Planning Inspectorate
Arolygiaeth Gynllunio

SCOPING OPINION:

Proposed H2NorthEast

Case Reference: EN0710005

Adopted by the Planning Inspectorate (on behalf of the Secretary of State) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

21 March 2025

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APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

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1. INTRODUCTION

1.0.1 On 10 February 2025, the Planning Inspectorate (the Inspectorate) received an application for a scoping opinion from H2NorthEast Limited (the applicant) under regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) for the proposed H2NorthEast (the proposed development). The applicant notified the Secretary of State (SoS) under regulation 8(1)(b) of those regulations that they propose to provide an Environmental Statement (ES) in respect of the proposed development and by virtue of regulation 6(2)(a), the proposed development is 'EIA development'.

1.0.2 The applicant provided the necessary information to inform a request under EIA regulation 10(3) in the form of a Scoping Report, available from:

https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN0710005

1.0.3 This document is the Scoping Opinion (the Opinion) adopted by the Inspectorate on behalf of the SoS. This Opinion is made on the basis of the information provided in the Scoping Report, reflecting the proposed development as currently described by the applicant. This Opinion should be read in conjunction with the applicant's Scoping Report.

1.0.4 The Inspectorate has set out in the following sections of this Opinion where it has/ has not agreed to scope out certain aspects/ matters on the basis of the information provided as part of the Scoping Report. The Inspectorate is content that the receipt of this Scoping Opinion should not prevent the applicant from subsequently agreeing with the relevant consultation bodies to scope such aspects/ matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects/ matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.

1.0.5 Before adopting this Opinion, the Inspectorate has consulted the 'consultation bodies' listed in appendix 1 in accordance with EIA regulation 10(6). A list of those consultation bodies who replied within the statutory timeframe (along with copies of their comments) is provided in appendix 2. These comments have been taken into account in the preparation of this Opinion.

1.0.6 The Inspectorate has published a series of advice pages, including 'Advice Note 7: *Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping* (AN7)'. AN7 and its annexes provide guidance on EIA processes during the pre-application stages and advice to support applicants in the preparation of their ES.

1.0.7 Applicants should have particular regard to the standing advice in AN7, alongside other advice notes on the Planning Act 2008 (PA2008) process, available from:

'Nationally Significant Infrastructure Projects: Advice pages'

1.0.8 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (eg on formal submission of the application) that any development identified by the applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or associated development or development that does not require development consent.

2. OVERARCHING COMMENTS

2.1 Description of the Proposed Development

(Scoping Report Sections 2 and 3)

ID	Ref	Description	Inspectorate's comments
2.1.1	Paragraphs 1.2.3 and 2.2.5	Carbon dioxide (CO_2) piping connection	The Scoping Report states that the proposed development intends to discharge captured CO_2 via a piping connection from the Hydrogen Production Facility (HPF) area to a proposed above ground installation (that is being built by third parties) within the existing Central Area Transmission System (CATS) gas terminal. In the event that the third party AGI is not developed on-site, the Scoping Report states that the applicant may need to connect directly to the Northern Endurance Partnership (NEP) CO_2 pipeline. The ES should clearly describe the relationship between the proposed development and any connected projects. This should include the extent to which the proposed development is dependent on their delivery and the development timelines of the other projects, with an explanation of how these will be coordinated.
2.1.2	Paragraphs 3.1.5 to 3.1.7	Flexibility	The Inspectorate notes the applicant's intention to apply a 'Rochdale Envelope' approach to maintain flexibility within the design of the proposed development. The Inspectorate expects that at the point an application is made, the description of the proposed development will be sufficiently detailed to include the design, size, capacity, technology, and locations of the different elements of the proposed development. This should include the footprint and heights of the structures (relevant to existing and proposed ground levels), as well as land-use requirements for all elements and phases of the proposed development. The description should be supported (as necessary) by figures, cross-sections, and drawings which should be clearly and appropriately referenced. Where flexibility is sought, the ES should clearly set out the maximum design parameters that would apply for each option assessed and how these have been used to inform an adequate assessment in the EIA and the worst case for each aspect.

ID	Ref	Description	Inspectorate's comments
2.1.3	Paragraph 3.1.3	Natural resources	The Scoping Report states that natural gas, oxygen (O_2), nitrogen (N_2) and water will be required for the operational phase of the proposed development. Paragraph 3.1.3 states that pipelines would be used to supply O_2 and N_2 from third party providers, which could be used in-combination or as an alternative to O_2 and N_2 supply from an air separation unit (ASU). The ES should include an estimate of the likely volume of the different natural resources, including those identified above, that will be required for the operation of the proposed development, how these will be transported to the site, and an assessment of any likely significant effects arising from the use of such resources.
2.1.4	Paragraph 3.2.6	Flare	The proposed development includes a flare, up to 110m in height. It is understood that the flare is required for use in the event of emergencies to safely release any high-pressure components via controlled combustion. It is unclear what would constitute an emergency and the frequency these are likely to occur. The ES should clarify the types of gases to be flared and the frequency of use of the flares and ensure that this is reflected in any assessments of likely significant effects.
2.1.5	Paragraph 3.2.7	Electricity generation infrastructure	The Scoping Report states that phase 2 of the proposed development may also include electricity generation infrastructure with a capacity in excess of 50MW in the form of natural gas-fired generating station or be fuelled by hydrogen. Should the draft Development Consent Order (dDCO) allow for the generating station component to operate independently of the carbon capture, a worst case assessment of likely significant effects should be undertaken. If assessments in the ES rely on a capture rate of 95% it should be clear how this would be secured in the dDCO.
2.1.6	Paragraphs 3.2.22 to 3.2.25	River Tees crossing	The Scoping Report outlines that several different approaches are under consideration for the hydrogen pipeline (east) and effluent connection corridor pipeline crossing the River Tees. This could involve using an existing tunnel, repurposing an existing pipeline or via a new crossing below the bed of the River Tees using horizontal directional drilled (HDD) or microbore tunnel (MBT) crossing. Paragraph 3.2.24 of the Scoping Report confirms that only trenchless techniques are being considered for crossing of the River Tees. The Inspectorate welcomes the use of

ID	Ref	Description	Inspectorate's comments
			trenchless techniques in environmentally sensitive areas but notes that trenchless techniques have different land requirements compared to other approaches, such as open cut trenching. The full range of environmental effects should be considered when determining a preferred construction method. The ES should confirm the minimum and maximum depths of the crossing.
2.1.7	Table 3.1	Other watercourse crossings	The Scoping Report suggests that crossings of other sensitive watercourses (ie main rivers and ordinary watercourses) may also be required. Table 3.1 sets out the construction methodologies that are being considered for crossings, including open cut trenching (excluding the River Tees crossing). The ES should describe the nature of any proposed works within or in proximity of sensitive watercourses. Information should be provided regarding the location, scale, and dimensions of any proposed watercourse crossings, open trenches or instream structures, as well as the nature of any associated construction works (eg dewatering, trenching, and HDD). The ES should consider the potential of such works to negatively impact watercourses within the study area, including the ecological status of any watercourses protected under the Water Framework Directive (WFD). The results of the WFD assessment should inform the ES.
2.1.8	Paragraph 3.3.2	Site clearance and demolition	The proposed development may involve demolition as part of the site clearance works. The ES should provide a description of any demolition works required and assessment of any resulting likely significant effects.
2.1.9	Paragraph 3.3.10	Vessel movements	Paragraph 3.3.10 states that several routes are under consideration to be used for the shipborne delivery of large plant and equipment during construction of the proposed development. The ES should detail the type and number of anticipated vessel movements during construction of the proposed development and explain the assumptions upon which these have been established. The ES should set out the assumptions which have been made regarding berthing and navigational arrangements and explain why these are considered to represent the worst case scenario in terms of environmental effects. The ES should also consider, within relevant sections, the requirement for contingency plans in the

