ releases was identified. A number of research projects have been undertaken to refine and validate the software used for modelling dense phase CO₂ releases and to further understand the potential hazards of a major release (HSE 2011). The Proposed Scheme will use accepted dispersion modelling tools to model the dispersion of CO₂ releases. The outcomes of this modelling will be reviewed and incorporated into the detailed design of the Proposed Scheme.</p> <p>The Health and Safety Executive (HSE) Published a paper in 2011 entitled "Assessment of the major hazard potential of carbon dioxide (CO₂)" in which they have undertaken an initial assessment of the hazards resulting from a large-scale release of CO₂. The HSE have undertaken modelling of CO₂ releases using industry standard software. Page 16 of the HSE Paper (2011) states that the hazardous range associated with the rupture of a gaseous phase CO₂ pipeline would be in the order of 100 to 200 m. The modelling undertaken by the HSE provides an indication of the potential extent of a gas cloud as a result of a loss of containment event from the on-site pipeline associated with the Proposed Scheme. On this basis, it is not anticipated that the CO₂ gas cloud would extend beyond the Drax Power Station Site. The reasonable worst consequence is anticipated to be harm to a small number of maintenance workers whose health and safety is managed via other legislation (e.g. Health and Safety at Work etc. Act 1974 and The Management of Health and Safety at Work Regulations 1999) and as such is excluded from the scope of this assessment. This will be confirmed by modelling to be undertaken by the Applicant as required under the Management of Health and Safety at Work Regulations 1999.</p> <p>iii. In respect of the Proposed Scheme, there are no other gaseous substances stored on site during the operation of the Proposed Scheme.</p> <p>The amine solvent is a liquid and the risks associated with the loss of containment of the amine solvent is assessed in Risk Record items 2, 3 and 6 in Appendix 17.2 (Environmental Statement Risk Record) (APP-172). Of these three risk record items, numbers 2 and 6 specifically consider the loss of containment of the solvent and item 3 considers the risks associated with waste product containing amine-based solvents. None of the three risk record items, identified here, are considered to result in a major accident and/or disaster as the reasonable worst consequence is harm to construction/maintenance workers, who are outside of the scope of the MA&D assessment.</p>
MAD.1.4	Applicant	Section 17.1.2 of ES Chapter 17 [APP-053] states that the vulnerability of the Proposed Development to an MA&D event during decommissioning is anticipated to be no worse than that for the construction phase.	<p>i. Paragraphs 17.5.2 and 17.5.3 of ES Chapter 17 (Major Accidents and Disasters) (APP-053) provide justification for the consideration of the construction and decommissioning phase together. Risks during the decommissioning phase have not specifically been included since the hazards are anticipated to be similar to those addressed within the construction and operational phases. No additional decommissioning hazards have been identified.</p> <p>Prior to decommissioning, a Decommissioning Environmental Management Plan (DEMP) will be prepared and approved by the Local Planning Authority. This plan will provide a framework within which all environmental, health and safety (EHS)</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		<p>i. Please provide evidence to support this statement.</p> <p>ii. What certainty can the ExA have that, at least in principle, the inherent features of the design would be sufficient to prevent, control and mitigate major accidents during this phase?</p>	<p>obligations during demolition and decommissioning will be identified and appropriate mitigation measures (including EHS monitoring and reporting commitments) to prevent adverse impacts will be detailed.</p> <p>In addition, a full EHS Departure Audit would be carried out prior to decommissioning. This would examine, in detail, all potential EHS risks existing at the Drax Power Station Site and make comprehensive recommendations for any remedial action required to remove such risks. Following completion of decommissioning, a Final Environmental Departure Audit would be carried out to ensure that all remedial work has been completed successfully.</p> <p>ii. As detailed in Paragraph 17.5.2 of ES Chapter 17 (Major Accidents and Disasters) (APP-053), the decommissioning phase of the Proposed Scheme will be undertaken in accordance with the regulatory requirements which are applicable at that time. As required by the Construction, Design and Management (CDM) Regulations 2015, the Applicant will prepare a CDM Risk Register, which identifies the potential risks associated with the decommissioning and demolition of the Proposed Scheme. It will also outline the mitigation measures required to reduce decommissioning/demolition risks to as low as reasonably practicable.</p> <p>The Hazard Identification Studies for the Proposed Scheme will consider whether the inherent features of the design would be sufficient to prevent, control and mitigate major accidents during the decommissioning/demolition phase. Where additional measures are required, these will be identified in the Hazard Identification studies and incorporated into the final design of the Proposed Scheme. The Health and Safety at Work etc. Act 1974 and The Management of Health and Safety at Work Regulations 1999 require the Applicant to undertake these studies and to implement any required mitigation measures.</p> <p>As required under the CDM Regulations 2015, during the decommissioning/demolition phase the Applicant will consider Good Engineering Practice to ensure that the risks associated with decommissioning/demolition are managed to be as low as reasonably practicable.</p>

