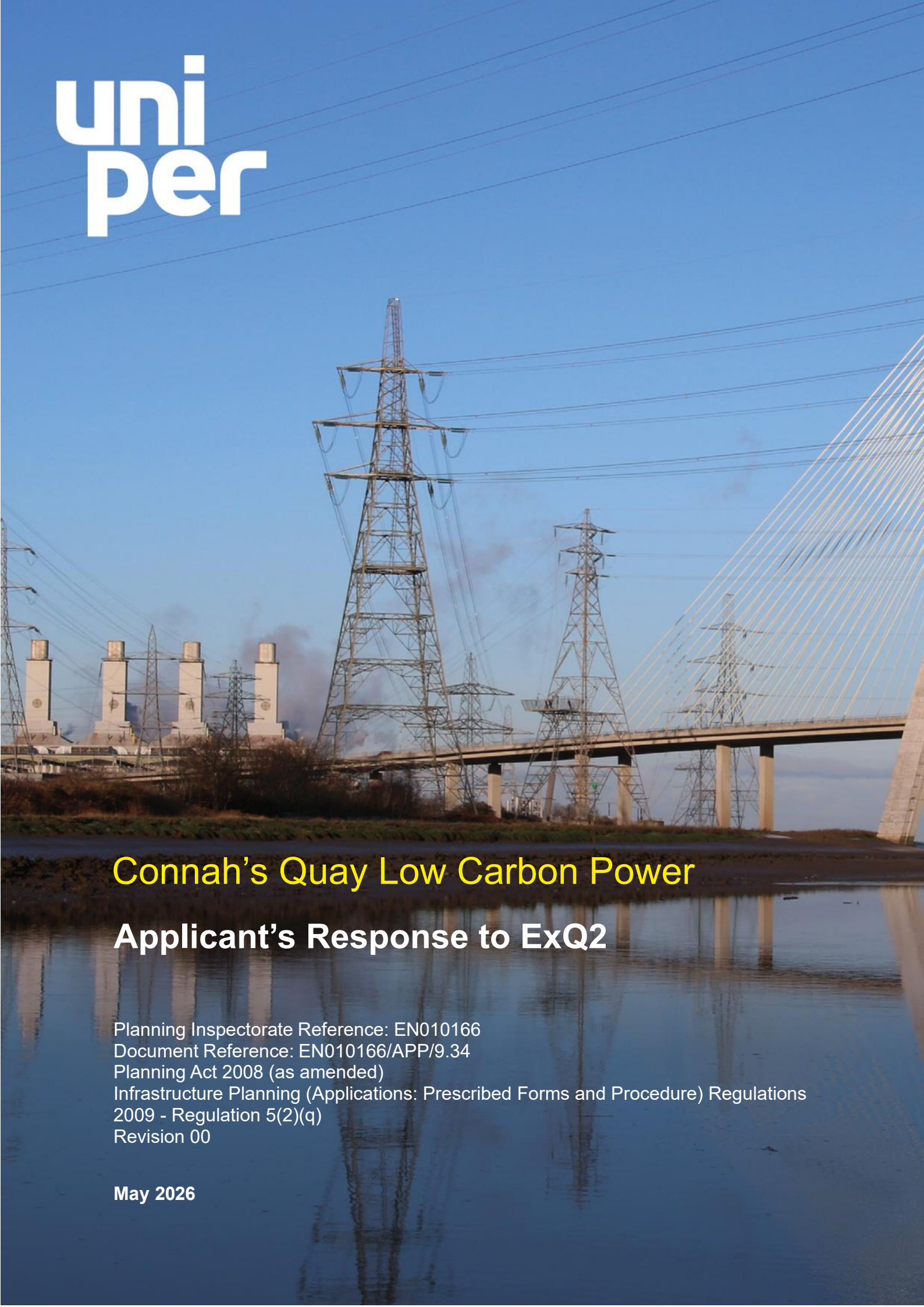

Connah's Quay Low Carbon Power

Applicant's Response to ExQ2

Planning Inspectorate Reference: EN010166
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Prepared for:
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1. Introduction

1.1 Overview

1.1.1 This document has been prepared on behalf of Uniper UK Limited (Applicant). It forms part of the application (Application) that has been submitted for a Development Consent Order (DCO) from the Secretary of State (SoS) for Energy Security and Net Zero under Section 37 of the Planning Act 2008 (2008 Act).

1.1.2 The Applicant is seeking development consent in respect of the Connah's Quay Low Carbon Power (CQLCP) Project (Proposed Development) on land at, and in the vicinity of, the existing Connah's Quay Power Station, Kelsterton Road, Connah's Quay, within Flintshire County Council (FCC), North Wales.

1.1.3 The Application has been accepted for examination. The Examination commenced on 13 January 2026.

1.2 Purpose and Structure of this Document

1.2.1 The purpose of this document is to set out the Applicant's responses to the **Examining Authority's Written Questions (ExQ2) [PD-017]**, which were issued on 5 May 2026. This document contains a table which includes the reference number for each relevant question, the Examining Authority's (ExA) comments and questions and the Applicant's responses to each of those questions.

1.2.2 When responding to ExQ2's, the Applicant has referenced the version of each document that was current at the time the relevant matter was originally addressed, with updated material cited only where necessary, to clarify or expand upon the Applicant's position, so that the evolution of the evidence base through the Examination is transparent to the ExA. However, where mitigation or controls are discussed that would ultimately be secured through the **Draft DCO** (**EN010166/APP/3.1**), the Applicant has referred to the latest version of the relevant securing document, as this is the version to be secured. Accordingly, where issues were addressed in the DCO submission or at Deadline 1-5, references are provided to those assigned in the examination library (e.g. APP-XXX, REP1-XXX and REP2-XXX). Where a matter is being addressed in a document being submitted at Deadline 6, the document reference is provided (e.g. EN010166/APP/X.X).

Table 1: Applicant's Responses to ExQ1 General and Cross-Topic Questions

ExQ2	Question to	Question	Applicant's Response
Q1.1	The Applicant	**Existing power station** In the applicant's reply to ExQ1 1.2 it is noted that as power production from the proposed development comes online, so power production from the existing power station would diminish. What is the governing factor in this balance, is the input capacity of the various mediums to the site, such as fuel or cooling water; the emissions or discharge permits; or the export grid capacity to controlling issue? How will this limitation arise in practice?	One of the advantages of the Proposed Development set out in **Chapter 6: Project Alternatives [APP-044]** is that the Connah's Quay Low Carbon Power (CQLCP) Abated Generation Station, if consented, would make use of existing connections available at the Proposed Development Site. As described in section 4.2.3 of **Chapter 4: The Proposed Development [APP-6.2.4]**, the Proposed Development will utilise a number of connections for inputs (natural gas, towns mains water, cooling water) and connections for outputs (CO2, discharged cooling water, waste water, and the electricity generated). Many of these connections will be made through re-use and repurposing of the existing Connah's Quay Power Station's facilities. For example, cooling water abstraction and discharge facilities (abstraction points, settling and purge ponds, plus the discharge point and associated infrastructure). The existing natural gas supply line from Burton Point is another, along with the grid connection at the existing banking compound. The current connection to the national grid is not sufficient to allow both the existing Connah's Quay Power Station to generate and the CQLCP Abated Generation Station to generate at full capacity simultaneously. This will require that, in order for the first train of the Proposed Development to come into operation, at least two units of the existing Connah's Quay Power Station will need to be disconnected. This is the first major constraint and barrier to simultaneous, full load, operation. The second major constraint is the quantity of cooling water available. The abstraction licence is for a fixed volume (3.04 cubic metres per second, or up to 33 megalitres per high tide) and duration (three hours per tide around high water, one hour before and two hours after). This is sufficient to serve either the existing Connah's Quay Power Station or the CQLCP Abated Generation Station (as its design basis is for the same cooling water flow, and temperature, parameters in order to match the existing permit). Therefore, again, this would preclude the simultaneous operation of both the existing Connah's Quay Power Station to generate and the CQLCP Abated Generation Station at full capacity. As a result, as with the grid connection, units of the existing Connah's Quay Power Station will need to be disconnected from the cooling water supply to provide sufficient volume to the Proposed Development. Where possible, other existing infrastructure from the existing Connah's Quay Power Station will be reused subject to its suitability. This would also hinder the ability of both stations to generate electricity simultaneously.
Q1.2	The Applicant	**Interaction with the HyNet proposed development** Accepting that the design, construction and operation of the HyNet project are outside of the scope of this application, what would be the likely consequence of a failure of the HyNet development to be able to accommodate the CO2 discharge from the CQCLP? Specifically, if the HyNet project were unable to adequately store the CO2. Would the CQCLP continue to transfer CO2 to the HyNet project or would some form of limitation come back upstream preventing the operation of CQLCP?	The Proposed Development, when operating with the carbon capture plant in service, will produce CO_2 on a continuous basis. This then needs to be continuously transferred to the HyNet CO_2 pipeline for onward transport to offshore storage. This is described in section 4.2.22 to 4.2.33 of **Chapter 4: The Proposed Development [CR-019]**. The investment decision for the HyNet CO2 pipeline and offshore storage in Liverpool Bay has been taken and construction work has commenced. Therefore, the risk of the HyNet transport and storage infrastructure not being developed and being able to accommodate the CO2 discharge from the CQCLP is very low. In the unlikely situation where the HyNet infrastructure cannot accommodate the CO_2 being captured there is limited capacity for this to be stored within the pipeline system (analogous to linepack in natural gas pipelines providing some short duration buffer between supply and demand, and supporting a controlled disconnection of users from the system). Therefore, the action taken would be for the generation to be disconnected from the pipeline system at the above ground installation, by the closure of shut off valves. This would be analogous to the process for shutting down, should other supplies be lost such as the natural gas fuel supply, or the electricity export connection. There would then be two options available to the Applicant: as operator, one would be to shut-down the CQLCP Abated Generation Station until such a time as the CO_2 transport and storage apparatus is ready to receive its CO_2 again; or the second option would be to continue to operate the CQLCP Abated Generation Station in an unabated mode and with the carbon capture plant turned off. The most likely course of action would be for the CQLCP Abated Generation Station to shut-down and cease generation. However, it is possible (though it is not incentivised by the Dispatchable Power Agreement, as availability payments would cease, so unlikely) that the CQLCP Abated Generation Station could continue to operate unabated, generating electricity for export to the national grid, but not capturing CO_2. To account for potential T&S unavailability, the CQLCP Abated Generation Station is assumed to run unabated (i.e. without carbon capture) for 5% of the Proposed Development's operation. This is described in **Chapter 20: Climate Change [APP-058]** and is considered a worst-case scenario for Greenhouse Gas (GHG) emissions.