ID	Ref	Description	Inspectorate's comments
			event that river navigation is not possible, for example extreme meteorological events or jetty outage.
2.1.10	Paragraph 3.4.1	Phasing	The Scoping Report states that the proposed development is expected to take place across two phases and comprise up to three trains (each train consists of a HPF unit and associated carbon capture plant (CCP)). Each train has a capacity ranging from 355 megawatt thermal (MWth) up to 710MWth. Phase 1 will develop a single HPF train and phase 2 may add one or two further trains. The total design capacity of the proposed development is expected to be up to 1 gigawatt thermal (GWth). Paragraph 3.4.1 provides an indicative construction timeline, with phase 1 commencing in 2027 and lasting approximately four years. Construction for phase 2 is expected to take four years per train. However, no specific start date for the construction of phase 2 has been provided. The ES should provide a more detailed phasing plan and include an assessment of any likely significant effects arising from the phased nature of the proposed development, including risks of major accidents from the proximity of construction and decommissioning activities to an operational hydrogen production plant. Measures required to mitigate any significant effects should be clearly described in drafts of the construction environmental management plan (CEMP) and/ or an operational environmental management plan (OEMP) submitted with the application.
2.1.11	Paragraph 3.4.42	Construction lighting	The approach to operational lighting is described in paragraph 3.4.42 of the Scoping Report. In addition to operational lighting, the ES should clearly describe the location and design of lighting required along the construction working widths and at construction compounds. Any likely significant effects should be assessed.
2.1.12	Paragraph 3.8.1	Operational lifespan	Paragraph 3.8.1 of the Scoping Report states that each train of the HPF is expected to have a design lifespan of approximately 25 years; however, the Inspectorate notes that the operational life for each train may extend beyond this. Acknowledging uncertainty around the operational lifespan and taking into account the phased nature of the construction period, the ES should clearly identify the operational duration that has been assumed as part of the EIA and how that has been determined. Furthermore, the ES should identify

ID	Ref	Description	Inspectorate's comments
			whether the proposed development would require any components to be replaced when they reach the end of their operational lifespan and any likely significant effects arising from this. The ES should be clear as to the duration of the operational period and ensure that this is consistently applied to all assessments unless otherwise justified.
2.1.13	Section 3.8	Decommissioning	The ES should include a description of the process and methods of decommissioning, land use requirements and estimated timescales. A description of any assumptions made in the assessment, eg about the approach to retention or removal of pipelines, should be provided. Any decommissioning associated with dismantling and replacing elements of the proposed development once they reach the end of their design life should be assessed where significant effects are likely to occur. The Inspectorate strongly recommends that an outline decommissioning environmental management plan (DEMP) is submitted with the DCO application.
2.1.14	N/A	Figures	The applicant should ensure that all features on the figures are clearly discernible, avoiding the use of coloured boundaries and features that are too similar to be differentiated. Figures should clearly show the location and extent of the proposed HPF and routing of hydrogen pipeline(s). The applicant's attention is drawn to the response from the Environment Agency (EA) in appendix 2 of this Opinion.
2.1.15	N/A	Construction and maintenance access	The ES should identify the locations of access routes to site for construction and maintenance of the pipeline corridors. Any likely significant effects resulting from their construction, operation and decommissioning should be assessed.

2.2 EIA Methodology and Scope of Assessment

(Scoping Report Section 5)

ID	Ref	Description	Inspectorate's comments
2.2.1	Paragraph 3.6.3	Construction Environmental Management Plan (CEMP)	The Inspectorate welcomes the commitment to submit a framework CEMP with the ES. In addition to the matters listed at paragraph 3.6.4 of the Scoping Report, the Inspectorate advises that the framework CEMP should contain details of all measures referred to in the ES required to mitigate construction effects, unless these are secured by alternative mechanisms (in which case this should be explained and the alternative mechanism confirmed). The ES should clearly describe the efficacy of proposed measures and any residual effects following implementation, and it should also assess any inter-related effects of the mitigation measures, eg the presence of any noise screening required to be considered in the landscape and visual amenity assessment.
2.2.2	Paragraphs 5.1.21 and 5.1.22	Mitigation	The Scoping Report refers to the use of mitigation measures to reduce effects to an acceptable level. The ES should set out any measures relied upon to avoid significant effects and demonstrate how these will be secured through the dDCO or other legal mechanism.
2.2.3	Paragraph 5.1.22	Monitoring	The Scoping Report makes reference to monitoring the effectiveness of mitigation. Where the ES concludes that monitoring is required, the applicant should provide a document that describes the monitoring activities, who has responsibility for them, frequency, any trigger points for remedial action and how it is secured through the dDCO or other legal mechanism.
2.2.4	Paragraph 5.2.22	Transboundary	The Inspectorate on behalf of the SoS has considered the proposed development and concludes that the proposed development is unlikely to

ID	Ref	Description	Inspectorate's comments
			have a significant effect either alone or cumulatively on the environment in a European Economic Area State. In reaching this conclusion the Inspectorate has identified and considered the proposed development's likely impacts including consideration of potential pathways and the extent, magnitude, probability, duration, frequency and reversibility of the impacts. The Inspectorate considers that the likelihood of transboundary effects resulting from the proposed development is so low that it does not warrant the issue of a detailed transboundary screening. However, this position will remain under review and will have regard to any new or materially different information coming to light which may alter that decision. Note: The SoS' duty under regulation 32 of the 2017 EIA Regulations continues throughout the application process. The Inspectorate's screening of transboundary issues is based on the relevant considerations specified in the annex to its Advice Page 'Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process', links for which can be found in paragraph 1.0.7 above.
2.2.5	N/A	Professional judgment	The ES should clearly identify where professional judgement has been relied upon to determine the level of significance of effects. Any use of professional judgement to assess significance should be fully justified within the ES.
2.2.6	N/A	Environment Agency data	The EA has published new flood and coastal erosion risk data in 2025 following the release of its 'National assessment of flood and coastal erosion risk in England 2024'. Further updates are also expected to follow. The applicant should ensure that assessments take account of updated data sets as these become available through Defra's Data

ID	Ref	Description	Inspectorate's comments
			Services Platform. Where relevant, the applicant is encouraged to liaise with the EA to determine the implications for project design and the scope of assessments. The applicant's attention is drawn to the consultation response from the EA (appendix 2 of this Opinion).