12. TOPIC 12 NOISE AND VIBRATION

Table 12.1 – Noise and Vibration

ExA Ref.	Addressed to	Question	Applicant's Response
NV.1.1	Applicant	<p>ES Chapter 7 [APP-123] Section 7.1.7 states that the programme option where Units 1 & 2 are to be constructed at the same time presents a worst-case scenario for noise and vibration effects.</p> <p>Can the Applicant advise which items in column 1 of the Schedule Planner [APP-123] are the key activities relating to noise and vibration in order to assist the ExA in understanding the indicative duration and overlap of these activities?</p>	<p>The Applicant confirms that the key activities relating to noise and vibration during construction are earthworks and civils (piling). These are presented in the indicative programme shown in the Schedule Planner (APP-123) as occurring between September 2024 and February 2025.</p>
NV.1.2	Applicant	<p>On ES Figure 7.3 [APP-091] there are two locations noted as LT3,R4 and there are additional short term noise measurement locations (ST4 and ST5) which are not referred to in ES Chapter 7 [APP-043]. Can the Applicant provide a revised document correcting the labelling of LT3,R4 and confirm whether ST4 and ST5 will be used as locations for short term noise measurement?</p>	<p>The Applicant has revised Figure 7.3 (Operational Predicted Mitigated Noise Levels) (APP-091, Rev02 submitted at Deadline 2) of the ES and corrected the labelling of LT3,R4. Locations ST4 and ST5 correspond to permanent noise monitoring locations managed by the Applicant. ST4 and ST5 have been relabelled in ES Figure 7.3 (Operational Predicted Mitigated Noise Levels) as Permanent Noise Monitoring Location (PNML) 1 and PNML2. Information from PNML1 and PNML2 have been used to describe the contextual considerations in paragraph 7.9.19 of ES Chapter 7 (Noise and Vibration) (APP-043).</p> <p>The Applicant has also revised Figure 7.1 (Baseline Noise Survey and Sensitive Receptor Locations) (APP-089, Rev02 submitted at Deadline 2) of the ES for consistency.</p> <p>The updated versions of both Figure 7.1 (Baseline Noise Survey and Sensitive Receptor Locations) and 7.3 (Operational Predicted Mitigated Noise Levels) have been submitted at Deadline 2.</p>
NV.1.3	Applicant	<p>Tables 7.27 and 7.28 of ES Chapter 7 [APP-123] present the ambient day-time and night-time operational noise assessments. The column for predicted noise level does not allow for correction to account for the potential of tonality and intermittency in the operational noise arising from the Proposed Development. Can the Applicant explain why this is the case?</p>	<p>A correction of +5dB has been applied to specific noise levels (L_{Aeq}) to convert them into rating levels ($L_{A,r,Tr}$) in Table 7-25 and Table 7-26 of ES Chapter 7 (APP-043) in accordance with clause 8 of BS4142:2014+A1:2019 and this is described in paragraph 7.9.11.</p> <p>Table 7.27 and Table 7-28 present a comparison of ambient noise levels (L_{Aeq}) as opposed to rating levels $L_{A,r,Tr}$. This parameter does not require a correction as the intention is to compare predicted and baseline measured ambient noise levels (L_{Aeq}) to support the contextual considerations undertaken in relation accordance with clause 11 of BS4142:2014+A1:2019.</p>
NV.1.4	Applicant/ SDC	<p>Item NV1 in the REAC [AS-092] includes proposed noise limits for residential receptors and proposed</p>	<p>i. It is understood that this question is directed to SDC. However, for clarity, the Applicant believes that rating level noise limits applicable at the receptors are suitable and appropriate controls to be secured via the DCO. The corresponding noise limits applicable at 5m from the equipment will be derived during the detailed design process and will ultimately provide an additional</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		<p>noise limits at a 5m distance from the plant equipment. R17 of the dDCO [AS-076] includes the table for noise limits at residential receptors but not the table for the noise limits at a 5m distance from the plant equipment.</p> <ul style="list-style-type: none"> i. Can SDC comment on whether the Requirement should set the operational noise limits at the location of the noise source or at the receptors? ii. Can the Applicant explain why noise limits are not included for biodiversity receptors? iii. Can the Applicant confirm how the monitoring of operational noise limits will be secured in the DCO? 	<p>level of control through the noise mitigation scheme once it is approved. Item NV1 in the REAC (REP-015, Rev05 submitted at Deadline 2)) only provides an example of the set of noise limits at a 5m distance from the plant that will comply with the DCO requirement on operational noise. Item NV1 in the REAC has been amended to clarify this and it is also explained in paragraph 7.5.53 of ES Chapter 7 (Noise and Vibration) (APP-043).</p> <p>ii. The noise limits secured via the DCO will ensure that the noise effects at the biodiversity receptors are not worse than those described in ES Chapter 8 (Ecology) (APP-044).</p> <p>iii. Noise levels arising from Drax BECCS are low compared to the existing ambient noise levels at receptor locations. Therefore, it will not be possible to monitor operational noise levels from the Proposed Scheme at the noise sensitive receptors because they will be too low to measure. R17 (1) of the dDCO (AS-076, Rev05 submitted at Deadline 2) secures a Noise Mitigation Scheme to demonstrate that the rating levels limits in Table 1 will be met. R17 (2) of the dDCO, secures noise limits at 5m from the equipment. With this Noise Mitigation Scheme in place, it is not considered that ongoing monitoring would be necessary or appropriate. The details of the Noise Mitigation Scheme will need to be approved by the Local Planning Authority and if the Local Planning Authority had any concerns that the noise levels secured in the mitigation scheme were being complied with, the usual course would be for the Council's Environmental Health Officer to ask Drax for relevant measurements, which Drax would provide. In that circumstance, it is anticipated that operational noise levels would be measured at 5m and that the measured levels would be used in combination with noise predictions to predict and demonstrate compliance at the receptors.</p>
NV.1.5	Applicant	<p>There is no description included for the purpose of Table 1.3 in the Road Traffic Noise Assessment [APP-134]. The column headings are the same as Table 1.2 but the values are different. Can the Applicant provide an explanation to accompany Table 1.3?</p>	<p>The Applicant has revised Appendix 7.5 (Road Traffic Noise Assessment) of the ES (APP-134, Rev02 submitted at Deadline 2) to correct typographical errors on Table 1.3. Subheadings in Table 1.3 should have referred to '2018 Baseline' and '2029 Future Baseline' instead of '2029 Future Baseline + Committed AAWT' and '2029 With Development AAWT'.</p> <p>Two explanatory paragraphs have been included to describe the results of the tables.</p> <p>The updated version of Appendix 7.5 (Road Traffic Noise Assessment) has been submitted at Deadline 2.</p>
NV.1.6	Applicant/ SDC	<p>Table 7.26 in ES Chapter 7 [APP-043] shows adverse operational noise impacts at residential receptors R6 and R14 for night-time operational noise impacts before contextual considerations are applied.</p> <ul style="list-style-type: none"> i. The Applicant is asked what noise sources are contributing to the existing ambient noise levels at these receptors and whether it is anticipated that there will be any changes in the future baseline that would affect 	<p>i. Noise sources contributing to the existing ambient noise levels at residential receptors R6 and R14 correspond to farming, distant local traffic road and existing operations at Drax. The Applicant has undertaken an assessment of potential noise generating developments near noise sensitive receptors R6 and R14 in the Cumulative Assessment Matrix (APP-177, Rev02 submitted at Deadline 2) . There is potential for an increase in the baseline noise levels due to operational noise levels that may be associated with applications 2022/1257/FULM and 2021/0788/EIA. However, we have reviewed the potential impacts that any such changes may have on the contextual factors considered in ES Chapter 7 (APP-043) for the Proposed Scheme and can confirm that the assessment conclusions would not change.</p> <p>ii. The Applicant met SDC on 4 February 2022 to discuss the noise and vibration assessment methodology. During the meeting, the Applicant aligned the potential for adverse noise impact, with situations where the rating level was predicted to be between +5dB and +10dB above background noise levels, subject to potential modification to take account of contextual factors. The Applicant and SDC agreed the contextual considerations that would be developed in the ES as detailed in the Statement of Common Ground between Selby District Council, North Yorkshire County Council and Drax Power Limited (REP-018).</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		<p>the contextual considerations put forward?</p> <p>ii. SDC is asked if the contextual considerations put forward by the Applicant (7.9.15 to 7.9.20 of ES Chapter 7) and the noise rating levels set out in Table 1 of R17 in the dDCO [AS-076] provide sufficient certainty that no significant adverse noise effects occur?</p>	
NV.1.7	Applicant	Can the Applicant provide further information on the nature of anticipated construction work outside of core working hours for which it may be seeking prior approval of the RPA and the justification for the necessity of such works taking place outside of core working hours?	<p>The core hours for the project are set out in the Register of Environmental Actions and Commitments [REP-015], Commitment G5 which are: Monday to Friday 09:00 – 17:00 and 07:00 – 14:30 on Saturdays. As detailed in the Register of Environmental Actions and Commitments [REP-015, updated at Deadline 2] [G5 part 1]. Working hours outside of these periods, including bank holidays, will be agreed in advance with the LPA. As detailed in the REAC [NV3] noise monitoring during the construction phase, which will be included within the CEMP, will be carried out to demonstrate that the noise levels do not exceed the significant observed adverse effect level (SOAEL) for construction. It is also important to note that Drax is an operational site, and the working parameters are set by the Environmental Permit so operations outside that range (including construction activity for the proposed scheme) are not permitted.</p> <p>Works that are anticipated that could take place outside those hours (falling within G5), and the justification for this, are outlined below:</p> <ul style="list-style-type: none"> q. Some construction activities, such as concrete pouring, cannot be stopped once started as this can affect structural integrity and so may need to continue outside core hours. r. As detailed in the Proposed Changes Application Report (AS-045) open cut trenching across roads would take place overnight for safety reasons (if, for example, it is deemed that a full road closure is required to carry out the work safely) and to minimise impacts to the local road network. s. Some quiet activities, for example equipment assembly, may be carried out outside the standard working hours within existing buildings or buildings constructed as part of the Authorised Development – these would be no noisier than is currently being emitted during normal operating conditions (these activities would fall within REAC G5, part 3 and therefore would not require LPA approval). t. Non-destructive testing which may need extended hours when there are limited number of staff on site for safety reasons. u. As detailed in the Outline Construction Traffic Management Plan (REP-011) some deliveries of AILs would take place at night for safety reasons and to minimise impacts to the LRN and strategic road Network and this would be agreed in advance with the LPA. v. Activities required as a result of emergency conditions (these activities would fall within REAC G5, part 3c and therefore would not require LPA approval).