ExQ2	Question to	Question	Applicant's Response
			The Applicant has included the following requirement in the **Draft DCO (EN010166/APP/3.1)**, submitted at Deadline 3, stating that "Work No. 1(a) may not be brought into commercial use without Work Nos. 1(b), 1(c), 1(e), 7 and 8 also being brought into commercial use and Work Nos. 7 and 8 being connected to an operational storage site" (Schedule 2, Part 1, Requirement 21). In practice, this means that the Proposed Development cannot be brought into commercial service without the ability for CO_2 to be sent to storage by being connected to the developed HyNet project. Therefore, any interruption to the ability to store CO_2 would be short term, rather than arising from a lack of connection being made to the store.

Table 2: Applicant's Responses to ExQ2 - Design, Parameters and Other Details of the Proposed Development

ExQ1	Question to	Question	Applicant's Response
Q2.1	N/A	No additional questions on this subject at this Deadline	N/A

Table 3: Applicant's Responses to ExQ2 - Project Alternatives

ExQ1	Question to	Question	Applicant's Response
Q3.1	N/A	No additional questions on this subject at this Deadline	N/A

Table 4: Applicant's Responses to ExQ2 - Planning Policy

ExQ1	Question to	Question	Applicant's Response
Q4.1	The Applicant	**Unabated operation of the proposed development** Further to the Applicant's reply to ExQ1 4.3, and whilst it is noted that the assessment makes use of the reference case and accordingly the worst-case scenario for emissions, can the applicant please advise the ExA of the resulting target emissions and CO_2 capture rates from the Dispatchable Case (high) and Dispatchable Case (low) scenarios also?	The two alternative operational modes are derived from scenarios developed by the National Energy Systems Operator (NESO) in their 2024 Future Energy Scenarios[1]. These operational modes are described in more detail in paragraph 20.6.32 of **Chapter 20: Climate Change [APP-058]**. The Dispatchable Case (High) is based on NESO's Counterfactual scenario in which the UK misses its 2050 net zero target but makes some progress on overall grid decarbonisation. The Dispatchable Case (Low) is based on the NESO 'Electric Engagement' scenario that does meet the UK's net zero target, largely through increased electrification of sectors such as heating and transport. In both Dispatchable Cases, the Proposed Development is assumed to operate with the same 95% carbon capture rate as in the Reference Case, but the overall load factors are reduced from the 100% output for 8760 hours per year assumed for the Reference Case. For the Dispatchable Case (High), representative load factors are 58% in 2035, falling to 49% in 2050. For the Dispatchable Case (Low), the corresponding load factors are 33% in 2035 falling to 22% in 2050. For the Reference Case, load factors are assumed to remain at 100% over the entire operational life of the Proposed Development. Lifetime operational emissions from all sources for the Dispatchable Case (High) are 44% lower than those for the Reference Case; for the Dispatchable Case (Low), the lifetime operational emissions are 70% lower compared to the Reference Case. While the Dispatchable Cases, particularly those derived from NESO's Electric Engagement scenario, are considered to be more realistic than the Reference Case, the Applicant has presented emissions for the Reference Case in **Chapter 20: Climate Change [APP-058]** as this represents a cautious worst case scenario in line with the requirements of the EIA Regulations.

[1] NESO (2024), Future Energy Scenarios: ESO Pathways to Net Zero

Table 5: Applicant's Responses to ExQ2 - Need

ExQ1	Question to	Question	Applicant's Response
Q5.1	The Applicant	**Frequency of operation** What is likely number of operations and frequency for the proposed development to operate to supplement the NGET network, and also potentially restart the network from a total power loss? **System restoration** Further to Applicant's response to ExQ1 5.1 and 5.3, and 6.2.4.11 of the Environmental Statement [CR-020] it is not clear whether the proposed development would be able to contribute to the full network restoration following a national power outage or whether it could restart alone should such an outage take place. It is understood that Applicant may want to reserve commercially sensitive matters surrounding this, if in place, but for an assessment of the wider benefit of the proposed development it is necessary for the ExA to ascertain whether this proposed development can make a wider contribution to the overall network resilience or if it would only be self sufficient.	**Frequency of operation** The proposed operation of the Proposed Development is explained in Section 4.4 of **Chapter 4: The Proposed Development [CR1-020]**. The CQLCP Abated Generating Station would be designed to operate flexibly during its lifetime and within its hours of operation, and therefore numbers of starts and stops of the plant, would be driven by the dynamics of the energy market and weather conditions. The CQLCP Abated Generating Station would be capable of operating in baseload for long periods, that is to say 24 hours per day, seven days per week, should it be required to, but can equally ramp up and down in load or shut down when not required by the national grid. Power stations such as the Proposed Development will play a crucial role in the future energy system, as they can help ensure that energy is available at times when it is needed most, and when power from renewable sources cannot meet demand. When it is not operating, it provides the security required so that, should low carbon electricity be needed, it is available to meet demand and fill the generation gap, for example, during periods of low wind or little sun where low carbon generation from wind and solar is reduced. The response to ExQ2 Q4.1 provides some possible running hours as seen by NESO in their 2024 Future Energy Scenarios (the current version at the time of application). **System restoration** As described by NESO on their website[2], "Providers of the restoration services are expected to achieve high availability levels." The manner in which the facility is called up is also directed by NESO "In the event of a partial or total system shut down, providers of restoration services will be instructed by the Electricity System Operator's control room, with the general guidance of a site specific restoration plan." In terms of the frequency or likelihood of the service being required, "Initiating the procedures is considered to be a low likelihood event. However, we test the delivery of this service at least every three years, as set out in the Grid Code". Power stations such as the Proposed Development can support Electricity System Restoration in two respects. One is a mandatory requirement of the "Grid Code" and the second is an optional arrangement entered into bilaterally between a power station operator and NESO as operator of the national grid. The Proposed Development must adhere to the requirements of the Grid Code which, when summarised, mean power stations must have equipment in place to maintain the plant overall in a condition whereby it can restart, when the grid has been brought back into service. Examples of these systems could include emergency diesel generators to provide power to systems such as pumps, with those systems able to sustain the plant in a condition where it can reconnect to the grid for 72 hours. In the future, the Proposed Development may be able to support Electricity System Restoration through bilateral contracts, but such an arrangement does not form part of the Dispatchable Power Agreement (DPA). The DPA is designed to deliver security of supply by providing flexible, low carbon generation, it is not designed itself to provide for Electricity System Restoration. As noted by NESO in their Electricity System Restoration (ESR) Competitive Procurement Events/Tenders FAQs "provider information for restoration services is confidential"[3].

[2] www.neso.energy/industry-information/balancing-services/system-security-services/restoration-services
[3] www.neso.energy/document/278891/download