3. ENVIRONMENTAL ASPECT COMMENTS

3.1 Air Quality

(Scoping Report Section 6.1)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.1.1	Paragraph 6.1.38 Table 6.9	Point source emissions – assessment of potential emissions to air from amines or amine degradation products – operation	The applicant seeks to scope out this matter on the basis that the components with the potential to generate amine or amine degradation products are part of a closed loop system and, whilst there is the potential for carryover within this process, any such emissions are either retained and sent off-site via pipeline or vented to the on-site flare and fully combusted. The Inspectorate agrees that significant effects from the point source emission of amines or amine degradation products to air are unlikely to occur and is content for this matter to be scoped out of further assessment.
3.1.2	Paragraph 6.1.42 Table 6.9	Assessment of road traffic emissions – operation	The Scoping Report proposes to scope this matter out on the basis that operational traffic movements are not expected to exceed the screening criteria set out in the Environmental Protection UK (EPUK)/ Institute of Air Quality management (IAQM) land use guidance document. Given the estimated numbers of operational staff required, and pending the confirmation of agreement with the relevant highways authority, the Inspectorate agrees that this matter can be scoped out of further assessment. The ES should provide figures for the predicted number of traffic movements during operation.
3.1.3	Paragraph 6.1.43 Table 6.9	Vehicle movements associated with major turnarounds and planned maintenance periods – operation	The Scoping Report proposes to scope this matter out stating that the vehicle movements associated with major turnarounds and planned maintenance periods are not expected to exceed the EPUK/ IAQM screening criteria. The Inspectorate recognises that vehicle movements associated with major turnarounds and planned maintenance periods are unlikely to result in significant effects on air quality receptors. However, further information on the predicted number of vehicle and HGV movements during planned maintenance periods should be provided in the ES. The Inspectorate considers that providing that this information is included in the ES and given

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			the estimated number of staff required during operation, this matter can be scoped out of further assessment.

ID	Ref	Description	Inspectorate's comments
3.1.4	Paragraphs 6.1.24 and 6.1.25 Paragraphs 6.1.71, 6.1.74 and 6.1.79	Ecological receptors	The Scoping Report states that the list of ecological receptors set out in paragraph 6.1.24 will be further refined once the design and Order Limits are fixed. The ES should show that all ecological receptors relevant to the air quality assessment have been identified and explain how any likely significant effects have been determined. Paragraph 6.1.79 states that an assessment of the potential for likely significant effects on the relevant ecological receptor sites will be undertaken and the results reported within the biodiversity ES chapter and Habitats Regulations Assessment (HRA). The ES should provide clear cross references to the assessment of air quality where relevant to the biodiversity ES chapter and HRA, including as part of a nutrient neutrality screening assessment. Efforts should be made to agree the ecological receptors included with relevant consultation bodies, including Natural England.
3.1.5	N/A	Sensitive receptors	The ES should identify the locations of sensitive air quality receptors on appropriate plans.
3.1.6	N/A	Guidance	The applicant's attention is drawn to the Defra advice 'PM2.5 Targets: Interim Planning Guidance'. The ES should explain how key sources of air pollution within the proposed development have been identified and how action has been taken to minimise emissions of PM2.5 or its precursors.

3.2 Biodiversity

(Scoping Report Section 6.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.2.1	Paragraph 6.2.25 Table 6.14	Reptiles	The Scoping Report states that results of previous surveys of the indicative proposed development site (undertaken in 2022 and 2023) did not identify any reptiles, and the closest known population of reptiles was recorded 1.5km north of the site by additional surveys of the Teesside area. The Scoping Report states that considering the limited connectivity between this location and the proposed development, the presence of reptiles on site is unlikely and proposes to scope out an assessment of this matter. The Inspectorate agrees that the proposed development is unlikely to result in significant effects on reptiles and is content to scope this matter out of further assessment.

ID	Ref	Description	Inspectorate's comments
3.2.2	Paragraph 6.2.8	Assessment methodology – ecological features	The Scoping Report states that in line with Chartered Institute of Ecology and Environmental Management (CIEEM) good practice guidance the Ecological Impact Assessment (EcIA) will focus on those ecological features that are 'relevant' and will not address all ecological features with the potential to occur. The ES should clearly explain how ecological features have been determined as being 'relevant' to the assessment.
3.2.3	Paragraphs 6.2.8 to 6.2.12 and 6.2.77	Assessment methodology – zone of influence (ZoI)	Paragraph 6.2.10 states that the ZoI for biodiversity varies for each identified ecological receptor and has been informed by the CIEEM EcIA guidelines. The ES should provide a rationale for the extent of each study area used in the biodiversity assessment. The Inspectorate advises that the study area should be based on the proposed development's ZoI and the potential for likely significant effects, rather than fixed distances. The ES should consider the potential for effects to occur beyond a fixed distance, particularly for mobile species such as birds or where there is hydrological

ID	Ref	Description	Inspectorate's comments
			connectivity. Efforts should also be made to agree the study area(s) with relevant consultation bodies.
3.2.4	Paragraphs 6.2.14 to 6.2.28	Ecological surveys	Efforts should be made to agree the scope, timing and extent of survey effort with relevant consultation bodies prior to survey work commencing. Evidence of any agreement should be presented in the ES. Where it is ultimately determined to scope out further survey effort for particular receptors, the ES should provide an explanation of why this approach is appropriate and evidence of any agreement with relevant consultation bodies.
3.2.5	Paragraph 6.2.14 Table 6.14	Hedgerow loss	The ES should confirm the overall length of hedgerow likely to be affected by the proposed development and categorise the amount likely to be subject to temporary and/ or permanent effects.
3.2.6	Paragraphs 6.2.34 and 6.2.119	Priority habitats – ancient woodland and veteran trees	The Inspectorate advises that the assessment of habitat loss, temporary land take and disturbance and degradation of ecological features (particularly from air quality effects) should include consideration of any impacts to ancient woodland and veteran trees.
3.2.7	Paragraphs 6.2.37, 6.2.62, 6.2.82, and 6.8.91 Appendix B, Table B.1	Invasive non-native species (INNS)	Potential spread of INNS should be considered as an impact pathway as part of the assessment. The Inspectorate advises that the ES should identify and describe any INNS present in the baseline and include an assessment where there is the potential for significant effects to occur. An assessment should consider the impact of INNS on any protected species and habitats at all phases of the proposed development and describe any necessary mitigation measures with reference to biosecurity measures and an invasive species management plan. The applicant's attention is drawn to the advice from the EA on this matter (provided in appendix 2 of this Opinion).

ID	Ref	Description	Inspectorate's comments
3.2.8	Paragraphs 6.2.36 to 6.2.55	Protected and notable species – construction mitigation	The applicant's attention is drawn to the advice from the EA (appendix 2 of this Opinion) on mitigation measures with respect to mammals such as otter, which may become trapped by compounds and open cut trenches during construction. The ES should set out any mitigation measures required to prevent otters and other mammals from becoming trapped during the construction of compounds and open cut trenches.
3.2.9	Paragraphs 6.2.60 to 6.2.62 and 6.6.44	Potential impacts - construction	The Scoping Report states that potential impacts during construction could include harm to the health of ecological receptors as a result of airborne dust, contaminated run-off or leaching and groundwater migration. The ES should include information on the maintenance of riparian buffer zones for watercourse crossings during the construction of the proposed development. The applicant's attention is directed to the consultation response from the EA in appendix 2 of this Opinion.
3.2.10	N/A	Confidential annexes	Public bodies have a responsibility to avoid releasing environmental information that could bring about harm to sensitive or vulnerable ecological features. Specific survey and assessment data relating to the presence and location of species such as badgers, rare birds and plants that could be subject to disturbance, damage, persecution, or commercial exploitation resulting from publication of the information should be provided in the ES as a confidential annex. All other assessment information should be included in an ES chapter, as usual, with a placeholder explaining that a confidential annex has been submitted to the Inspectorate and may be made available subject to request.