ExA Ref.	Addressed to	Question	Applicant's Response
NV.1.8	Applicant	<p>i. Can the Applicant explain what activities will take place on site during the one-hour start-up and shut-down window each day?</p> <p>ii. Also, how will the scope of the activities permitted to take place during this window be controlled by the DCO?</p>	<p>i - As set out in Chapter 2 (Site and Project Description) of the ES (APP-038) paragraph 2.3.15 start-up and shutdown activities would take place in a one-hour window either side of standard working hours. These activities consist of:</p> <ul style="list-style-type: none"> a. Start-up activities: opening up the site, arrival of workers, changing into work wear and pre-work briefings; and b. Shutdown activities: changing out of work gear, departure of workers, post-work briefings, closing and securing the site. <p>ii – The REAC is amended at Deadline 2 to include reference to the above activities during the start-up and shutdown periods in commitment G5, which in turn means that the scope of activities during these periods would be secured via the CEMP.</p>
NV.1.9	Applicant	<p>The ExA notes in item G5 of the REAC [AS-092] that the construction working hours are proposed to be included in the CEMP. However, can the Applicant explain why this approach is taken as opposed to including an equivalent Requirement for construction hours to R20 of the Drax Repower DCO?</p>	<p>It is correct that a different approach has been taken to the Drax Repower DCO. The Applicant considered the restriction on construction hours sat better in the CEMP alongside other restrictions and controls on how construction should be undertaken. Ultimately the Applicant's view is that the construction hours can be secured and enforced via either approach, as in both cases the construction hours would be subject to a Requirement that is legally binding on the undertaker.</p>
NV.1.10	Applicant	<p>Can the Applicant identify the location of any evidence in the submitted documents for the conclusion in Tables 5-1 and 6-1 of the PCAR [AS-045] that vibration levels due to the works required for the two proposed changes are not expected to exceed the SOAEL at the nearest receptors.</p>	<p>Evidence was not included in the PCAR (AS-045). However, the Applicant can confirm that a quantitative vibration compaction assessment was undertaken in accordance with Annex E(Informative) of BS5228-2:2009+A1:2014 to inform the submission. Based on worst case assumptions, the results suggest that vibration levels Peak Particle Velocities (PPVs) due to vibratory compaction will be 0.77 mm/s during start up and run-down and 0.47 mm/s during steady state, at the nearest vibration sensitive receptor. It should be noted that start up and run-down will occur for a short period of time. Therefore, the Significant Observed Adverse Effect Level (SOAEL), defined as 1mm/s in ES Chapter 7 (Noise and Vibration) (APP-043), would not be exceeded.</p>

13. TOPIC 13 PLANNING POLICY AND LEGISLATION

Table 13.1 – Planning Policy and Legislation

ExA Ref.	Addressed to	Question	Applicant's Response
PPL.1.1	Applicant	<p>Paragraph 3.2.12 of The Planning Statement [APP-032] states that for any application accepted for Examination before designation of the revised energy NPSs, the original suite of NPSs would have effect and the revised NPSs would only have effect as primary policy in relation to applications accepted for Examination after their designation. What is the legislative or policy basis for this assumption?</p>	<p>The policy basis for the Applicant's position, in respect of the consideration of the Application against the NPSs and emerging NPSs, as set out at Paragraph 3.2.12 of the Planning Statement (APP-032), is the text provided at paragraph 1.6.2 of Draft EN-1, which states the following:</p> <p><i>"The Secretary of State has decided that for any application accepted for examination before designation of the 2021 amendments, the 2011 suite of NPSs should have effect in accordance with the terms of those NPS. The 2021 amendments will therefore have effect only in relation to those applications for development consent accepted for examination after the designation of those amendments"</i>.</p> <p>The Applicant does however consider that the Draft NPSs are nonetheless an 'important and relevant' consideration for the purposes of section 104(2)(d). This is supported by paragraph 1.6.3 of Draft EN-1, which states:</p> <p><i>"However, any emerging draft NPSs (or those designated but not having effect) are potentially capable of being important and relevant considerations in the decision-making process. The extent to which they are relevant is a matter for the relevant Secretary of State to consider within the framework of the Planning Act and with regard to the specific circumstances of each development consent order application."</i></p>

14. TOPIC 14 SCOPE OF DEVELOPMENT

Table 14.1 – Scope of Development

ExA Ref.	Addressed to	Question	Applicant's Response
N/A	N/A	No questions at this time.	