Table 6: Applicant's Responses to ExQ2 - Air Quality

ExQ1	Question to	Question	Applicant's Response
Q6.1	The Applicant NRW	**Nitrogen and ammonia deposition** In the applicant's reply to ExQ1 6.9 it is noted that it is proposed to realign the flood defences to allow saltmarsh to be created to compensate for the potential nitrogen and ammonia deposition at the Dee Estuary SAC/SPA/Ramsar site and the Deeside & Buckley Newts SAC. What is the assessment of this benefit of new saltmarsh versus the proposed increased in deposition of nitrogen and ammonia deposits over the wider sites? It is noted that the extent of saltmarsh creation is assessed against the proposed footprint of habitat loss from the construction works for the outfall, but given its provision to offset the nitrogen and ammonia deposition also, where is the measure of this effectiveness? Also this proposal appears to conflict slightly with the later statement in ExQ1 6.18 where it is stated that, firstly the saltmarsh is not being created but allowing natural processes to prevail and reinstate saltmarsh; and that secondly the saltmarsh creation is not behind undertake *[Sic. assume 'being undertaken']* to address air quality impacts. Please can this be clarified and also advise if it's the Applicant's wish for the newly reinstated saltmarsh to be considered to address multiple impacts.	It should be noted that the realignment of flood defences (hereafter referred to as the 'managed retreat') is **not** intended to address air quality impacts on Deeside and Buckley Newt Special Area of Conservation (SAC), which has a separate mitigation solution consisting of payments for conservation management of that SAC to FCC, but **only** air quality impacts from nitrogen deposition on the Atlantic saltmarsh of Dee Estuary SAC/Special Protection Area (SPA)/Ramsar site. Regarding the managed retreat not being specifically undertaken to address air quality impacts, the Applicant means that air quality impacts were not the initial driver for committing to managed retreat. The principle of undertaking the managed retreat of defences south of the existing Connah's Quay Power Station was driven by the need to address the direct loss of saltmarsh due to the proposed new surface water outfall. The size of the retreat area was based on doubling the maximum area of habitat to be temporarily lost to outfall construction (650 m^2 x 2 = 1300 m^2). However, having committed to delivering the retreat area, and taking account of the fact that the permanent loss of Atlantic salt meadow is a maximum of 5 m^2, in the long-term this leaves a 1295 m^2 area of managed retreat secured for the 30 year operational lifetime of the facility that is also available to balance the negative impact of increased nitrogen deposition. This is supplemental enhancement which will be delivered only if the surface water outfall is constructed and, in light of the alternative mitigation now being secured by the Applicant through the **Deed of Development Consent Obligations (EN010166/APP/9.25)** (outlined below), is not relied upon as necessary mitigation to address air quality impacts as part of the appropriate assessment within the **Report to Inform Habitat Regulation Assessment (EN010166/APP/6.12)**. In respect of this enhancement proposed, while the area of Atlantic saltmarsh subject to nitrogen deposition from the Proposed Development is large, it will neither be lost nor cease to be functional or even botanically diverse saltmarsh. At worst, given the Proposed Development would only result in a 1.4% increase in nitrogen deposition rates compared to the baseline situation, there may be a slight shift in botanical species composition away from broadleaved saltmarsh plants and towards saltmarsh grasses, and/or a slight reduction in the frequency of positive indicator species. To express the likely subtle nature of any effect in another way, studies in a range of habitats (reported in the **Report to Inform Habitat Regulation Assessment (EN010166/APP/6.12)**) have identified that a minimum 0.4 kgN/ha/yr of additional nitrogen (twice the maximum dose that is forecast to arise from the Proposed Development) would be required to reduce botanical species richness in most studied habitats by one species. There is no basis to conclude that any positive indicators would be entirely lost from any of the affected areas. In practice, no botanical change may ever be detectable on the ground, due to overriding influences such as management practices, animal grazing, coastal and tidal movements, all of which have an equivalent or greater effect on botanical composition than atmospheric nitrogen deposition. Current nitrogen deposition rates (i.e. nitrogen deposition arising due to all background, local and non-local sources) at the affected parts of the SAC/SPA/Ramsar site are already 63% above the lowest part of the critical load range. Despite this, functional saltmarsh with positive indicator species persists where it is well managed. It is also reasonable to conclude that, given the extent to which the nitrogen deposition rates already exceed the critical load, the most significant changes in botanical composition that might arise due to nitrogen deposition have already occurred due to nitrogen already being present in excess for many years, underlining that the small amount of additional nitrogen from the Proposed Development is likely to only result in small subtle changes. In other words, while the area affected is large the magnitude of the expected botanical effect across that area is small and may never actually be detectable. The Applicant has therefore been precautionary in concluding that an adverse effect on integrity exists that requires mitigation. The Saltmarsh Creation Area, while much smaller than the area affected by nitrogen deposition, would enable an entire area of saltmarsh to persist or expand that would otherwise be lost over time due to sea level rise. In the professional judgment of the Applicant, this increase in the quantity of functional saltmarsh in the SAC/SPA/Ramsar site offsets the small (possibly imperceptible) effect that may arise on the quality of a larger area. While for shorthand the Applicant has called it the

ExQ1	Question to	Question	Applicant's Response
			'Saltmarsh Creation Area' (as there is no saltmarsh currently present) in practice the managed realignment will enable an existing area of saltmarsh to continue to persist in the face of sea level rise by setting back the existing defences that would otherwise constrain any such retreat and result in coastal squeeze and a net reduction in the area of saltmarsh in this frontage. As a result of the managed retreat there will be no net loss in the area of saltmarsh in this frontage. Notwithstanding the above explanation, the Applicant has agreed with Natural Resources Wales to provide alternative mitigation specifically to address air quality impacts on saltmarsh. This constitutes financial assistance to FCC for direct management of saltmarsh within their land holding in the Dee Estuary. This is calculated based on the additional management burden that may be introduced by the additional nitrogen from the facility in order to manage any further growth of more competitive plant species and is to be used to improve saltmarsh condition and generally increase its resilience to impacts such as nitrogen deposition. The Applicant has undertaken a review of available information on the costs associated with the annual management of saltmarsh to determine a suitable contribution linked to the impacts of nitrogen deposition from the operation of the Connah's Quay Low Carbon Power Project on saltmarsh within the Dee Estuary. The calculation approach mirrors the approach taken to nitrogen deposition from the Proposed Development at Deeside and Buckley Newt SAC (Wepre Park), and is based on the principle that a specific amount of further nitrogen deposition from the Proposed Development over a given area broadly correlates to a similar likely increase in management burden over that area to counteract the impact of additional nitrogen and maintain good quality saltmarsh. Note that in the event that the Proposed Surface Water Outfall (which is the trigger for the managed retreat area) is not required, the managed realignment would not be provided. This is because it is not needed to address air quality impacts as the managed retreat now has only a supplementary enhancement role in addressing air quality rather than a primary mitigation role.

Table 7: Applicant's Responses to ExQ2 - Noise and Vibration

ExQ1	Question to	Question	Applicant's Response

Q7.1	The Applicant
	FCC
		Mitigation of traffic noise on local residents ([REP4-046] Ref:6.6.3.3.7)
		The Framework Construction Traffic Management Plan (FCTMP) alludes to monitoring of noise at selected locations and potential mitigations measures should this prove an issue during the construction period. Noting these locations will be in agreement with FCC, where are the potential locations for noise monitoring in relation to the local community? What will be the trigger for further mitigation should noise levels prove excessive?
			As detailed within the **Framework Construction Traffic Management Plan (CTMP) (EN010166/APP/6.5)**, any monitoring requirement would be agreed with FCC on completion of the updated road traffic noise assessment for the relevant stage of the Proposed Development as part of the final CTMP(s) as secured by Requirement 5 of the **Draft DCO (EN010166/APP/3.1)**. The proposed locations for monitoring construction traffic noise would likely be at locations close to R21, R22 and R23 (as shown on **Figure 9.1: Noise Sensitive Receptors and Sound Monitoring Locations [APP-120]**) which are residential properties on Kelsterton Road. The final locations would be subject to agreement with local residents as noise monitoring equipment would be required to be left in their gardens.
			
			Provision of additional glazing and/or sound insulation would be offered to properties where updated road traffic noise assessments identify, as a result of the Proposed Development:
			• a predicted change in road traffic noise levels compared to baseline levels of greater than 5 dB;
			• total predicted free-field noise level that is above 63 dB LAeq,16hr; and
			• sound levels greater than 5 dB above the existing ambient sound levels, that would likely occur for a duration exceeding:
			  ○ 10 or more days in any 15 consecutive days; or
			  ○ a total number of days exceeding 40 in any six consecutive months.

Q7.2	The Applicant	**Baseline background levels of noise for residential receptors** Given the acknowledgement that noise levels for local residents are already high from the existing industrial sites and road adjacent to the local community, where has the applicant demonstrated "good" design in their proposal to help mitigate for this already high level of noise, on to top of the mitigation proposed to address the noise from their proposed development?	been noted, the ambient sound levels are already influenced by contributions from nearby roads and existing industrial premises. This context is a key factor in assessment of the rating level for the Proposed Development and the likely extent of sound mitigation. The ambient sound levels (L_{Aeq}) at Noise Sensitive Receptors (NSRs) during the day and night are mainly attributable to traffic on the nearby local and regional roads and the existing night-time ambient sound level is 52 dB $L_{Aeq.}$ In contrast, when the existing Connah's Quay Power Station is generating electricity, historic measurement and modelling assessments show the specific sound level due to two-unit operation is typically in the range 41-45dB $L_{Aeq,}$ which is +4 to +8dB above the representative night-time background sound level (L_{A90}). As assessed in the Environmental Statement, the rating level for the Proposed Development would be 45dB L_{Ar}, which is comparable in magnitude to levels that have arisen from operation of the existing Connah's Quay power station. Since the operation of the Proposed Development would replace part or all of the existing power plant operation as a source of industrial sound, it is not anticipated that community levels would be overly modified compared to equivalent operation of the existing Connah's Quay Power Station. To achieve the proposed rating levels at residential locations, some potential levels of attenuation to specific items of plant were suggested within Table 9-22 of ES Volume II **Chapter 9: Noise and Vibration [APP-047]**. These are presented as theoretical reductions in source noise emissions, that could be notionally required to meet the proposed rating level at the most sensitive noise receptor. However, as mentioned in the adjoining text in **Chapter 9: Noise and Vibration [CR1-028]**, it may be desirable or more practical to focus attenuation on different plant items and take appropriate measures to control operational sound. Such measures would be identified during the detailed design stage of the Proposed Development. Regardless of the noise measures related to specific plant at the detailed design stage, it is important to note that the **Design Principles Document [REP4-060]**, secured through Requirements 3 (detailed design) and 12 (control of noise – operation), requires compliance with the +8dB criterion (rating level of 45dB L_{Ar} relative to 37 dB L_{A90} night time background) as stated in the Environmental Statement, thus ensuring that sound emission control is embedded into the detailed design of the plant through the appropriate selection, integration, and layout of equipment. Furthermore, the plant specification includes requirements for particular attention to be given to controlling tonal and low frequency noise emissions to minimise the potential that that the operational sound has a distinctive character at NSRs. As part of the detailed design phase, focus will primarily be