3.3 Climate Change and Resilience

(Scoping Report Section 6.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.3.1	Paragraph 6.3.14	CCR and ICCI assessment – construction	The Scoping Report proposes to scope this matter out on the basis that climate change is not expected to be so significant within the construction programme timescales as to require additional mitigation beyond current best practice and that current environment, health and safety regimes would provide adequate mitigation. Whilst the Inspectorate agrees that the effects of climate change are not likely to be significantly different during phase 1 of the construction phase, the Inspectorate notes that phase 2 could take up to an additional eight years to complete. The Inspectorate considers that the effects of climate change could significantly worsen within this timescale, and as such, is not in a position to scope this matter out. The ES should assess any potentially significant effects as a result of the vulnerability of the construction phase and associated activities to climate change.

ID	Ref	Description	Inspectorate's comments
3.3.2	N/A	N/A	N/A

3.4 Cultural Heritage

(Scoping Report Section 6.4)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.4.1	Paragraphs 6.4.25 and 6.4.35 Table 6.21	Direct impacts to heritage assets from HPF – all phases	The Scoping Report proposes to scope out this matter on the basis that the HPF is located in an area of 1970s land reclamation, and no cultural heritage assets have been identified within the existing CATS Terminal or surrounding area. In the absence of information such as evidence demonstrating clear agreement with relevant consultation bodies, the Inspectorate is not in a position to agree to scope out this matter at this stage. The ES should assess the direct impacts to heritage assets from the proposed HPF or provide the information referred to demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects.
3.4.2	Paragraphs 6.4.25 and 6.4.35 Table 6.21 Appendix A, figures 6.7.1 and 6.7.2	Impacts to setting of heritage assets from HPF – all phases	The Scoping Report provides limited justification for scoping out an assessment of indirect impacts to cultural heritage assets from the HPF. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope out this matter from further assessment. The ES should either include an assessment as described below or information demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects. The ES should identify potential impacts to the setting of heritage assets during construction, operation and decommissioning and assess any impacts that are likely to result in significant effects. The ES should take into account any machinery of plant required to construct or decommission the proposed 110m flare stack. The assessment of impacts to setting should be supported by baseline data which is sufficient to identify all designated and non-designated built heritage assets which could be impacted by the HPF. The Zone of Theoretical Visibility (ZTV) developed for the landscape and visual amenity assessment, provided in Appendix A, Figures 6.7.1 and 6.7.2 of the Scoping Report, should be used to confirm which heritage assets may

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			experience impacts to their setting from the HPF. The ES should fully justify the choice of heritage assets included in the setting assessment and their locations should be depicted on a supporting plan. The assessment should be supported by appropriate visualisations such as photomontages to help illustrate the likely impacts of the HPF. Effort should be made to agree appropriate viewpoint locations for such visualisations with relevant consultation bodies including local authorities and Historic England. Cross reference should be made to the landscape and visual amenity ES chapter to avoid duplication.
3.4.3	Paragraph 6.4.26	Direct impacts to marine heritage assets from HPF – construction	The Scoping Report proposes to scope out an assessment of direct impacts to marine heritage assets in and around the HPF on the basis that construction would only involve works to an area of 1970s reclamation embankment that is not considered to be of heritage interest. The Scoping Report states that should assumptions to works below the mean high-water spring (MHWS) change during the EIA a proportionate approach to assessment of potential effects on marine heritage assets will be agreed via technical engagement with relevant consultation bodies. The Inspectorate is content with this approach and agrees that this matter can be scoped out of further assessment.
3.4.4	Paragraphs 6.4.27 to 6.4.30 Table 6.21	Direct impacts to heritage assets from hydrogen pipeline (east) – construction	The Scoping Report proposes to scope out direct cultural heritage impacts during construction of the hydrogen pipeline (east) on the basis that the pipeline is proposed to follow existing pipeline routes within areas of reclaimed land or existing industrial land where there is no heritage value and previous construction would have already removed any previously present archaeological remains. In the absence of information such as evidence demonstrating clear agreement with relevant consultation bodies, the Inspectorate is not in a position to agree to scope out this matter at this stage. The ES should provide an assessment of this matter or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.4.5	Paragraphs 6.4.27 to 6.4.30 and 6.4.36 Table 6.21	Impacts to setting of heritage assets from hydrogen pipeline (east) – all phases	The Inspectorate considers that the installation of new above ground infrastructure as part of the hydrogen pipeline (east) has potential to adversely impact the setting of designated heritage assets. As such, an assessment of this matter should be provided, or the ES should otherwise explain, with evidence of agreement from relevant consultation bodies, the absence of likely significant effects.
3.4.6	Paragraph 6.4.29	Direct impacts to marine heritage assets from hydrogen pipeline (east) – construction	The Scoping Report states that the hydrogen pipeline (east) crossing of the River Tees may be installed by using a pre-existing tunnel, repurposing an existing pipeline or an alternative trenchless crossing method. It is considered unlikely to lead to impacts on marine heritage assets so it is proposed to scope this matter out of the ES. Paragraph 6.4.29 acknowledges that new excavation may be required to install the hydrogen pipeline (east) crossing of the River Tees. The Inspectorate considers that an assessment of this matter should be provided, or the ES should otherwise explain, with evidence of agreement from relevant consultation bodies, the absence of likely significant effects.
3.4.7	Paragraph 6.4.37 Table 6.21	Direct impacts to below ground heritage assets from hydrogen pipeline(s) – operation	The Scoping Report states that there are not expected to be any potential impacts to buried archaeology during the operation of the proposed development as any impacts will have occurred during the construction phase. The Inspectorate agrees that operation of the hydrogen pipeline(s) is unlikely to lead to significant effects on below ground heritage assets and is content for this matter to be scoped out of further assessment.
3.4.8	Paragraphs 6.4.39 to 6.4.40 Table 6.21	Direct impacts to below ground heritage assets from hydrogen pipeline(s) – decommissioning	The Scoping Report states that there are not expected to be any potential impacts to buried archaeology during the decommissioning phase of the hydrogen pipeline(s) as any impacts would have occurred and been mitigated during the construction. On this basis, the Inspectorate agrees that this matter can be scoped out of further assessment.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.4.9	Paragraphs 6.4.39 to 6.4.40 Table 6.21	Impacts to setting of heritage assets from hydrogen pipeline(s) – decommissioning	Paragraph 6.4.40 acknowledges that decommissioning of the hydrogen pipeline(s) could result in temporary impacts to the setting of heritage assets. However, the Scoping Report states that potential decommissioning impacts to setting are likely to be similar to those described for construction and proposes to address decommissioning impacts in a qualitative appraisal. The Inspectorate is content with this approach and provided no significant effects are identified, agrees that a more detailed assessment can be scoped out of further assessment.