15. TOPIC 15 SOCIO ECONOMIC

Table 15.1 – Socio Economic

ExA Ref.	Addressed to	Question	Applicant's Response
SE.1.1		<p>Paragraph 57 of the NPPF states that planning obligations should only be sought where they meet all of the following 3 tests:</p> <ul style="list-style-type: none"> • Necessary to make the development acceptable in planning terms. • Directly related to the development. • Fairly and reasonably related in scale and kind to the development. <p>i. Can the Applicant please provide evidence that the proposed s106 agreement meets these tests.</p> <p>ii. Are the matters outlined in the s106 Heads of Terms backed up, or justified, by development plan policy and/ or supplementary planning documents?</p> <p>iii. Could the matters outlined in the s106 Heads of Terms be secured by way of a Requirement?</p> <p>iv. Without the s106 agreement, would there be a harmful effect?</p>	<p>At Deadline 1 the Applicant submitted a draft section 106 agreement which included obligations in relation to the local employment plan and ecological off-site improvement works and river habitat. The Applicant also noted at Deadline 1 that it was in discussions with the Councils as to whether the local employment plan obligations could instead be secured by way of a Requirement in the DCO. The Applicant has now agreed with the Councils that the local employment plan obligations can be included as a requirement, and the Applicant has reflected this in the draft DCO submitted at Deadline 2. The community liaison group obligations had already been removed from the draft section 106 agreement, and a new requirement in this respect appears in the draft DCO submitted at this Deadline 2.</p> <p>The Applicant has therefore set out below how the remaining planning obligations, relating to ecological off-site improvement works and river habitat, satisfies the relevant tests.</p> <p>i. The planning obligation satisfies the relevant tests.</p> <p>The off-site works and habitat are required for two reasons:</p> <p>As mitigation or compensation for effects resulting from the Scheme – there is temporary and permanent habitat loss associated with the Scheme. Areas have therefore been proposed for the provision of compensatory habitat, including within the Off-Site Habitat Provision Area. This habitat creation is therefore needed to mitigate and compensate for the adverse effects of the Scheme.</p> <p>To provide biodiversity net gain in connection with the Scheme – The Applicant has committed to achieving a 10% net gain in biodiversity. As this is not achievable entirely within the Order limits, the Applicant has focussed on provision off-site in order to meet the 10% BNG objective.</p> <p>In both cases, the need to provide ecological improvements and biodiversity net gain off-site is as a direct result of the Proposed Scheme and its effects. The obligations either secure mitigation or compensation, or secure positive impacts of the Proposed Scheme – the Applicant's position is that that mitigation / compensation and those positive impacts should be taken into account in favour of the Scheme and go to making the Scheme acceptable in planning terms in order that development consent can be granted. Given the obligations are related directly to the Scheme's impacts (they provide compensation for, and provide BNG calculated based on, habitats lost as a result of the Scheme), they are considered to be fairly and reasonably related in scale and kind. See also the Applicant's comments in [AS-017].</p> <p>ii. Policy - The obligation remaining in the section 106 agreement is justified by development plan policy, namely Policy ENV1 of the Selby District Local Plan (2005), which requires development to take account of the potential loss, or adverse effect upon wildlife habitats. Also relevant is Policy SP15 of the Selby District Core Strategy Local Plan (2013), which states the council will support biodiversity improvements and states that schemes should "protect, enhance and create habitats to both improve biodiversity resilience to climate change and utilise biodiversity to contribute to climate change mitigation and adaptation". Policy SP18 specifically seeks to ensure that development proposals seek to produce a net gain in biodiversity by designing-in wildlife and retaining the natural interest of a site where appropriate.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
			<p>Policy SP18 also seeks to encourage the incorporation of positive biodiversity actions, as defined in the local Biodiversity Action Plan, at the design stage of new developments or land uses.</p> <p>Emerging draft NPS EN-1 provides that “Although achieving biodiversity net gain is not an obligation for projects under the Planning Act 2008, energy NSIP proposals should seek opportunities to contribute to and enhance the natural environment by providing net gains for biodiversity where possible” (paragraph 4.5.2).</p> <p>In terms of emerging local policy, Selby District Council’s Publication Local Plan includes Policy NE3 – Biodiversity Net Gain (Strategic Policy) which requires that “All eligible development proposals to provide delivery of at least a 10% net gain in biodiversity”. The Policy refers to commitments to delivery being through section 106 agreements.</p> <p>East Riding of Yorkshire’s Proposed Submission Local Plan Update includes Policy ENV1: Integrating high quality design, which provides that a high quality of design will be achieved by (amongst other things) incorporating, nature conservation and biodiversity net gain into the proposal. Policy ENV5: Enhancing biodiversity and geodiversity also includes a requirement that proposals achieve a measurable BNG at least in line with national requirements.</p> <p>The Environment Act 2021 includes BNG requirements for built development. This part of the Act will not be enacted until supporting Regulations are in place, which the Government has indicated will take approximately two years. It is not mandatory until then, however, the direction of travel is clear in terms of the intention being to have a legal requirement with respect to BNG, and in accordance with that, the Applicant is committing to obligations in order to deliver 10% BNG as part of the Proposed Scheme.</p> <p>iii. The obligation remaining in the section 106 agreement cannot be secured by way of a Requirement to the DCO, as the Order relates to the Order Limits, whereas the ecological off-site improvement works, and river habitat obligations are required to be implemented beyond the Order limits. For this reason, the section 106 agreement is drafted to bind both the land within Drax’s freehold ownership within the Order limits as well as the Off-Site Habitat Provision Area. Further drafting will also be added in due course in respect of additional third-party land that will enable river BNG to be delivered. To the extent the delivery of ecological mitigation, enhancements and biodiversity net gain is proposed within the Order limits, that has been secured via Requirement 7 to the dDCO. The s106 obligation has been drafted to dove tail with that requirement.</p> <p>iv. The Off-site Habitat Provision Area forms an integral part of the mitigation and compensation measures designed to address effects on Important Ecological Features, as assessed in the Ecology chapter of the Environmental Statement. The Off-site Habitat Provision Area is required in order to address significant effects on habitats, bats, birds, reptiles, terrestrial invertebrates and green-winged orchids. Without the off-site Habitat Provision Area, these harmful effects could not be fully mitigated.</p>