ExQ1	Question to	Question	Applicant's Response
			on 'good' noise control at source, however optimised orientation, layout and screening will also be considered as part of overall 'good design' to provide additional levels of attenuation during propagation and contribute to achieving the specific sound levels at NSRs.
Q7.3	The Applicant FCC	**Potential for vibrations at neighbouring properties** Further to ExQ1 7.4 the applicant does not appear to have addressed the specific risk that could arise from vibration to neighbouring properties from any percussive piling during the construction works. It is noted in the Framework Construction Environment Management Plan (FCEMP) Table 3: Noise and Vibration that "use of rotary bored rather than driven piling techniques (if required), where possible" could be implemented if issues arise, but how would this be assessed, monitored and the perceptions of local residents be addressed during construction.	As stated in **Appendix 9-C: Construction Noise Effects and Assumptions [CR1-091]**, during the Main Civils Works there are up to four pre-cast concrete piling hydraulic hammer rigs operating continuously over a 12 hour day as a worst case assessment. However, the nearest residential properties are at least 150 m from the proposed piling areas, therefore outside the vibration assessment study area. This is supported by BS 5228-2:2009+A1:2014 'Code of Practice for Noise and Vibration Control on Construction and Open Sites - Vibration'[4] which identifies at distances exceeding 150 m from the proposed piling areas the vibration levels are likely to be well below damage thresholds. Therefore, the vibration levels may be just perceptible, depending on ground conditions, piling methods etc, but generally considered acceptable and unlikely to cause complaints. In order to be a good neighbour, rotary bored piling techniques will be used where possible. However if driven (impact) piling is required, no driven piling shall commence until a piling method statement (detailing the type of piling to be undertaken and the methodology by which such piling will be carried out, including measures to minimise any predicted adverse effects) has been submitted and approved by FCC. Any piling must be undertaken in accordance with the terms of the approved piling method statement. This requirement has been added to the Framework CEMP (EN010166/APP/6.5) at Deadline 6. Communication with the local community is important to notify local residents in advance of any piling works or activities with the potential to generate vibration which is perceptible to their properties and to explain that whilst vibration may be perceptible, the levels will be considerably below the thresholds that could cause damage to buildings. The **Framework CEMP (EN010166/APP/6.5)** identifies that a Community Liaison Group would be set up prior to construction and would continue until final commissioning of the Proposed Development as a formal forum for local issues to be raised. A Community Liaison Officer would be appointed to lead discussions with local communities, and also act as the primary point of contact should there be any queries or complaints. Table 3 of the **Framework CEMP (EN010166/APP/6.5)** notes regular communication with the local community throughout the construction period would serve to publicise the works schedule, giving notification to NSRs regarding periods when higher levels of noise may occur during specific operations, and providing lines of communication where complaints can be addressed. As also detailed in Table 3 of the **Framework CEMP (EN010166/APP/6.5)**, the Applicant can offer pre-condition surveys to the residential properties closest to noise / vibration generating activities, following the findings of the further noise and vibration assessment.

[4] British Standards Institute (BSI) (2014). BS 5228-2:2009+A1:2014 – Code of practice for noise and vibration control on construction and open sites. Part 2: Vibration

Table 8: Applicant's Responses to ExQ 2 - Traffic and Transport

ExQ1	Question to	Question	Applicant's Response
Q8.1	The Applicant FCC Highway Authority	**Increase in traffic movements ([APP-048] Table 10-28)** Noting the medium magnitude of impacts at Kelsterton Road during the construction works, the FTCMP refers to monitoring this impact and further mitigation measures if required. Please elaborate on this monitoring regime, the triggers for further mitigation and what these mitigation measures may involve.	Based on a worst-case assessment of peak construction traffic, there are forecast to be a total of 240 two-way HGV movements across a 10-hour working day (08:00-18:00). Kelsterton Road currently provides access to the existing Connah's Quay Power Station and is the most appropriate form of access during construction, operation and decommissioning of the Proposed Development. Therefore, there would be an unavoidable impact on this route, in its function as serving the Main Development Area. Notwithstanding this, the specified hours of work are secured within the **Framework CTMP (EN010166/APP/6.6)**, serving to reduce the level of impact experienced during locally sensitive peak hours. The arrival and departure of HGVs is proposed to be monitored to determine if this forecast daily level of construction traffic along Kelsterton Road is being exceeded. Further, more detailed monitoring /mitigation is likely to include the use of a vehicle booking system, or similar, which would serve to manage heavy vehicle deliveries throughout the day, through scheduling of specific time slots for arrivals and ensuring the total vehicles per day is not excessively exceeded. If the monitoring of these movements reveals a likelihood for the forecast hourly arrivals / departures to be regularly exceeded, construction vehicles can be placed on hold within site holding areas in order to regulate vehicle flow, ensuring impacts along Kelsterton Road are limited, prior to HGVs accessing the wider Strategic Road Network on the A548.

Table 9: Applicant's Responses to ExQ2 - Terrestrial and Aquatic Ecology

ExQ1	Question to	Question	Applicant's Response
Q9.1	The Applicant	**Gronant fields site ([REP5-032] Ref: 6.13.4)** Noting the existing survey records for the bird species at the Gronant fields site, what impact is the intention to dedicate the site to relocation of species from the Connah's Quay site likely to have on the existing species use, and how will the planned works to develop the Gronant files site and make it more attractive to the displaced species impact these existing species. Please update with the continued appropriate evidence of the existing use of the Gronant field sites by other species, in particular scheduled species and what are the likely impacts on these existing species of the planned relocation of additional species to the site. Please verify if the Gronant fields site is already behaving as functionally linked land or not. If works are required to the Gronant fields site to make it suitable for the use of Curlew as proposed in the Curlew Management Strategy, will this work require separate permissions, how will these be secured and what are the risks that they may not proceed if the proposed development application is successful but the proposed works to the Gronant fields site cannot be achieved?	As set out in the Applicant's response to Q9.3 of **Applicant's Response to ExQ [REP3-059]**, the Applicant will not be directly relocating individual Curlew to Gronant Fields from the Order limits, rather the objective of the works at Gronant Fields is to ensure that there is no net loss in foraging and roosting habitat for the Dee Estuary SPA Curlew population. Currently, the Gronant Fields site does not support any waterbird species (Curlew or otherwise) associated with the Dee Estuary SPA. Whilst the measures set out in the **Outline Curlew Implementation and Monitoring Plan (EN010166/APP/6.13)** are targeted towards maximising the value of the Gronant Fields site for Curlew, the creation of appropriate conditions for this species, i.e., through grazing and water level management, will also create conditions suitable for other wetland birds, including other qualifying waterbird species of the SPA. The **Outline Curlew Implementation and Monitoring Plan (EN010166/APP/6.13)** has been updated to summarise further details of baseline information provided by NRW (for the period between October 2015 and October 2017 and between March 2022 and March 2026) as well as information on the Applicant's most recent surveys, which continue to show Gronant Fields site does not support any waterbird species (Curlew or otherwise) associated with the Dee Estuary SPA. In terms of wider biodiversity, the Applicant is undertaking a range of ecological surveys to determine the presence of any other species of conservation value. However, given the Applicant is only proposing to bring the Gronant Fields site back into active management through grazing and enhance existing habitat features (rather than wholesale habitat change), there is not anticipated to be any conflict with wider biodiversity present on site. The Gronant Fields site does not currently support Curlew, so is not functioning as suitable habitat for the species and so is not already behaving as functionally linked land. Paragraph 8.2.1 of the **Outline Curlew Implementation and Monitoring Plan (EN010166/APP/6.13)** states: " Noting that the land at Gronant Fields is outside of the Order limits, the Applicant would seek the necessary permissions and consents for Phase 1 prior to any of Work No. 1 commencing. These permissions and consents would be based on the details to be developed and presented in the Curlew Implementation and Monitoring Plan in accordance with Requirement 11 and Schedule 16 of the **Draft DCO (EN010166/APP/3.1)**. Appendix C identifies the necessary permissions and consents required to implement the Plan." Appendix C identifies that the only consent required ahead of phase 1 taking place would be to secure a SSSI assent/consent under the Wildlife and Countryside Act 1981, for which an application is currently being progressed. The Curlew Implementation and Monitoring Plan must be approved before any stage of Work No. 1 or any site clearance works required in connection with Work No. 1 may commence and then, once approved, it must be implemented as approved and maintained for the lifetime of the authorised development (pursuant to Schedule 16 of the Draft DCO). Whether or not any such permissions or consents will be needed for phase 2 works will depend on the nature of any works that are considered to be required following discussions with the Curlew Steering Group. As identified in the **Consents and Agreements Position Statement (EN010166/APP/3.3)**, to the extent necessary, any such permissions or consents would be obtained in accordance with the timescales approved pursuant to the approved Curlew Implementation and Monitoring Plan. The Applicant has also included an Appendix to the **Outline Curlew Implementation and Monitoring Plan (EN010166/APP/6.13)** to consider the impacts of implementing the outline plan. This concludes that there will be no new or materially different likely significant effects from those presented in the **Environmental Statement (EN010166/APP/6.1-6.4)** or changes to the conclusions of the **RIHRA (EN010166/APP/6.12)** as a result of such works.