ID	Ref	Description	Inspectorate's comments
3.4.10	Paragraphs 6.4.6 to 6.4.7	Study area	The Scoping Report states that the study area has been derived using professional judgement. It is considered to be appropriate for capturing a suitable data set from the Historic Environment Record (HER) to inform an understanding of the archaeological context proportionate to the predicted magnitude of impacts (physical impacts to archaeological remains and impacts to the setting of designated heritage assets) for all components of the proposed development. The ZTV developed for the landscape and visual amenity ES chapter should be used to inform a wider study area where visual effects on the setting of heritage assets can be identified. The ES should provide a justification for the study area including agreement with the relevant consultation bodies. The applicant's attention is drawn to the advice from Historic England on this matter (shown in appendix 2 of this Opinion).
3.4.11	Paragraph 6.4.18	Assessment of archaeological potential	The results and assessment of effects on archaeological assets should be clearly presented in the ES along with a description of any uncertainties or assumptions applied. The ES should provide confirmation of any further field work, surveys and evaluation required and how this has been accounted for in the assessment. Details of how these measures would be secured should also be provided.

ID	Ref	Description	Inspectorate's comments
3.4.12	Paragraph 6.4.49	Receptors	The applicant should seek to agree the list of identified heritage receptors for the ES with the relevant consultation bodies including Historic England and local planning authorities.
3.4.13	Section 5.2	Cumulative impacts	The assessment of cumulative impacts on heritage assets during all phases of the proposed development should be set out in the ES along with any likely significant effects and mitigation measures. The applicant's attention is drawn to the advice from Historic England on this matter (shown in appendix 2 of this Opinion).

3.5 Greenhouse Gases

(Scoping Report Section 6.5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.5.1	Paragraphs 6.5.17 to 6.5.18	Cumulative impacts – all phases	The Scoping Report proposes to scope this matter out on the basis that the Institute of Environmental Management and Assessment (IEMA) Greenhouse Gas (GHG) guidance (2022) states that cumulative emissions are intrinsic to defining the receptor (atmospheric concentration of GHGs) as highly sensitive to further emissions and considers that cumulative projects do not need to be assessed individually. On this basis, the Inspectorate agrees that cumulative assessment of GHG emissions can be scoped out of the ES.

ID	Ref	Description	Inspectorate's comments
3.5.2	N/A	N/A	N/A

3.6 Ground Conditions

(Scoping Report Section 6.6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.6.1	Paragraphs 6.6.46 and 6.6.53	Impacts to soils within the HPF area – all phases	This matter is proposed to be scoped out on the basis that the HPF area consists predominantly of urban soils and contains no best and most versatile (BMV) land or associated valuable agricultural soils. The Inspectorate agrees that impacts to soils within the HPF area are unlikely to result in significant effects and is content for this matter to be scoped out of further assessment.
3.6.2	Paragraph 6.6.49	Impacts from ground contamination to HPF area – operation	The Scoping Report proposes to scope out this matter stating that ground contamination impacts during operation are likely to be significantly less than during construction and remedial works that form part of the design of the proposed development may have a beneficial impact through a reduction in overall contamination. The Inspectorate agrees that effects from ground contamination are unlikely to be significant during the operational phase and is content for this matter to be scoped out of further assessment. However, the ES should provide evidence, including agreement with relevant consultation bodies, that there would be no activities undertaken during the operation of the proposed HPF that could lead to the creation of contamination pathways through the disturbance or release of contaminants.
3.6.3	Paragraph 6.6.50	Impacts from ground contamination to hydrogen pipeline(s) and associated development components – operation	The Scoping Report proposes to scope out this matter stating that appropriate design and construction of the hydrogen pipeline(s) would be sufficient to control any potential contamination pathways. On this basis, the Inspectorate agrees that effects from ground contamination are unlikely to be significant during the operational phase and is content for this matter to be scoped out of further assessment. However, the ES should provide evidence, including agreement with relevant consultation bodies, that there would be no activities undertaken during the operation of the hydrogen pipeline(s) and associated

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			development that could lead to the creation of contamination pathways through the disturbance or release of contaminants.
3.6.4	Paragraph 6.6.51	Future ground contamination associated with the operation of the HPF	The applicant proposes to scope this matter out on the basis that the HPF will require an environmental permit, and adherence to the Environmental Permit Regulations (EPR 2016) will be required so that any impacts of emissions to air, soil, surface and groundwater, impacts to the environment and human health will be minimised and avoided using best available techniques as far as reasonably practicable. The Inspectorate agrees that the operation of the HPF is unlikely to lead to future land contamination. As such, the Inspectorate is content for this matter to be scoped out of further assessment.
3.6.5	Paragraph 6.6.54	Impacts to soils from hydrogen pipeline(s) – operation	The Scoping Report seeks to scope out this matter stating that although the hydrogen pipeline corridors may contain BMV land, the hydrogen pipeline(s) are below ground that will be disturbed during construction and reinstated once the hydrogen pipeline(s) have been installed. Provided that affected land is reinstated post-construction and the methodology for reinstatement is agreed with relevant consultation bodies, the Inspectorate agrees that significant effects are not likely to occur and this matter can be scoped out of further assessment.
3.6.6	Paragraph 6.6.59	Impacts from ground contamination to HPF area – decommissioning	This matter is proposed to be scoped out on the basis that construction will inform the decommissioning phase regarding the location of any previously unidentified areas of contamination, in addition remedial works during construction will reduce the overall amount of contaminated land on site. The Scoping Report does not consider the potential for structures left in-situ to act as sources of contamination. As such, the Inspectorate is currently not in a position to scope this matter out. The ES should assess the potential decommissioning impacts on ground contamination or demonstrate that that the infrastructure proposed to be left in-situ would not pose a significant risk to groundwater.

ID	Ref	Description	Inspectorate's comments
3.6.7	N/A	Off-site contamination sources	The ES should consider both on-site and off-site sources of contamination, including the adjacent Aurorium facility and ConocoPhillips oil refinery sites. The applicant's attention is drawn to the consultation response from the EA on this point (appendix 2 of this Opinion).
3.6.8	Paragraphs 3.3.14 to 3.3.25	Hydrogeological risk assessment	The Inspectorate notes that trenchless watercourse crossings are proposed but the Scoping Report does not provide reference to hydrogeological risk assessments. For the avoidance of doubt, where trenchless crossings are proposed beneath vulnerable features such as Secondary A, Principal aquifers, surface water bodies or sensitive ecological sites, then a hydrogeological risk assessment should be carried out. The applicant's attention is drawn to the consultation response from the EA on this point (appendix 2 of this Opinion).
3.6.9	Paragraphs 6.6.11 and 6.6.20	Baseline Information	The Inspectorate notes that the list of sources that informed the ground conditions baseline does not include reference to current and historic Ordnance Survey (OS) maps. For the avoidance of doubt, the ES baseline should include consideration of OS maps.
3.6.10	Paragraphs 6.2.13 and 6.6.28	Baseline conditions and receptors – contamination	The study area includes a number of sensitive designated ecological receptors, including the designated sites listed in paragraph 6.6.28 of the Scoping Report. The ES should provide an assessment of likely significant effects from contamination of these sites as well as a description of relevant mitigation measures and how these would be secured through the dDCO. The ES should provide clear cross reference to the biodiversity ES chapter, where relevant.
3.6.11	Paragraph 6.6.32	Aquifers	The Inspectorate notes that the descriptions of geology and hydrogeology in chapter 2 of the Scoping Report do not include any reference to the aquifer designations of the superficial or bedrock geological units. The ES should include a summary of the aquifer designations of the bedrock and superficial strata present at the site where aquifers are discussed. The applicant's attention is directed to the consultation response from the EA on this point (appendix 2 of this Opinion).