16. TOPIC 16 TRAFFIC TRANSPORT AND WASTE MANAGEMENT

Table 16.1 – Traffic, Transport and Waste Management

ExA Ref.	Addressed to	Question	Applicant's Response
TTW.1.1	Applicant	Please could the Applicant provide further information on the extent and duration of the road closures required for construction delivery and access as highlighted in Section 2.3 of ES Chapter 2 [APP-038] and the likely dimensions of AILs.	<p>As stated in Section 2.3.32 of Chapter 2 (Site and Project Description) (APP-038), the extent and duration of the road closures is to be determined.</p> <p>As stated in Section 5.1.3 of the CTMP (REP-011, Rev05 submitted at Deadline 2), deliveries of AILs from Goole Inland Port will take the following route:</p> <ul style="list-style-type: none"> • A161 > M62 > A614 > A645 > Drax Power Station South Gate Entrance <p>NYCC, ERYC and National Highways will be consulted on any proposed AIL movement associated with the construction of the Proposed Scheme, which will include details on road closures and diversion routes.</p> <p>It is anticipated that 15 AIL deliveries will be required during the construction phase of the Proposed Scheme. All AIL deliveries are expected to be at night to minimise traffic disruption. The Applicant's AIL strategy is to transport AILs by road from the Port of Goole to Drax Power Station with temporary mitigation measures included in the CTMP (REP-011, Rev05 submitted at Deadline 2) to manage the movements including all necessary notifications. This has been agreed with NYCC, as noted in the SoCG (REP-018).</p> <p>ERYC agree with the Applicant's position in respect to the selected route and outline process set out in the CTMP (REP-011, Rev05 submitted at Deadline 2). Discussions will continue between the parties to ensure the practical implementation of the measures discussed in the CTMP (REP-011, Rev05 submitted at Deadline 2).</p> <p>The proposed routing strategy has also been agreed with National Highways, as noted in Section 4.2.29 in the SoCG (AS-034).</p> <p>The extent and duration of each AIL will be confirmed through a Special Order Application (following the guidance prevalent at the time) which will be completed before the scheduled date of any AIL move (currently this is required 10 weeks in advance), however, they will be moved overnight to minimise disruption.</p> <p>The haulage company will adhere to National Highways Aide Memoire for notification requirements for the movement of Abnormal Indivisible Loads or vehicles by road when not complying with The Road Vehicles (Construction and Use) Regulations 1986 (commonly known as C & U)", when submitting the Special Order application.</p> <p>The haulage company will use National Highways electronic service for abnormal loads (ESDAL).</p>
TTW.1.2	Applicant/ ERYC	Table 5.1 of ES Chapter 5 [APP-041] summarises the consultation with stakeholders. Can the Applicant and ERYC confirm if the structural review of the structures along the AIL route has been undertaken and if so provide the results along with an explanation of the effect of the Proposed Development on the proposed AIL route?	<p>It has been agreed between the Applicant and ERYC that a structural review will be undertaken at a time closer to the first AIL delivery. This decision was agreed on the basis that the integrity of the structures may change between now and the time of the first AIL movement and therefore, any structural survey undertaken now would be abortive.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
TTW.1.3	Local Highways Authorities/ NH	The methodology, baseline data and assessment of the potential effects of the Proposed Development on traffic and transport are set out in ES Chapter 5 [APP-041]. NH and the Local Highways Authorities are asked whether the methodology, baseline data and assessment are acceptable?	<p>The methodology, baseline data and assessment of the potential affects has been agreed for all relevant topics with NYCC and ERYC as set out in the Statements of Common Ground (AS-030 and AS-036).</p> <p>The methodology, baseline data and assessment of the potential affects has been agreed for the majority of relevant topics with National Highways (as set out in the SoCG AS-034), with some further additional clarification and sensitivity tests being undertaken in a separate Technical Note to address all remaining topics. This Technical Note can be found at Appendix 3 (document reference 8.9.3).</p>
TTW.1.4	Applicant	Section 5.5.24 of ES Chapter 5 [APP-041] states that the ES has been prepared during the COVID-19 pandemic which has drastically changed travel patterns in the short-term and, potentially medium to longer term. It also states that the survey data used for the assessment is from March and October of 2018, which is before the pandemic. Can the Applicant explain how the effects of the COVID-19 pandemic on medium to longer term travel patterns have been factored into the assessment?	<p>Section 5.7.6 of Chapter 5 (Traffic and Transport) of the Environmental Statement (APP-041) sets out the growth assumptions applied for the assessment. The baseline traffic flow data was taken from 2018 (pre COVID-19) and growth assumptions were applied to establish a 2022 baseline in absence of data that could be relied upon at the time of the assessment. This was agreed with National Highways, and the Local Highway Authorities.</p> <p>The future scenarios assumed further growth in line with the Department for Transport's Trip End Model Presentation Programme (TEMPRO) which is the accepted industry standard for appraising future demand scenarios. No adjustments were made to account for COVID-19 impacts.</p> <p>However, following further dialogue with National Highways, the Applicant has undertaken a review of the traffic flows in the area for 2022 and compared this to 2018, and the results do show a reduction of traffic in this location of between 5% to 18%. Section 9.3 and Appendix H of the 'Response to National Highways Relevant Representations (Sept 2022) – Technical Note 1' (herein referred to as 'Technical Note') (document reference 8.9.3) presents this data, along with the results of subsequent re-testing of the future demand which is presented in sections 6, 8 and 9 of the Technical Note and Appendices D, F, G, J, K and L of the Technical Note.</p> <p>In light of this data, the Applicant considers that the growth assumptions, and therefore the results of the assessment of impacts presented in the Environmental Statement (APP-041), are considered to be overly robust and conservative and do not account for the reduction in traffic flows 2018-2022 caused by the travel pattern changes as result of COVID-19.</p>