Table 10: Applicant's Responses to ExQ2 - Marine Ecology

ExQ1	Question to	Question	Applicant's Response
Q10.1	The Applicant NRW	**Proposed surface water outfall construction ([REP4-021] Ref: 6.2.12.1.10)** It is noted that the installation of the new outfall will be executed using either trenchless methods or open excavation techniques, extending from the current headwall. Please can this construction technique be clarified as it is likely that open excavation will have different impacts on the habitat to that of trenchless methods, and consequently will require differing considerations.	As outlined in paragraph 12.2.10 of **Chapter 12: Marine Ecology [REP4-021]** consideration has been given within the assessment to the impacts associated with both open-cut and trenchless construction methods and therefore the conclusions reached represent a worst case assessment of either option. At this stage it is considered that the preferred method is open-cut excavation due to a limitation on working areas on the land side and potential for greater impacts within the Dee Estuary SAC associated with the required exit pit. However, it will not be possible to make a firm decision on the approach until the detailed design is more progressed post-consent. As the assessment applies the Rochdale Envelope principle in assessing the worst case of both options, it has considered the implications of a worst-case scenario. It is important to note that as identified in Section 2.15 of the **Framework CEMP (EN010166/APP/6.5)**, any works would take place at low-tide only and no in-river works would take place. Any necessary excavations will be confined to the upper edge of the saltmarsh, ensuring they remain outside the boundaries of the existing mudflat habitat.

Table 11: Applicant's Responses to ExQ2 - Water Environment and Flood Risk

ExQ1	Question to	Question	Applicant's Response
Q11.1	The Applicant NRW	**Surface water collection, discharge and protection of the environment ([CR1-022] Ref: 6.2.5.3.40 & [REP4-038] Ref: 5.3 OSWDS)** In the applicant's reply to ExQ1 11.3 it is advised that "There are no open watercourses located on the Main Development Area. The nearest downstream watercourses are located beyond the north-east boundary, within the adjacent Dee Estuary / Aber Dyfrdwy SAC, which is within an area of saltmarsh". Old Rockcliffe brook appears to cross the main development area and Oakenholt brook appears to in close proximity also to the north of the main development area. It is understood that these brooks may not be open channel watercourses and possibly culverted through the site, but the given the area is already disturbed by these features would it not be possible to divert surface water collection from the proposed development and connect or discharge to these watercourses rather than constructing a new headwall within the estuary. What is the capacity of these brooks to receive additional flows, and if culverted what would be the impact of increasing the culvert sizes as opposed to constructing the proposed outfall within the estuary?	**Appendix 13-D: Outline Surface Water Drainage Strategy [REP4-038]** was revised at Deadline 4 to explain how each of the surface water runoff destination options has been considered, including open watercourses, the Oakenholt Brook Culvert, the Old Rockcliffe Brook Culvert and the existing Connah's Quay Power Station Surface Water Outfall (known as W2). Runoff may be able to be discharged to existing piped surface water drainage systems, which would avoid the introduction of a new headwall and therefore avoid the direct loss of / damage to qualifying habitat features of the Dee Estuary / Aber Dyfrdwy SAC/ area of saltmarsh. However, none of the existing piped surface water systems are likely to be able to accommodate runoff from the entire Main Development Area. Consideration therefore needs to be given to splitting the surface water discharges across the existing surface water systems located within the Main Development Area (the Oakenholt Brook Culvert, the Old Rockcliffe Brook Culvert and the W2 outfall). The capacities of these pipes are limited, meaning that they would likely be unable to accommodate unrestricted flows without increasing flood risk. To mitigate potential flooding issues, flows from the Main Development Area would likely need to be restricted and additional surface water attenuation would likely be required to discharge at restricted rates. As the existing culvert outfalls are located within the Dee Estuary SAC and areas of saltmarsh, the culvert sizes can only be increased along small upstream lengths (within the Main Development Area). If the culvert outfall sizes were increased, this would require reconstruction works within the Dee Estuary SAC and areas of saltmarsh with temporary and permanent habitat loss likely to be similar to that associated with the Proposed Surface Water Outfall. For any small lengths of culvert upsizing, the (fixed) outfalls would act as restrictions. Increasing the culvert sizes will therefore not significantly increase their capacities. Furthermore, the Old Rockcliffe Brook Culvert is relatively deep, with a submerged outfall into the saltmarsh. The W2 surface water network has potential capacity and space for connection. However, upsizing works to either the culvert or network pipe would cause unnecessary disruption to the operation of the drainage arrangement for the existing Connah's Quay power station whilst having negligible benefit in terms of capacity increase. Whilst distributing surface water runoff across multiple assets may help to reduce the additional attenuation volume required, the additional attenuation volume required would likely still be significant and may not be achievable for the Proposed Development. As identified in **Appendix 13-D: Outline Surface Water Drainage Strategy [REP4-038]**, detailed modelling will be undertaken at the detailed design stage post-consent to assess the viability of splitting the surface water discharge across the existing piped surface water systems. If it is deemed viable, it will be the preferred drainage solution because it will avoid the loss of qualifying habitat features of the Dee Estuary SAC.
Q11.2	The Applicant NRW	**Flood risk [CR1-032]** What is the risk of multi-variate coastal overtopping from the combined action of high tides, surge, waves including wind waves, swell waves and long period waves at the site; and does this present a different flood risk scenario to the extreme water level assessment presented? Given the exposed coastal nature of the proposed development, what is the risk of overtopping and breach of the flood defences and does this exacerbate the flood risk scenario? It is noted in the applicant's reply to ExQ1 that a range of climate change scenarios has been considered but with regards to the assessing credible maximum scenarios for nationally significant infrastructure projects as set out in government guidance, can the applicant confirm that the full range	The wind, wave and water level conditions from a multi-variate analysis could be used to estimate the overtopping rates for selected Annual Exceedance Probabilities (AEPs). The wave conditions would need to be transformed from the estuary mouth to the Main Development Area whilst being forced by the wind. This type of analysis could be beneficial if the site were in an exposed position where the joint probability of the different forcing functions is important. The DEFRA guidance "Joint Probability: Dependence Mapping and Best Practice" R&D Technical Report FD2308/TR1 identifies that the dependence between high water levels and wave heights is modest, just above independent, even for the direction sectors with the highest correlation. The Main Development Area is not exposed directly to the estuary mouth and the fetch across the estuary is limited. The alignment of the Main Development Area to the sub-tidal channel means that waves approaching from the estuary mouth would run along the edge of the Proposed Development rather than directly on to the edge protection. This low angle of approach would significantly reduce the run-up and overtopping risk. For waves approaching from the north to northeast across the estuary, the fetch length and depth of water would be limiting factors. Therefore, it is considered that the risk of wave overtopping causing flooding is low and a multi-variate approach is not required at this stage.

ExQ1	Question to	Question	Applicant's Response
		of scenarios has been considered, specifically including the H++ sea level rise assessment for critical national infrastructure.	The principal flood mitigation is the elevation of the raised platform. This is 0.6 m above the design water level of 6.8 mOD to provide a platform level of 7.4 mOD. Assuming that the edge protection is a sloped revetment or vertical wall with no upstand wall, then water is not held back by a defence and, therefore, there is no defence to be breached. This qualitative assessment of the risk of wave overtopping increasing the flood risk at the Main Development Area supports the guidance from the NRW that wave overtopping is not a significant risk at the Main Development Area during the Proposed Development's operational lifetime compared to the risk of flooding from still water levels. With regard to the consideration of the credible maximum scenarios (H++), the Applicant has prepared Annex A to **Appendix 13-C: Flood Consequences Assessment (EN010166/APP/6.4)**, which summarises the findings of the additional sensitivity analysis. Results from the 0.5% AEP H++ 2074 scenario show that when the Operational Footprint and buildings are raised, these areas are inundated with floodwater during this event (depths of approximately 0.40m). However, flood depths at the buildings where critical infrastructure is proposed, remain below 0.10m. When land raising to 7.40m AOD across the Operational Footprint and further elevated Finished Floor Levels are taken into consideration, the Proposed Development's critical infrastructure is considered to be sufficiently resilient to the 0.5% AEP H++ 2074 scenario and the safety of staff would be managed through a Flood Emergency Response Plan applicable to the relevant stage of the Proposed Development.
Q11.3	The Applicant	**Foul water services ([CR1-020] Ref: 6.2.4.2.50 & [CR1-32] 6.2.13..3.10)** Why is the part of the existing foul water treatment at the site "sub-optimal" and being collected and taken away for disposal and can the applicant advise how this will not be the same situation for the proposed development?	At the time of application, and until recently, the existing foul water treatment was operating in a sub-optimal way and would have required substantial repair and upgrade to return it to its "as new" design performance. Given the age of the existing Connah's Quay Power Station it was considered more cost efficient to provide for final treatment of effluent via tankering off-site, largely due to availability of spare parts. This is as noted in the response to Q11.5 in **Applicant's Response to ExQ1 [REP3-059**]. This was an infrequent operation and did not contribute significantly to traffic movements around the existing Connah's Quay Power Station site. However, a new state of the art system has now been installed and tankering off site of day-to-day foul water has now ceased. Nevertheless, this issue it not relevant to the Proposed Development, as described in **Chapter 4: The Proposed Development [CR1-020]**, because the Proposed Development will be served by a purpose designed and built black and grey wastewater treatment scheme including foul drainage from permanent welfare facilities, with treated wastewater to be discharged to the River Dee with the main cooling water purge discharge as per the design intent of the existing system. Removal by a specialist contractor would also be possible (for example during a process upset, maintenance, in the event of a plant malfunction or where a new contaminant stream is generated that is not authorised under the existing Connah's Quay Power Station Environmental Permit) but is not the intent of the foul water treatment scheme. As stated in **Applicant's Response to ExQ1 [REP3-059]**, Water Quality Risk Assessment for discharges to the River Dee would be undertaken if this option is taken forward, once details of effluent quality are available. This is secured through **Appendix 4-A: Operation and Maintenance Mitigation Register (EN010166/APP/6.4)**.