ID	Ref	Description	Inspectorate's comments
3.6.12	Paragraph 6.6.64	Mitigation	For the avoidance of doubt, any additional mitigation required to avoid significant effects should be detailed within the ES. The ES should also describe how any mitigation measures would be secured through the dDCO.
3.6.13	Paragraphs 6.6.66 to 6.6.69	Embedded measures	The ES should contain consideration of measures and protocols intended to manage unidentified contamination during construction, such as a contamination watching brief and discovery protocol, and drilling fluid breakout plans, where significant effects are likely to occur. The applicant's attention is drawn to the consultation response from the EA provided in appendix 2 of this Opinion.

3.7 Landscape and Visual Amenity

(Scoping Report Section 6.7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.7.1	Paragraphs 6.7.32, 6.7.41, 6.7.53 and 6.7.63 Table 6.38	National Character Area (NCA) 23: Tees Lowlands – HPF and hydrogen pipeline(s)	The Scoping Report proposes to scope out an assessment of the impacts to the NCA 23: Tees Lowlands during all phases of the proposed development on the basis that the existing landscape has been largely influenced by industrial development and given the relative scale of the proposed development in comparison to the extent of the NCA any effects are unlikely to be significant. Table 6.38 of the Scoping Report states that the proposed development has potential to result in significant changes to the overall landscape character of the site. On this basis, the Inspectorate considers that the ES should identify, locate and assess both direct and indirect impacts to the NCA or provide evidence demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects.
3.7.2	Paragraphs 6.7.35 and 6.7.44 Table 6.38	East Billingham to Teesmouth Landscape Character Area (LCA) – HPF	The Scoping Report states that the East Billingham to Teesmouth LCA is dominated by industrial features and hardstanding and given the proximity and similarities between the proposed HPF and the surrounding industrial development, the applicant proposes to scope out this matter. The Inspectorate notes that the proposed HPF has potential to result in significant changes to the overall landscape character of the site and considers that the ES should identify, locate and assess both direct and indirect impacts to the LCA or provide evidence demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects.
3.7.3	Paragraphs 6.7.36 and 6.7.45	Marine Character Area (MCA) 22: Tyne, Tees and Wear Estuaries and Coastal Waters – HPF	The Scoping Report proposes to scope out this matter due to the small scale of the proposed HPF within the context of an extensively developed coast. Having considered the nature and location of the HPF and the characteristics of the surrounding area, the Inspectorate is content that impacts to the MCA from the HPF are unlikely to lead to

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			significant effects. The Inspectorate agrees that this matter can be scoped out of further assessment. It is not clear whether an assessment of the impacts of the hydrogen pipeline(s) on the MCA is proposed to be scoped out of the assessment. For the avoidance of doubt, the ES should either assess effects of the hydrogen pipeline(s) on the MCA or provide a justification to the absence of likely significant effects.
3.7.4	Paragraph 6.7.58 Table 6.38	Redcar and Cleveland LCA – hydrogen pipeline(s)	The Inspectorate has considered the nature and location of the hydrogen pipeline(s) and the characteristics of the surrounding area and is content that impacts to the Redcar and Cleveland LCA are unlikely to lead to significant effects. The Inspectorate agrees that this matter can be scoped out of further assessment.
3.7.5	Tables 6.34 to 6.38 Appendix A, figures 6.7.1 and 6.7.2	Visual impacts from the HPF and hydrogen pipeline(s) on the following major highways: • A178 • A1185 • A1085	The Scoping Report seeks to scope out these matters on the basis that these views have a low susceptibility to change and the proposed development would be experienced in context with the surrounding industrial buildings and structures, including tall industrial elements such as flare stacks, pylons and container cranes. The ZTV illustrated in appendix A, figures 6.7.1 and 6.7.2 shows that the proposed development will be visible to the users of the major highways within the study area. The ES should assess potential effects on views and visual amenity within the ZTV where significant effects are likely to occur. The Inspectorate considers that the ES should assess the visual impacts on these receptors or provide evidence demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects.
3.7.6	Tables 6.34, 6.35 and 6.38	Visual impacts from the HPF on the following local highways:	The Scoping Report proposes to scope out these matters on the basis that these views would be largely restricted and would be experienced in context with the surrounding industrial buildings and structures. However, Table 6.34 states that construction works for the proposed HPF would be discernible in views for motorists along Cowpen Bewley Road.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		• Cowpen Bewley Road • Cowpen Lane • Wolviston Back Lane	The Inspectorate considers that the ES should assess the visual impacts on these receptors during construction of the proposed HPF or provide evidence demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects.
3.7.7	Tables 6.34, 6.35 and 6.38 Appendix A, figures 6.7.1 and 6.7.2	Visual impacts from the HPF on the following recreational and residential receptors: • users of King Charles III England Coast Path • users of National Cycle Network (NCN) Route 14 • users of NCN Route 65 • visitors to Teesmouth National Nature Reserve (NNR) • visitors to Saltholme Nature Reserve	The applicant proposes to scope out an assessment of the visual impacts from the HPF on these recreational and residential receptors stating that views towards the proposed development would be experienced in context of a busy landscape that consists of industrial buildings and structures. However, the ZTV illustrates that elements of the proposed HPF (ie 110m flare stack) would be visible to these receptors within the study area. The ES should assess potential effects on views and visual amenity within the ZTV where significant effects are likely to occur. The Inspectorate considers that the ES should assess the visual impacts on these receptors or provide evidence demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		• visitors to Cowpen Bewley Woodland Park • visitors to the Teesdale Way viewpoint along the South Gare Breakwater • visitors to the River Tees viewpoint along the southern riverside • visitors to the Eston Beacon within the North York Moors National Park • residents at the eastern edge of Hartlepool (Seaton Carew, Croft on Heagh) • residents at northern edge of Middlesbrough	

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		(High Clarence, Cowpen Bewley)	
3.7.8	Tables 6.36 to 6.38 Appendix A, figures 6.7.1 and 6.7.2	Visual impacts from the hydrogen pipeline(s) on the following recreational and residential receptors: • users of NCN Route 14 • users of NCN Route 65 • visitors to Teesmouth NNR • visitors to the Teesdale Way viewpoint along the South Gare Breakwater • visitors to the River Tees viewpoint along the southern riverside • visitors to the Eston Beacon within the North	The Scoping Report states that the views of the proposed hydrogen pipeline(s) from these recreational and residential receptors would be screened or experienced as a very small feature within the context of existing industrial buildings and structures and proposes to scope out an assessment of these matters. The ZTV in appendix A, figure 6.7.1 shows that the location of the hydrogen pipeline(s) would be visible to these receptors within the study area. The Inspectorate considers that construction and decommissioning activities would be visible to these receptors and the ES should assess potential effects on views and visual amenity within the ZTV where significant effects are likely to occur. The ES should assess the visual impacts on these receptors during construction and decommissioning or provide evidence demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		York Moors National Park • residents at the eastern edge of Hartlepool (Seaton Carew, Croft on Heagh)	
3.7.9	Tables 6.36 to 6.38	Visual impacts from the operation of the hydrogen pipeline(s) on the following recreational receptors: • users of King Charles III England Coast Path • visitors to Saltholme Nature Reserve	The Scoping Report states that the views of the proposed hydrogen pipeline(s) from these recreational receptors during operation would be screened or experienced as a very small feature within the context of existing industrial buildings and structures and proposes to scope out an assessment of these matters. The Inspectorate has considered the nature and location of the hydrogen pipeline(s) and the characteristics of the surrounding area and is content that impacts to these receptors during operation are unlikely to lead to significant effects. The Inspectorate agrees that these matters can be scoped out of further assessment.