TTW.1.5	NH	<p>Table 5.3 of ES Chapter 5 [APP-041] states that for driver delay, the magnitude of impact is derived using professional judgment informed by the predicted increase in vehicle delay and whether a junction is at, or close to capacity.</p> <p>As an example, Table 5.28 shows that the driver delay increases on the A645 arm from 25.46 seconds to 47.6 seconds between Scenario 4 (do minimum) and Scenario 5 (do something). The RFC nears the capacity for that junction arm. The driver delay effects are however determined to be negligible.</p> <p>NH is asked if it is satisfied with the Applicant's calculation of the magnitude of impact for driver delay in the assessment?</p>	<p>In the SoCG with National Highways (AS-034), an updated version of which will be submitted at Deadline 2, National Highways agree to the general conclusions drawn about the capacity assessments undertaken which is illustrated in Ref 4.2.19 in Table 4.2 of the SoCG with National Highways (AS-034).</p> <p>In addition, further sensitivity analysis has been conducted and presented in sections 6, 8 and 9 of the Technical Note (Appendix D, F, G, J, K and L) which presents the findings of changes in some of the parameters such as a more realistic (reduced) demand scenario, which has resulted in a reduction of impacts when compared to the results present in ES Chapter 5 (APP-041) for driver delay.</p> <p>The Applicant is awaiting a response from National Highways to confirm if they are satisfied with the Applicant's calculation of the magnitude of impact for driver delay in the assessment.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
TTW.1.6	Applicant	<p>Section 5.9.57 ES Chapter 5 [APP-041] states that it is understood that the M62 junction dumbbell roundabout improvements are due to be implemented between 2024 – 2029.</p> <p>i. Have the cumulative effects of the works to the junction happening concurrently with the Proposed Development, potentially resulting in further driver delay, been assessed?</p> <p>ii. Can the Applicant give the ExA an update on the status of discussions with ERYC and NH to understand the timescale and mechanism to upgrade the junction?</p> <p>iii. Can the Applicant provide information on proposals to mitigate the significant impacts at J36 in the scenario that the dumbbell roundabout improvements are not implemented?</p>	<p>i) The cumulative effects of works to the junction happening concurrently with the Proposed Scheme have not been assessed as it considered that it is a matter for National Highways to determine the most appropriate method of traffic management and timing of an to upgrade the junction. For example, works could be undertaken outside of peak hours.</p> <p>As part of upgrading the junction, National Highways would follow all relevant procedures, including the use of signage from the Traffic Signs Manual Chapter 8 to ensure driver delay is minimised while the highway improvement scheme is completed. Furthermore, at this stage the Applicant has no details on what the works may involve from a construction point of view, the traffic management measures that may be required, and the delivery timeline (e.g. it could be put in place after Scheme construction).</p> <p>ii) In relation to the junction upgrade, Relevant Representation was received from National Highways and included the following details:</p> <ul style="list-style-type: none"> • The scheme was derived as part of the East Riding of Yorkshire Local Plan which was adopted in April 2016. The scheme is currently under review, with modelling being carried out to understand whether the mitigation is still required (ERYC are currently undertaking the 5 year Local Plan review); • The East Riding Infrastructure Study (2014) was the driver for the mitigation and includes a description and very basic plans within Appendix G of Appendix E; and • Contributions have started to be collected by ERYC but remain short of the cost of the scheme. Therefore, although committed within the ERYC Local Plan timescales for delivery are not committed. <p>The Applicant is aware National Highways have obtained a Section 106 contribution from development 'ID 44 Erection of employment and office space' (ES Appendix 18.2: Short List of Other Developments (AS-013), an updated version of which will be submitted at Deadline 2) which is to be put towards the costs of design, costing and construction of required improvements listed in the Local Plan Infrastructure Study (June 2014) and the Local Plan Infrastructure Delivery Plan (March 2015) regarding junction improvements at the M62 Junction 36.</p> <p>The Applicant is also aware that National Highways sought financial contributions from development ' ID 99 Erection of two industrial units for B8 and E(g) use, incorporating two storey office block for associated business use, with associated works', however withdrew their Holding Direction as the scheme was already contributing to the Airmyn Road roundabout works.</p> <p>It is understood that National Highways are also investigating the potential to seek a financial contribution from development 'ID 100 Erection of 14 industrial/warehouse units (Use Classes E g(ii) and (iii), B2 and B8) and use of land as an EV charging station' in relation to the junction improvement scheme.</p> <p>Although contributions are being sought for this scheme, the delivery timescales are unknown and may not be delivered before the Proposed Scheme.</p> <p>In relation to (iii), notwithstanding the above, the Applicant has outlined mitigations to manage the impacts of the Proposed Scheme through the CTMP (REP-011, Rev05 submitted at Deadline 2) and CWTP (REP-013, Rev03 submitted at Deadline 2) as the impact of the Proposed Scheme on the operation of the M62 Junction 36 is temporary. SMART Measures include the provision of minibuses, car park control measures and monitoring measures which can inform the appropriate measures to employ under the prevalent traffic conditions. A dedicated Travel Plan Coordinator will be appointed to manage traffic associated with the Proposed Scheme.</p>