Table 12: Applicant's Responses to ExQ2 - Geology and Ground Conditions

ExQ1	Question to	Question	Applicant's Response
Q12.1	The Applicant	**Possibility of the presence of unexploded ordnance** Given that pre-desk study assessment of risk has recommended a detailed desk study be commissioned, why has this been deferred until construction, and what is the risk that this further study highlights additional risks to any of pre-commencement enabling works?	The Applicant has updated the relevant wording in the **Framework CEMP (EN010166/APP/6.5)** to note that this study would be undertaken prior to the start of any site enabling works. This detailed desk study will inform the final measures to be implemented by the Principal Contractor(s). The purpose of the detailed desk study will be to finalise the required mitigation measures during any intrusive works. Based on results of similar studies undertaken for ground investigations across the Main Development Area and the Construction and Indicative Enhancement Area (C&IEA), the Applicant does not foresee any issues that could not be adequately managed through standard mitigation measures.
Q12.2	The Applicant	**Contaminated ground** What are the risks of encountering and opening up to the environment hazardous material from the decommissioning of the earlier power station whilst undertaking excavations in the C&IEA, and how would these risks be mitigated?	As identified in **Chapter 5: Construction Management and Programme [CR1-022]**, the C&IEA is only proposed for use as a construction laydown area which limits the requirement for ground disturbing activities. Nevertheless, Tables 2 3, 4 and 5 of **Appendix 14-C: Potential Areas of Contamination and Further Risk and Impact Assessment [APP-218]** provide further details of the baseline contamination risks within the C&IEA associated with the former Connah's Quay Power Station. As set out in Table 8 of the **Framework CEMP (EN010166/APP/6.5)**, the risk of encountering contaminated soils and groundwater will be managed in accordance with government guidance titled 'Land Contamination: Risk Management'. This provides for a phased and risk-based approach whereby any unacceptable risks, as determined by either generic or detailed risk assessment, will require mitigation in the form of remediation during construction. As identified in Section 2.9 of the **Framework CEMP (EN010166/APP/6.5)**, the final CEMP(s) will also be required to outline measures to manage the potential to encounter unforeseen soil or groundwater contamination. Specific reference is also made within **Chapter 14: Geology and Ground Conditions [CR1-034]** at paragraph 14.5.3 where the following is noted: "*in the event that unacceptable risks are identified, or encountered during construction, and routing through these areas is unavoidable, specific mitigation measures may be required in the form of treating / remediating contamination (e.g., contamination that may be associated with potentially contaminative sites identified as part of the assessment, notably the areas of historical landfilling activities, Made Ground and the former coal-fired power station)*".

Table 13: Applicant's Responses to ExQ2 - Landscape and Visual Amenity

ExQ1	Question to	Question	Applicant's Response
Q13.1	N/A	No additional questions on this subject at this Deadline	N/A

Table 14: Applicant's Responses to ExQ2 - Physical Process

ExQ1	Question to	Question	Applicant's Response
Q14.1	The Applicant NRW	**Shoreline management** It is noted that the proposal to realign the defences to south of the proposed development within the C&IEA is contrary to the preferred policy within the shoreline management plan. What implication does this have for other stakeholders and signatories to the shoreline management plan, what is the risk that the rate of inundation of the set back site will accelerate as is common where managed realignment activity takes place and what does this mean for rates of coastal erosion adjacent to the site of the proposed managed realignment?	In the **Applicant's Response to Deadline 3 Submissions [REP4-081]**, the Applicant noted "*The development of a Habitat Creation Site (HCS) along the southern boundary of the site will involve the modification of the current coastal defence embankment. However, the defence structure in question is a sediment bank that is set back from the saltmarsh edge by between 94 to 110 metres, has an aspect facing away from the prevailing and storm event wave direction, storm surge direction and as such is unlikely to be acted upon directly by dynamic waves. The majority of the current saltmarsh sits at elevations close to highest astronomical tide or higher and as such the majority of the tidal and wave energy is prevented from transmitting past the saltmarsh edge… The SMP policy covering this site is "Hold the Line" and does allow for localised realignment of the coastal defence structure provided that consideration of any potential impacts of the realignment to the estuary and flood risk to railway and infrastructure are assessed.*" As identified in NRW's **Deadline 5 Submission [REP5-069]**, they agree that the Shoreline Management Plan allows for managed realignment within the Hold the Line policy. The implications of the Saltmarsh Creation Area to invested stakeholders or signatories to the shoreline management plan are that in the proposed location there is unlikely to be a negative impact to the adjacent saltmarsh. On the contrary the Saltmarsh Creation Area is expected to positively affect the local environment through its integration with the existing saltmarsh and creek system. The risk that the rate of inundation into the Saltmarsh Creation Area would accelerate is highly unlikely to occur due to the control of flow into the area and the distance of the site from the saltmarsh edge and mouth of the creeks system that would supply tidal water. There is limited risk of accelerated coastal erosion adjacent to the Saltmarsh Creation Area as it will be designed and constructed to coexist sympathetically with the adjacent existing saltmarsh. As identified in the **Applicant's Response to Deadline 3 Submissions [REP4-081]** and the **Applicant's Response to Deadline 4 Submissions [REP5-062]**, the Applicant is also exploring options which would avoid the realignment of the existing defences but would introduce a controllable inlet (culvert) into the Saltmarsh Creation Area which could be closed in certain events to hold the existing defence alignment.

Table 15: Applicant's Responses to ExQ2 - Terrestrial Heritage

ExQ1	Question to	Question	Applicant's Response
Q15.1	N/A	No additional questions on this subject at this Deadline	N/A

Table 16: Applicant's Responses to ExQ2 - Marine Heritage

ExQ1	Question to	Question	Applicant's Response
Q15.1	N/A	No additional questions on this subject at this Deadline	N/A

Table 17: Applicant's Responses to ExQ2 - Socio-Economics, Recreation and Tourism

ExQ1	Question to	Question	Applicant's Response
Q17.1	The Applicant FCC	**Additional support to the local community** What can the applicant do to further support the local community with regards to the issues raised at OFH1 including any support to energy needs for the local swimming pools and the improvements to the works at the boundary of their site to reduce risk to students walking to college.	An overview of the scope of potential community benefits has been provided within the **Community and Local Benefits Statement [REP4-087]** submitted at Deadline 4. This could include enhancements to public rights of way and footpaths; and nature enhancement and improved access to the natural environment. The community benefit fund would not extend to offering discounts on local energy bills, although support for energy efficiency and / or energy cost reduction measures may be considered. These initiatives would be progressed should the Proposed Development be granted consent and progress to the construction phase. It would be premature to prepare a more detailed schedule of actions at this stage because the Applicant would want to ensure that its actions to provide a community benefit and funding provided through the Community Benefit Fund are proceeded with in the context of the detailed design of the Proposed Development and following further community engagement to determine the most effective benefits that can be provided locally. The Applicant would also seek to engage with the community and wider stakeholders to shape collaboratively the Community Fund Agreement where the operation and goals of the scheme will be captured. It is typical for infrastructure projects to commence this process following award of consent and commencement of construction.