ID	Ref	Description	Inspectorate's comments
3.7.10	Paragraphs 6.7.6 and 6.7.7	Study area	The Scoping Report states that a study area of 2km will be used to inform the landscape and visual impact assessment (LVIA) in the ES. The ZTV mapping (figure 6.7.2) shows that there is potential for intervisibility between the proposed development beyond the 10km search area that has been used to inform the Scoping Report.

ID	Ref	Description	Inspectorate's comments
	Appendix A, figure 6.7.2		The Inspectorate considers that the study area and ZTV should represent the extent of the likely impacts from all elements and phases of the proposed development. The applicant should make efforts to agree the extent of the study area and methodology for the ZTV with relevant consultation bodies including local authorities.
3.7.11	Paragraph 6.7.12 Appendix A, figure 6.7.3	Landscape character	Appendix A, figure 6.7.3 illustrates the location and extent of the relevant NCA and LCAs in relation to the proposed development. However, Redcar and Cleveland LCA is not shown on figure 6.7.3 and paragraph 6.7.12 of the Scoping Report states that a small part of the eastern leg of the proposed development falls within the boundaries of the Redcar and Cleveland LCA. The applicant should ensure that figure(s) provided within the ES accurately illustrate the landscape character of the site and study area.
3.7.12	Paragraph 6.7.73	Landscape mitigation	The ES should clearly describe any proposed planting and how the landscape and visual effects are expected to alter as any such planting matures.
3.7.13	Table 6.33	Viewpoints and visualisations	Table 10-2 describes the preliminary viewpoint locations used to inform the Scoping Report. The Inspectorate advises that the ES should include confirmation of the consultation undertaken, together with evidence of agreement about the final viewpoint selection. Where any disagreement remains, an explanation as to how the final selection was made should be provided taking into account the factors that are identified as relevant to viewpoint selection within the Guidelines for Landscape and Visual Impact Assessment (GLVIA3). Viewpoint locations should be identified on a plan within the ES. Baseline viewpoint photography and visualisations for summer and winter should also be provided.
3.7.14	N/A	Visual amenity receptors	It is not clear if users of waterways have been identified as visual receptors in the assessment. The ES should either assess effects on users of the waterways, such as the River Tees and the Tees Estuary, or provide a justification as to why they would not experience significant effects. Efforts should be made to agree the location of appropriate waterways visual receptors with the local authorities.

ID	Ref	Description	Inspectorate's comments
3.7.15	N/A	Lighting	Impacts on landscape and visual amenity resulting from the introduction of lighting should be assessed in the ES. Any proposed mitigation measures should be described and appropriately secured. The assessment should cross refer to other relevant aspect assessments and sensitive receptors (such as ecology and cultural heritage). The ES should also consider the use of night-time visualisations.

3.8 Marine Biodiversity

(Scoping Report Section 6.8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.8.1	Paragraph 6.8.57 Table 6.41	Spread of INNS from wastewater connection corridor outfall – construction and decommissioning	The Scoping Report proposes to scope out this matter on the basis that there are no records of marine INNS within the proposed River Tees crossing area or wastewater connection corridor outfall. The applicant's attention is directed to the consultation response from the EA on this matter (appendix 2 of this Opinion). In their response, the EA advise that there are records of marine INNS, such as *Austrominius modestus* and *Petricolaria pholadiformis*, within the 2km ZoI for the marine biodiversity assessment. The Inspectorate considers that the ES should assess the impacts from the spread of INNS or provide evidence demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects. Any relevant mitigation measures should be recorded in the framework CEMP and DEMP.
3.8.2	Paragraph 6.8.74 Table 6.41	Sedimentation from River Tees crossing and wastewater connection corridor outfall – construction and decommissioning	The applicant proposes to scope out this matter on the basis that any potential impacts would be localised to the areas surrounding the River Tees crossing tunnel entrance and outfall location into Greatham Creek and the likelihood of sedimentation would be reduced via the implementation of measures included in the CEMP. The applicant's attention is directed to the consultation response from the Marine Management Organisation (MMO) on this matter (appendix 2 of this Opinion). In its response, the MMO states that there is potential for sediment run off to be contaminated and advise that an assessment of sediment runoff should be included in the ES. The Inspectorate considers that the ES should assess the impacts from the sedimentation during construction and decommissioning or provide evidence demonstrating agreement with the relevant consultation bodies, such as the MMO, and

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			the absence of likely significant effects. Any relevant mitigation measures should be recorded in the framework CEMP and DEMP.
3.8.3	Paragraphs 6.8.80 to 6.8.81 and 6.8.85 Table 6.41 Table 8.1	Effects of underwater noise and vibration from River Tees crossing – construction and decommissioning	This matter is proposed to be scoped out on the basis that the risk of any underwater noise transference to receptors within the River Tees from construction and decommissioning works related to the River Tees crossing are not anticipated. In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies, the Inspectorate is not in a position to agree to scope this matter from the assessment. Accordingly, the ES should include an assessment of this matter or the information referred to demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects The ES should also consider the potential for noise and vibration impacts on migratory and/ or protected fish from drilling activities during construction or decommissioning. The applicant's attention is drawn to the EA's consultation response on this point (appendix 2 of this Opinion). Cross reference to the noise and vibration ES chapter should be provided where relevant.
3.8.4	Table 6.41	Direct loss and physical disturbance to marine habitats and species from River Tees crossing − construction and decommissioning	The Scoping Report proposes to scope out this matter stating that there are no in-river works proposed as part of the dewatering or pipeline installation within existing tunnels or alternative crossing options that could result in the loss or physical disturbance to marine habitats and species The Inspectorate is not in a position to agree to scope this matter from the assessment at this stage. As such, the ES should include an assessment of this matter or demonstrate agreement with the relevant consultation bodies, such as MMO, and the absence of likely significant effects. The applicant's attention is directed to the consultation response from the MMO on this matter (appendix 2 of this Opinion).