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			Given the temporary impacts, it is not considered that Drax should carry out works itself, and this was accepted by all parties on the Drax Re-power project.
TTW.1.7	Applicant	<p>The Outline CTMP [AS-086] section 5.5.2 describes potential mitigation requirements to facilitate the proposed AIL route including street furniture removal, overhead lines lifted or switched off, and vegetation pruned.</p> <p>Can the Applicant give the ExA an update on the status of discussions with NH, NYCC and ERYC to understand the likely logistics for AILs from the Port of Goole via the M62?</p>	<p>The Applicant has updated the Outline CTMP (REP-011, Rev05 submitted at Deadline 2), submitted at Deadline 2, to address comments from National Highways in relation to the movement of AILs (outlined in SoCG section 4.2.24 (REP-021)). Updates relate to the following</p> <ul style="list-style-type: none"> • A Special Order Application will be completed 10 weeks (or duration as stated at the time of application) before the scheduled date of any AIL move; • The haulage company will adhere to National Highways "Aide Memoire for notification requirements for the movement of Abnormal Indivisible Loads or vehicles by road when not complying with The Road Vehicles (Construction and Use) Regulations 1986 (commonly known as C & U)"; and • The haulage company will use National Highways electronic service for abnormal loads (ESDAL). <p>Matters relating to the condition of the A645 within NYCC's boundary (comments raised by NYCC) have been addressed through discussions with NYCC in the updated Outline CTMP (REP-011, Rev05 submitted at Deadline 2).</p> <p>No comments have been received from ERYC regarding the Outline CTMP. The AIL logistics are agreed in the SoCG (REP-023) at Section 4.1.5 in Table 4.1.</p> <p>In terms of the works associated with AILs, they will be secured through the powers in the DCO, which is set out in article 9 and Schedule 5 and Work No. 8 within Schedule 1 of the dDCO.</p>
TTW.1.8	Applicant	<p>Section 4.7.1 of the Outline CTMP [AS-086] states that access to create enhanced habitats within agricultural land identified in the Order Limits would be via existing farm vehicle accesses on New Road and Pear Tree Avenue.</p> <p>Considering that the existing access passes through the scheduled monument of Drax Priory, have the existing vehicle accesses been assessed and confirmed as appropriate for the access and vehicle requirements of the Proposed Development?</p>	<p>The Applicant can confirm that the existing access does not pass through the scheduled monument of Drax Priory.</p> <p>Whilst the existing accesses do not pass through the scheduled monument of Drax Priory, consideration has been given to their suitability for the works in location which, as detailed in the Outline Landscape and Biodiversity Strategy (AS-094), comprise the creation of new hedgerows and enhancement of existing ones. Works will include planting new hedgerows (notch planted in cultivated ground) and cutting back existing hedgerows in order to encourage growth. In order to carry out these works vehicles would be used that would be no larger than then existing vehicles which use the accesses (e.g. agricultural vehicles using the accesses on New Road and Pear Tree Avenue).</p> <p>The additional vehicle movements through these accesses as part of the Proposed Scheme are likely to be minimal given the nature of the works.</p>
TTW.1.9	Applicant	<p>Section 5.9.80 of ES Chapter 5 [APP-041] refers to planned and unplanned periods of maintenance in the operation phase. Can the Applicant confirm:</p> <ol style="list-style-type: none"> whether it is anticipated that the planned periods of maintenance will require significant numbers of additional staff; the frequency of planned maintenance; 	<ol style="list-style-type: none"> It is anticipated that an additional 100 staff would be required on Site during a BECCS outage. This will be consistent with the current reoccurring outage programme for Unit 1 and 2 . Unit 2 will be the first BECCS outage in 2031 with Unit 1 following in 2033. This is further discussed in the response to the next question. <p>Given the relatively low number of staff on site for a temporary outage (100), the traffic and transport effects are expected to be negligible.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		iii. and iii. the associated traffic and transport effects.	
TTW.1.10	Applicant	Section 4.1 of the Outline CTMP [AS-086] explains that the number of proposed parking spaces in the construction phase construction ensures operational resilience throughout the construction phase as the existing operational units will still require maintenance and outages. Have the cumulative traffic and transport effects of the Proposed Development plus the additional traffic associated with maintenance and outages of the existing operational units been accounted for in the assessment?	<p>Forthcoming planned maintenance periods are summarised as follows:</p> <ul style="list-style-type: none"> • Unit 3 Major Outage <ul style="list-style-type: none"> ○ 1st April 2024 – 23rd June 2024 • Unit 1 Major Outage <ul style="list-style-type: none"> ○ 1st April 2025 – 24th June 2025 • Unit 4 Major Outage <ul style="list-style-type: none"> ○ 1st April 2026 – 24th June 2026 • Unit 2 Major Outage <ul style="list-style-type: none"> ○ 1st April 2027 – 24th June 2027. <p>During the time when each major outage occurs, there are no specific arrangements with the local highway authority or National Highways in place, unless a large load is required to be delivered to site, then the appropriate notification procedures are followed.</p> <p>The cumulative traffic and transport effects of the Proposed Development plus the additional traffic associated with maintenance and outages of the existing operational units have not been accounted for in the assessment.</p> <p>The Applicant will proactively manage the construction phase of the Proposed Scheme and incorporate any planned maintenance outages associated with Drax Power Station.</p> <p>In the unlikely event that a peak outage period is planned to overlap with the peak period of construction of the Proposed Scheme, the Applicant will draw upon the travel planning measures contained within the CWTP (REP-013, Rev03 submitted at Deadline 2) for the Proposed Scheme. For example, the Applicant is able to provide a greater number of minibuses (a measure set out in the CWTP). In addition, through the procurement process for outage works, the Applicant is able to manage access to site for outage staff, for example, providing a limited allocation of parking spaces to constrain single vehicle occupancy trips. All parties would work together to minimise the impact of outages and the construction of the Proposed Scheme on the local and strategic road networks.</p>
TTW.1.11	Applicant	Can the Applicant provide further information on the maximum duration for which the PRow 35.6/6/1 will be stopped up for and how the duration is secured through the dDCO?	<p>Public Right of Way 35.6/6/1 will be temporarily stopped up to enable the establishment of the planting in the Fallow Field in the Off-site Habitat Provision Area.</p> <p>The temporary stopping up of Public Right of Way 35.6/6/1 will be secured through Requirement 12 of the dDCO within Schedule 2 which sets out the requirements to temporarily stop up Public Rights of Way.</p> <p>The duration of the temporary closure is estimated to be up to 2 months. The nature for the requirement of the closure is to enable the establishment of the planting in the Fallow Field in the Off-site Habitat Provision Area. Therefore, it is considered that there would be no significant effects on PRow users, and diversions would be in place to cater for the existing movement.</p>
TTW.1.12	Applicant	Section 6 of the Framework CWTP [APP-120] sets out the sustainable travel plan measures. Can the Applicant comment on whether the	There are a number of schemes where sustainable travel measures are required to enable access to large employment sites, including industrial areas of new build and decommissioning sites. One such examples is Sellafield's Transport and Movement Plan which sets out a number of measures to control the number of car borne