Table 18: Applicant's Responses to ExQ2 - Climate Change

ExQ1	Question to	Question	Applicant's Response
Q18.1	The Applicant	Upstream emissions ([REP5-072]) Considering CESL's Deadline 5 submission, please explain, with reference to the Environmental Statement and the EIA Regulations, how the Applicant is satisfied that the approach taken to the identification and assessment of upstream (well-to-tank) greenhouse gas emissions, including methane, is sufficient to enable the Examining Authority and the Secretary of State to understand and assess the significance of the Proposed Development's effects on climate change.	The Applicant has carried out an assessment of the GHG impact of the construction, operation and decommissioning phases of the Proposed Development; this is presented in **Chapter 20: Climate Change [APP-058]** of the ES with further detail provided in **Appendix 20-A Greenhouse Gas Baseline Data and Methodology [APP-236]**. Section 20.3.1 of **Chapter 20: Climate Change [APP-058]** covers the scope of the GHG assessment, and well to tank emissions from the upstream fuel supply chain is explicitly listed as an emissions source. Paragraph 20.6.59 of **Chapter 20: Climate Change [APP-058]** acknowledges that a majority of emissions from the operation of the Proposed Development will result from the upstream natural gas supply chain. The emissions factor for the upstream carbon intensity of natural gas was taken from the most recent set of conversion factors[5] published annually by the UK Government. The Applicant considers this to be an appropriate data source, and this view is explicitly endorsed in guidance[6] published by the Institute of Sustainability and Environmental Professionals (ISEP) under which the GHG assessment was carried out. The suitability of the upstream emissions factor was discussed in more depth in the **Applicant's Response to Deadline 1 Submissions [REP2-019]**. The Applicant recognises that there are a number of factors that can influence the upstream carbon intensity of natural gas; these include the proportion of liquefied natural gas in the fuel supply and the time horizon over which the global warming potential of methane is reported. Given the inherent uncertainty around the future contribution of Liquefied Natural Gas (LNG) within the UK gas mix, the Applicant considers that it is neither necessary nor appropriate to speculate on this, and that the most recent UK Government upstream emission factor remains valid for the purposes of the GHG assessment and is consistent with the requirements of the EIA Regulations. In relation to the global warming period for methane (CH_4), the Applicant fully acknowledges that applying a 20-year reporting metric will result in higher apparent emissions relative to the use of the standard 100-year time horizon. It is important to note, however, that the standard 100-year time horizon for global warming potential values are employed within national and international carbon accounting systems, including the UK's national and regional carbon budgets and the emissions factors published by the UK Government. Reporting the GHG impact from the Proposed Development using a shorter time horizon, therefore, would result in the emissions not being comparable with carbon budgets, as required when evaluating significance. These matters are discussed in more detail in the **Applicant's Response to Deadline 3 Submissions [REP4-081]**. Notwithstanding the Applicant's stated view that the UK Government's published upstream emissions factor for natural gas remains the appropriate value to use within the GHG assessment, the Applicant submitted the **Connah's Quay Sensitivity Test description and methodology [REP5-063]** at Deadline 5 to demonstrate, inter alia, the impact of higher LNG market share and shorter Global Warming Potential (GWP) reporting periods on the GHG impact of the Proposed Development. This analysis clearly showed that the operational carbon intensity of the Proposed Development remains substantially lower than the corresponding carbon intensity of a representative unabated gas-fired power station. Since it is entirely reasonable to assume that the Proposed Development will displace unabated gas-fired generation, the sensitivity analysis demonstrated that the Proposed Development would continue to deliver substantial operational carbon savings, even with much higher LNG content and with a 20-year reporting period for methane. The significance of the Proposed Development's GHG impact was evaluated according to guidance published by ISEP. This evaluation considered several factors: absolute emissions as contextualised against UK and Welsh carbon budgets; emissions relative to a future baseline consisting of an unabated gas-fired generator; and alignment with existing and emerging policy and best practice. This evaluation is discussed in more detail in paragraphs 20.6.48 – 20.6.69 of **Chapter 20:**

[5] DESNZ (2020), Greenhouse gas reporting: conversion factors 2025,(online) Available at: https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2025 (Accessed 13/05/2026)
[6] ISEP (2025), ISEP Guide: Assessing Greenhouse Gas Emissions and Evaluating their Significance

ExQ1	Question to	Question	Applicant's Response
			Climate Change [APP-058]. The Applicant considers that the overall evaluation of significance of Moderate Adverse and Significant remains appropriate for the Proposed Development. Regarding the compliance of the GHG assessment presented in **Chapter 20: Climate Change [APP-058]** with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, the Applicant submitted a **Response to Legal Submissions on behalf of CESL Consultancy [REP5-066]** at Deadline 5. The **Response to Legal Submissions on behalf of CESL Consultancy [REP5-066]** restates the Applicant's view that the GHG assessment for the Proposed Development in **Chapter 20: Climate Change [APP-058]** was carried out in full compliance with EIA Regulations and relevant case law. The Environmental Statement was prepared by competent experts, contains the information required for a reasoned conclusion on likely significant environmental effects, and applies established methodologies and professional judgment. With reference to the GHG assessment, this was carried out using recognised government datasets, industry-standard methodologies, and accepted EIA practices. Furthermore, additional sensitivity testing in the **Connah's Quay Sensitivity Test description and methodology [REP5-063]** was provided without prejudice to the suitability and adequacy of the original assessment. The Applicant maintains that there are no legal deficiencies in the GHG assessment for the Proposed Development, and that it is fully consistent with the relevant EIA regulations and established legal principles.
Q18.2	CESL	**Upstream emissions** Please clarify succinctly which requirement(s) of Regulation 5(2) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 you contend have not been met, and explain why, in your view, the matters raised amount to a legal deficiency in the Environmental Statement rather than a disagreement with the Applicant's exercise of professional judgement.	Not addressed to the Applicant.

Table 19: Applicant's Responses to ExQ2 - Human Health

ExQ1	Question to	Question	Applicant's Response
Q19.1	N/A	No additional questions on this subject at this Deadline	N/A

Table 20: Applicant's Responses to ExQ2 - Major Accidents and Disasters

ExQ1	Question to	Question	Applicant's Response
Q20.1	The Applicant Public Health Wales (PHW) Health and Safety Executive (HSE)	**Accidental release of CO2 ([CR1-020] Ref: 6.2.4.4.15)** Noting the applicant's reply to ExQ1 20.1 and the provisions and measures to be taken to prevent an accidental release of CO_2 from either the CCP at the main development area or the pipeline to the Hynet corridor, what would a potential accidental release of CO_2 look like? Are any specific communities or habitats more at risk than others due to their low lying nature or proximity to potential release points? How would these communities be advised of a deliberate or accidental release; and what measures would be taken to disperse the CO_2 to natural background levels?	Table 22-9 of **Chapter 22: Major Accidents and Disasters (EN010166/APP/6.2.22)** assesses the potential effects of accidental CO2 releases from the pipeline in terms of the duration of a release and the extent and magnitude of the consequences. The Applicant's previous response explained why accidental CO2 release from the pipeline is extremely unlikely. Nevertheless, for minor releases, the extent of the area over which any significant effects might occur is limited to relatively short distances (within the easement of the pipeline). In the highly unlikely event of a larger release, the released CO2 could potentially affect a larger area. However, the topography along the route of this pipeline is generally flat, with only minor undulations, which reduces the risk of significant accumulation of CO2 gas and is favourable to CO2 dispersion. On the basis of the assessments undertaken, there would not be any significant or persistent accumulations within low lying areas, with the released gas dispersing naturally. The assessments undertaken demonstrate that the risk associated with potential accidental releases is very low and acceptable in terms of the relevant regulatory criteria. As part of their development of the HyNet Project and the relevant elements of the Proposed Development which will be constructed by Liverpool Bay CCS Limited (LBCCS), LBCCS is actively engaging with FCC to support their development of the offsite pipeline emergency plans for the overall pipeline system, which will include pipeline elements of the Proposed Development. These plans will include the process for notification of any pipeline related incidents to relevant authorities / agencies and regulators. Planned releases will be associated with planned maintenance activities, which will only be required very rarely, and will be controlled to ensure venting and released volumes do not generate any hazard for workforce or local populations. Appropriate notifications will be made if required. The potential for accidental releases of CO2 is considered to be Tolerable if ALARP and is therefore concluded to be Not Significant in **Chapter 22: Major Accidents and Disasters (EN010166/APP/6.2.22)**. In the vicinity of the Carbon Capture Plant (CCP) within the Main Development Area, , the likelihood of pipeline loss of containment failure and significant release of CO2 is assessed to be very low. Through Embedded Mitigation measures set out in Table 22-9 of **Chapter 22: Major Accidents and Disasters (EN010166/APP/6.2.22)** including compliance with the Pressure Equipment (Safety) Regulations and the Pipeline Safety Regulations, this is considered to be Tolerable if ALARP. All risks categorised as Tolerable-if ALARP require further assessment to determine what control measures are required as "reasonably practicable" for the detailed design of the plant and equipment to be used on the Proposed Development. As the site is expected to be regulated under COMAH, a pre-construction safety report would be submitted to the COMAH Competent Authority to be assessed before construction commences. Where safety systems, such as vents, are incorporated into design as a precautionary protective measure, their design will be such that they vent to a safe location, as is expected in process plant design. Overall, during final design, the risks across the whole of the Proposed Development will be reduced to a level representing ALARP (as low as reasonably practicable) or better, as required by the Health and Safety at Work Act and other prevailing regulation and best practice. The Environmental Permit for the Proposed Development is expected to include a pre-operational measure to submit information relating to the location of the vents, the different potential venting scenarios, information on how modelling has been used to inform the process design and manage risks associated with CO2 venting, confirmation that the design is in line with industry best practice and a vent management plan in keeping with the published guidance on emerging techniques for post-combustion carbon capture.

Table 21: Applicant's Responses to ExQ2 - Materials and Waste

ExQ1	Question to	Question	Applicant's Response
Q21.1	N/A	No additional questions on this subject at this Deadline	N/A

Table 22: Applicant's Responses to ExQ2 - Cumulative and Combined Effects

ExQ1	Question to	Question	Applicant's Response
Q22.1	N/A	No additional questions on this subject at this Deadline	N/A

Table 23: Applicant's Responses to ExQ2 - Development Consent Order

ExQ1	Question to	Question	Applicant's Response
Articles			
Q23.1	The Applicant	**Article 24: Protective works to buildings** Provide justification for the inclusion of this power when no buildings have been identified within the Order Limits that are not within the ownership of the Applicant, and none are noted to be close proximity to the proposed works.	As noted in the **Applicant's Response to the ExA's schedule of changes to the draft DCO (EN010166/APP/9.37)**, the Applicant has removed the Article related to protective works to buildings from the **Draft DCO (EN010166/APP/3.1)** at Deadline 6.
Q23.2	The Applicant	**Article 33: Acquisition of subsoil or airspace only** What is the justification for acquisition of airspace rights? No indication has been made by the Applicant of use of airspace to facilitate or operate the works. Please justify the inclusion of this power or amend the article to ensure rights to subsoil only is sought.	As noted in the **Applicant's Response to the ExA's schedule of changes to the draft DCO (EN010166/APP/9.37)**, the Applicant has amended this article within the **Draft DCO (EN010166/APP/3.1)** at Deadline 6 so that it relates to subsoil only and references to airspace have been removed.
Q23.3	The Applicant	**Article 51: Human remains** Further to the applicant's reply to ExQ1 23.6 and noting the removal of this article from numerous recently consented DCOs by the Secretary of State, please justify why the risk of encountering human remains is so high as to warrant the inclusion of this article and why the measures provided for by it are more economic or time saving than those afforded by the normal provisions for unforeseen encountering of human remains by the Burial Act 1857.	As noted in the **Applicant's Response to the ExA's schedule of changes to the draft DCO (EN010166/APP/9.37)**, the Applicant has removed the Article related to removal of human remains from the **Draft DCO (EN010166/APP/3.1)** at Deadline 6.
Schedule 2 – Requirements			
Q23.4	The Applicant	**Control plans and documents** The applicant advises that it would like to use the term "in general accordance with" to give some degree of flexibility. However, as the plans and details are developed as the design is progressed why would this term be required rather than in accordance with?	The term 'general accordance' is a precedented approach which allows necessary flexibility for developing the detailed design of the Proposed Development. The consent sought through the DCO is the equivalent to an 'outline' planning permission, meaning that the elements of detailed design are still to be progressed post-consent. This is why outline (or 'framework') plans have been prepared and certified at this stage but detailed plans will be developed in due course once the detail of the design for the Proposed Development is sufficiently progressed. The wording of the requirements and schedules within the **Draft DCO (EN010166/APP/3.1)** requires that all detailed plans to be submitted in the future will be subject to further approval by the relevant approving body, meaning there is an additional control on the form these final plans take. Where any requirement provides that the authorised development or any part of it is to be carried out in 'general accordance' with details, or a scheme, plan or other document, this is intended to mean that the undertaker will carry out such works in a way that is consistent with the information set out in those details, schemes, plans or other document or any subsequent version of the details, scheme, plan or document approved under a requirement. By using the words 'general accordance', the Applicant is not seeking the ability to step outside of the principles or the spirit of these management plans; however, it must be recognised that such plans have been submitted as 'outline plans', which necessarily means that these plans will be further developed and that the detailed plans will therefore, by definition, not accord exactly with those contained in the outlines, but are required to be 'in general accordance with' them.

ExQ1	Question to	Question	Applicant's Response
			Given that the detailed design of the Proposed Development is not yet complete, the Applicant does require a degree of flexibility to address detailed design matters and to ensure that the Applicant's ability to improve or innovate through the detailed plans to be prepared is not restricted. This aligns with the key principles behind Government's reforms in respect of speeding up infrastructure delivery and avoiding the delays caused by applicants needing to seek non-material changes post-consent where insufficient flexibility has been built into the original consenting documentation. For example, the Fingleton Nuclear Regulatory Review 2025 expressly notes at paragraph 293 "*The use of the Rochdale Envelope has a potential to overstate the adverse impacts of development. It can also have knock-on effect on the mitigation which must be secured because policy pushes towards mitigating reported impacts. In a system in which risk aversion exists, the Rochdale Envelope encourages requests for further assessment, without securing the flexibility it is intended to guarantee*." The Applicant's approach to drafting, which is highly precedented in generating station made Orders, seeks to align with this key principle and ensure delivery efficiencies, whilst still remaining within the Rochdale Envelope assessed.

Table 24: Applicant's Responses to ExQ2 - Compulsory Acquisition, Temporary possession and Other Land or Rights Considerations

ExQ1	Question to	Question	Applicant's Response
Q24.1	The Applicant	**Land plots along CO_2 corridor** Please provide an update with regards to the negotiations with all affected persons with regards to the permanent acquisition of subsoil rights along the proposed CO_2 corridor.	The Proposed CO2 Pipeline Corridor runs through plots 7/3, 7/4, 7/5 and 7/21 identified on the **Land Plans [CR1-002]**. The Affected Persons who own the freehold of these plots have been engaged with throughout the Application process and negotiations have been undertaken by WSP on behalf of LBCCS (an undertaker within the **Draft DCO (EN010166/APP/3.1)** and current leaseholder of the existing P852 pipeline easement) and in liaison with the Applicant. The detail of the negotiations between WSP and the freeholder for this land can be seen in Table 1 of the **Land and Rights Negotiation Tracker (EN010166/APP/4.2)**, at rows referenced 19, 22 and 23. In summary, engagement has been ongoing since 2024 with the Affected Persons via email, consultation and meetings with both the Applicant and LBCCS (and their agent WSP). Heads of Terms (HoTs) have been under discussion since January 2026. Following the latest meeting, the Applicant is confident that the HoTs will be agreed following the next meeting scheduled for the end of May 2026.
Q24.2	The Applicant	**Minimal use of powers** Can the Applicant explain how the scope of compulsory acquisition powers has been minimised in order to reduce interference with affected persons' rights, and what safeguards would be in place should those powers be confirmed?	The Applicant followed a considered strategy to determine the nature of compulsory acquisition or temporary possession to be sought. It first determined what works would be required to deliver the Proposed Development, seeking to limit permanent works to those within its current land holding. For works which, necessarily, fell outside of its current landholding, such as those in the Proposed Co2 Corridor, it tried to constrain the area of land required to that which was required for delivery of the works. In the case of the Proposed CO2 Corridor, the Order limits mirror that of the overlapping HyNet Order so as to ensure no additional land parcels would be disrupted by the connection works. Within the recent Change Application, the Applicant has also sought to reduce the level of acquisition being sought in the Proposed CO2 Corridor to further reduce any interference with landowners on the relevant plots of land. In the Repurposed CO2 Corridor, permanent subsurface interests have been sought along certain stretches of the pipeline where there is no clear evidence of an existing interest being held. A selective approach has been used here to ensure that, where existing land interests are evidenced and would provide for the repurposed use of the pipeline, no acquisition has been sought. Where the Applicant determined a need for permanent rights, but not a freehold interest in the relevant land, such as in the Electricity Connection Corridor and Water Connection Corridor, only permanent rights have been sought on an ongoing basis. Due to the need to deliver Abnormal Indivisible Loads (AILs) to the Main Development Area and the potential scale of works required to delivery such AILs, temporary powers to use existing ports and highway have been sought to enable temporary works facilitating such delivery. Such powers have only been sought over select strips of land where works to facilitate AIL transport are anticipated. Should the powers of acquisition sought be confirmed, the drafting of the **Draft DCO (EN010166/APP/3.1)** confirms that the relevant, necessary and precedented provisions related to compensation for the use of such powers will be in force and must be complied with by the undertaker when exercising such powers.

Abbreviations

Abbreviation	Term
AEPs	Annual Exceedance Probabilities
AILs	Abnormal Indivisible Loads
ALARP	As Low As Reasonably Practicable.
AOD	Above Ordnance Datum
APP	Application Document Reference
BS	British Standard
C&IEA	Construction and Indicative Enhancement Area
CCP	Carbon Capture Plant
CEMP	Construction Environment Management Plan
CESL	Climate Emergency Science Law
CH_4	Methane
CO_2	Carbon Dioxide
COMAH	Control of Major Accident Hazards Regulations
CQLCP	Connah's Quay Low Carbon Power
CTMP	Construction Traffic Management Plan
DCO	Development Consent Order
DEFRA	Department for Environment, Food and Rural Affairs
DPA	Dispatchable Power Agreement
EIA	Environmental Impact Assessment
EN	Examination Library Document Reference (e.g. EN010166)
ES	Environmental Statement
ESR	Electricity System Restoration
ExA	Examining Authority
ExQ	Examining Authority Question
FCC	Flintshire County Council
FCEMP	Framework Construction Environment Management Plan
FCTMP	Framework Construction Traffic Management Plan
GHG	Greenhouse Gas
GWP	Global Warming Potential
HCS	Habitat Creation Site

Abbreviation	Term
HGV	Heavy Goods Vehicle
HoTs	Heads of Terms
HSE	Health and Safety Executive
HyNet	Hydrogen Network (North West CCS cluster project)
ISEP	Institute of Sustainability and Environmental Professionals
LBCCS	Liverpool Bay CCS Limited
LNG	Liquefied Natural Gas
mOD	Metres Above Ordnance Datum
NESO	National Energy Systems Operator
NGET	National Grid Electricity Transmission
NRW	Natural Resources Wales
NSRs	Noise Sensitive Receptors
OFH1	Open Floor Hearing 1
PHW	Public Health Wales
RIHRA	Report to Inform the Habitats Regulations Assessment
SAC	Special Area of Conservation
SMP	Shoreline Management Plan
SPA	Special Protection Area