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		<p>proposed SMART measures have been used and implemented effectively on a similar scheme?</p>	<p>trips to the Sellafield Site and other satellite offices (off-site) including in Whitehaven. Measures include the provision of parking permits (priority given for car sharers), park and ride provision, and other car park management strategies and bus provision. These have been successfully implemented, and are an integral part to the commute for Sellafield workers in West Cumbria.</p> <p>The Travel Plan measures included within the Outline Construction Worker Travel Plan (REP-013, Rev03 submitted at Deadline 2) are summarised as follows:</p> <ul style="list-style-type: none"> • Smart Measure 1: Travel Plan Coordinator • Smart Measure 2: Travel Plan Steering Group • Smart Measure 3: Construction Worker Travel Surveys • Smart Measure 4: Travel Plan Marketing • Smart Measure 5: Car Park Management Strategy • Smart Measure 6: Car Sharing and Minibuses • Smart Measure 7: Construction Worker Facilities • Smart Measure 8: Senior Staff to Lead By Example • Smart Measure 9: Monitoring of Traffic Flows <p>It is also noted that similar measures were also included in Eggborough CCGT , which obtained DCO consent on the 20 September 2018 and Keadby 3 Carbon Capture Power, which obtained DCO consent on 7 December 2022 which are located within a similar geography to Drax.</p>
TTW.1.13	Applicant	<p>NH raised in its RR [RR-097] that collision data analysis should cover the period of 2015-2019 and that collision data should include all recorded collisions on the SRN. The ExA notes the Applicant's response to the RR [AS-038] and requests that the additional analysis to identify any pre-existent trends that the Proposed Development may exacerbate is submitted into the Examination.</p>	<p>The Applicant has undertaken a collision data analysis to cover the full five-year period between 1 January 2015 – 31 December 2019 inclusive, at the request of National Highways and the ExA.</p> <p>The analysis is presented in section 3 of the Technical Note (Appendix 3 of these FWQs (document reference 8.9.3)) which is currently under review by National Highways.</p> <p>The analysis concluded that the frequency, severity, and spatial distribution of collision does not indicate a pattern that indicates there are inherent highway safety issues within the study area.</p>
TTW.1.14	Applicant/ NH	<p>NH states in its RR [RR-097] that the worst-case peak period traffic flows for M62 J36 may be outside of the traditional network peak and because of this there may be a requirement to assess the shoulder peak periods of the worst-case peak periods.</p> <p>i. The Applicant is asked to clarify whether the worst-case traffic flows have been assessed at M62 J36.</p>	<p>i) The Applicant has reviewed the peak period of assessment following National Highways' RR (RR-097) requesting further interrogation of the data provided by National Highways. Following this review, the cumulative worst-case peak period is 7:30-8:30 for the AM and 16:30 – 17:30 for the PM. This is a slight change for the AM peak only, which was assessed to be 7:15-8:15. The updated results of this analysis are presented in section 5 of the Technical Note (Appendix 3 (document reference 8.9.3) which is currently under review by National Highways. It should be noted that the revised assessment results in a lower level of impact at M62 J36. The overall effects as presented in the ES Chapter 5 (Traffic and Transport) (APP-041) has not changed.</p> <p>ii) Further explanation of the mainline sensitivity has been presented to National Highways in section 2 of the Technical Note (Appendix 3 of these FWQs (document reference 8.9.3)) which is currently under review.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		<p>ii. The Applicant and NH are asked for an update on discussions regarding the level of sensitivity of the M62 mainline east and west given the high sensitivity of J36.</p>	<p>A low sensitivity was assigned on the basis of the type of user groups who may use it and the type of land uses the link passes through. This is in line with IEMA guidance (1993) 'Guidelines for the Environmental Assessment of Road Traffic' that identify groups, locations and areas which may be sensitive to changes in traffic conditions. Given the existing very high traffic flow on the M62 J36, the sensitivity to an increase in traffic will be low, when compared to, for example, the same increase on a rural single track lane adjacent to a school.</p> <p>As such, the M62 mainline was assigned a low sensitivity on the basis that there are no sensitive locations adjacent to the M62 mainline, such as hospitals, churches, schools or historical buildings and on the basis that pedestrians, cyclists and horse riders are prohibited from using motorways. In the event that the M62 mainline was assigned a very high sensitivity, the level of traffic associated with the Proposed Scheme in relation to the Annual Average Daily Traffic on the mainline would be very low, and would have negligible impact on the operational performance of the mainline flow.</p>
TTW.1.15	NH	<p>NH is asked if it is satisfied with:</p> <p>i. the wording of R15 (Construction Traffic Management Plan) and R19 (Decommissioning Traffic Management Plan) in the dDCO [AS-076]; and</p> <p>ii. the content of the Outline CTMP [AS-086].</p>	<p>To date, National Highways have not raised any queries regarding the wording of R15 or R19 within the dDCO (AS-076, Rev05 submitted at Deadline 2).</p> <p>National Highways have provided comments on the Outline CTMP (REP-011, Rev05 submitted at Deadline 2) through their Relevant Representation. These comments have been addressed in the updated Outline CTMP and it is understood that National Highways are content with these changes.</p>
TTW.1.16	NH	<p>The ExA notes that NH in its RR [RR-097] stated that it will withhold comment on the robustness of the proposed assessment of the J36 dumbbell roundabout capacity until it has finished reviewing ES Appendix 5.6 - Junction Modelling Outputs [APP-124]. NH is asked to provide comment on:</p> <p>i. whether the assessment is appropriate; and</p> <p>ii. the significance of cumulative impacts of the increased demand on the J36 dumbbell roundabout.</p>	<p>In the SoCG with National Highways (REP-021), an updated version of which will be submitted at Deadline 2, National Highways agree to the general conclusions drawn about the capacity assessments undertaken (see Ref 4.2.19 in Table 4.2 of the SoCG).</p> <p>Following a request from NH, further sensitivity analysis was undertaken on this matter, set out in section 6, 8 and 9 of the Technical Note (Appendix D, F, G, J, K and L). This concludes that the impact of the Proposed Scheme on the operation of the junction would be negligible.</p> <p>The Applicant is awaiting a response from National Highways to confirm if they are satisfied with the Applicant's assessment calculation of the magnitude of impact for driver delay in the assessment.</p>
TTW.1.17	Applicant	<p>The Needs and Benefits Statement [APP-033] says once the BECCS units are operational, up to 375 full-time equivalent employees will be employed at the site. However, the annual forecasts for solid waste in the operational phase provided in the Materials and Waste Chapter of the ES [APP-049] are based on 50 employees.</p> <p>Can the Applicant confirm the reason for the apparent discrepancy and whether the forecasts for solid waste in the operational phase are an</p>	<p>The forecasts for solid waste in the operational phase are 'Estimated annual forecasts for operational solid waste from the Proposed Scheme', i.e. based on an annual increase in waste associated with the BECCS plant only. The estimated quantity for the Proposed Scheme is based on 50 <u>new</u> employees. 375 FTE employees will be employed at the Drax Power Station site in total as a combination of retained and new jobs, once the BECCS units are operational.</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		annual total for the site or an annual increase in waste associated with the BECCS plant only?	
TTW.1.18	Applicant	ES Chapter 13 Table 13.17 states that the amine solvent waste will be stored on site before being treated for reuse or transported off-site to an appropriate waste treatment facility. Can the Applicant provide information on the proportion of the amine solvent waste that is anticipated to be treated and re-used on-site?	<p>The amine solvent waste that is produced as a result of the Proposed Scheme will be disposed of off site. None of the amine solvent <u>waste</u> will be treated and re-used on site. The amine solvent waste is proportion of the solvent that cannot be treated and re-used on site.</p> <p>Chapter 13 (Materials and Waste) (APP-049) of the ES, Table 13.17 (Forecast Operational Solid Waste Management) states that 2,102 tonnes per annum of amine solvent waste are expected to be generated as a result of the Proposed Scheme.</p> <p>It is expected that on average this will equate to around three HGVs leaving the site per week.</p>
TTW.1.19	NYCC	The worst-case future baseline is that there would be no landfill capacity for inert and non-inert waste by 2028. Can NYCC provide a summary of the status of proposals for additional landfill capacity in the region and whether the Applicant's figure of an 80% decrease in landfill void capacity within the given construction timescale is an appropriate future baseline for the assessment of effects of the Proposed Development?	
Traffic, Transport and Waste Management – Change Request			
TTW.1.20	Applicant	Is there any effect of OHL1 on public access to and use of PRow AIRMF03 given the close proximity to the proposed Order Limits?	<p>As set out Table 6-1 of the Proposed Changes Application Report (AS-045) Public Right of Way (PRow) AIRMF03 runs east-west to the north of OHL1, outside of the Order Limits, and may be affected during the construction phase at the location where the PRow crosses the A645. It is proposed that a short duration, temporary diversion to the PRow may be required at this location to maintain public access. This would have a short duration impact on pedestrian delay, pedestrian amenity and fear and intimidation. However, the short length and short duration of diversions are not predicted to result in a significant effect.</p> <p>Any works for the OHL would be fenced off to ensure the safety of all users of PRow AIRMF03, however, given the proximity of the PRow to the fencing, and the lack of any delineating features to guide the public along the definitive route of the PRow, rights have been included for a temporary diversion of a short section of the PRow, to ensure interference with the fencing is avoided. The Applicant will seek to avoid diverting the footpath if at all possible.</p> <p>The Applicant has updated the Access and Right of Way (ARoW) Plans (AS-074, Rev03 submitted at Deadline)) and Schedule 6 of the dDCO (AS-076, Rev05 submitted at Deadline 2) to allow for temporary diversion of the PRow. The Outline CTMP (REP-011, Rev05 submitted at Deadline 2) has also been updated at paragraph 4.11.4 to reflect these updates.</p>
TTW.1.21	Applicant	It is stated in Table 6-1 of the PCAR [AS-045] that once the quantity and other characteristics of the slurry resulting from the proposed works is known its method of disposal will be chosen. Please can	<p>A worst-case estimate of the volume of solid arisings that could potentially require disposal as appropriate has been calculated based on the following assumptions and using maximum dimensions of industry standards.</p> <p>Assuming a borehole diameter of 355mm and a maximum length of HDD drilling of 10m per section (based on the land required for undergrounding within the proposed changes application), this equates to approximately 1m³ of</p>

ExA Ref.	Addressed to	Question	Applicant's Response
		the Applicant provide a worst-case estimate of the volume of solid arisings that could potentially require disposal and an assessment of any potential significant effects as appropriate.	solid waste per bore (anticipated 3 bore locations). This volume of excavated arisings is not likely to have a significant effect on the remaining landfill and waste management capacity for the region.