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.8.5	Table 6.41	Change in water quality affecting marine habitats and species from River Tees crossing – decommissioning	The Scoping Report states that changes to water quality in the area around the River Tees crossing would be addressed via a commitment within the DEMP and proposes to scope out this matter from further assessment. The Inspectorate does not have sufficient justification to agree to scope this matter out at this stage. An assessment should be provided, or the ES should otherwise explain, with evidence of agreement from relevant consultation bodies, why significant effects are not likely to occur.
3.8.6	Table 6.41 Table 8.1	Change in water quality affecting marine habitats and species from River Tees crossing – operation	The Scoping Report proposes to scope out this matter stating that once operational the existing tunnels and/ or installed pipeline would be a fully enclosed system which would not interact with the marine environment and any routine planned maintenance works are not expected to lead to water pollution. The Inspectorate does not have sufficient justification to agree to scope this matter out at this stage. An assessment should be provided, or the ES should otherwise explain, with evidence of agreement from relevant consultation bodies, why significant effects are not likely to occur, for example from an unexpected or emergency leak from the pipeline.
3.8.7	Table 6.41 Table 8.1	The following impacts to marine biodiversity during operation of the River Tees crossing: • effects of underwater noise and vibration • direct loss and physical disturbance to	The Scoping Report proposes to scope out these matters stating that once operational the existing tunnels and/ or installed pipeline would be a fully enclosed system which does not interact with the marine environment. Moreover, routine planned maintenance works are not expected to lead to sedimentation or generate noise or vibration that would exceed background levels. On this basis, the Inspectorate agrees that this matter can be scoped out of further assessment.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		marine habitats and species	
3.8.8	Paragraphs 6.8.89 and 6.8.90 Table 6.41	Loss of foraging resource for bird species from wastewater connection corridor outfall – construction and decommissioning	The Scoping Report states that given the minor scale of outfall works and relative abundance of alternative suitable foraging habitat within the wider area, including within the remainder of Teesmouth NNR, impacts during construction and decommissioning are unlikely to lead to significant effects and proposes to scope this matter out. The Inspectorate does not have sufficient justification to agree to scope this matter out at this stage. An assessment should be provided, or the ES should otherwise explain, with evidence of agreement from relevant consultation bodies, why significant effects on foraging resources for bird species are not likely to occur during construction and decommissioning of the wastewater connection corridor. Clear cross referencing should be provided to the biodiversity ES chapter.
3.8.9	Paragraphs 6.8.96 and 6.8.97 Table 6.41	The following impacts to marine biodiversity during operation of the wastewater connection corridor outfall: • injury or disturbance as a result of underwater noise and vibration • direct loss and physical disturbance to marine habitats and species	The Inspectorate agrees that operation of the wastewater connection corridor outfall is unlikely to lead to significant underwater noise or vibration effects or direct loss or physical disturbance to marine habitats and species and agrees to scope these matters out of further assessment.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.8.10	Paragraphs 6.8.98 and 6.8.99 Table 6.41	Change in water quality affecting marine habitats and species from wastewater connection corridor outfall – operation	The applicant proposes to scope out this matter on the basis that permanent discharge associated with the wastewater connection corridor outfall will meet legal standards for wastewater discharge. However, the Scoping Report states that maintenance works at the wastewater connection corridor outfall have the potential to present some risks to marine ecological receptors, including benthic habitat disturbance, sediment resuspension, contaminant release, noise pollution, alteration of hydrodynamics, and the introduction of INNS. The Scoping Report states that these are 'worst-case scenario' assumptions and the extent of any impacts would be limited to the specific area of the marine environment being worked in and any potential impacts would be temporary, localised, and short-term. The Inspectorate considers that the ES should assess the impacts to marine habitats and species from change in water quality during operation of the wastewater connection corridor outfall or provide evidence demonstrating agreement with the relevant consultation bodies and the absence of likely significant effects. The Inspectorate advises that any mitigation measures for likely significant effects on marine ecological receptors from maintenance work should be clearly set out in the ES and secured through the dDCO.

ID	Ref	Description	Inspectorate's comments
3.8.11	Paragraph 6.8.50	Ecological surveys	The applicant should ensure that the ES is informed by appropriate surveys to determine the presence and absence of protected and notable species, including marine mammals, migratory and non-migratory fish and intertidal and benthic species. The ES should ensure the marine biodiversity baseline is robust and justify the extent and scale of surveys undertaken. The applicant should seek agreement from relevant consultation bodies on the scale and extent of any surveys undertaken, evidence of which should be provided within the DCO application.

ID	Ref	Description	Inspectorate's comments
3.8.12	Paragraph 6.8.54 and 6.8.57	Baseline information	The Scoping Report states that the National Biodiversity Network (NBN) Atlas contains no records of any species within the locations of the proposed River Tees crossing or wastewater connection corridor outfall. Furthermore, paragraph 6.8.57 states that no records of marine INNS were present within the 2km marine biodiversity study area after a review of NBN Atlas. However, in their consultation response (appendix 2 of this Opinion), the EA state that the NBN Atlas contains "*numerous records of benthic species*" and refers to records of marine INNS within 2km of the proposed development. The applicant should ensure that the ES baseline data is supported by up to date and robust information on marine species.
3.8.13	Paragraphs 6.8.83 to 6.8.84	Impacts on European eel – construction	The ES should consider the risk of various excavation methods on European eel species during construction and how any likely significant effects would be mitigated for. The applicant's attention is drawn to the consultation response from the EA on this matter (appendix 2 of this Opinion).
3.8.14	N/A	Biodiversity net gain (BNG)	The ES should assess watercourse habitats under BNG, to demonstrate a positive impact on watercourses using the watercourse metric to calculate baseline habitat scores. The applicant's attention is drawn to the consultation response of the EA on this matter (appendix 2 of this Opinion).

3.9 Material Assets and Waste

(Scoping Report Section 6.9)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.9.1	Paragraph 6.9.47 Table 6.50	Material assets and waste – decommissioning	The Scoping Report proposes to scope this matter out on the basis that it would be difficult to forecast decommissioning requirements due to the design life of the proposed development and a DEMP would be developed and agreed with the EA as part of the environmental permit for the site. The ES should provide estimates of the type and quantity of waste at the point of decommissioning and address the likely significant effects from waste at decommissioning to the extent possible at this time, including consideration of any measures to ensure that component waste will avoid entering the waste chain. Where uncertainty exists regarding the likely waste streams at the point of decommissioning a worst-case scenario should be assumed.
3.9.2	Table 6.50	Material and waste generation from hydrogen pipeline(s) – operation	The Inspectorate agrees that on the basis that additional material and waste would not be generated by the hydrogen pipeline(s) during operation this matter can be scoped out of further assessment.

ID	Ref	Description	Inspectorate's comments
3.9.3	N/A	N/A	N/A

3.10 Major Accidents and Disasters

(Scoping Report Section 6.10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.10.1	Paragraph 6.10.27 Appendix J, Table J.1	General construction hazards including utility strike/ unexploded ordnance (UXO)	The Scoping Report states that a UXO desk study and risk assessment was conducted for areas covered by phase 1 of the HPF and identified a potential risk for unexploded bombs (UXB) from World War II. A phase 2 ground investigation (GI) was also conducted and included an assessment for UXO risk and a watching brief. Table J.1 states that the UXO desk-based assessment will be updated as an appendix to the ES chapter on ground conditions and this will consider all relevant risk areas of the proposed development. Table J.1 states that measures to control UXO risk are already in place and this does not require duplicate assessment in the major accidents and disasters chapter of the ES. The Inspectorate is content for a desk-based assessment to be updated as part of the ground conditions ES chapter provided that an assessment of relevant risk areas, including UXO, is made in the ES and any necessary mitigation measures for likely significant effects are secured through the dDCO and supporting documents.
3.10.2	Paragraph 6.10.27 Appendix J, Table J.1	Release of ground contamination during construction phase	The Scoping Report states that the risk of disturbing existing contaminated ground will be assessed in the ground conditions ES chapter. Any mitigation measures that are considered necessary will be described in that ES chapter and included in the framework CEMP that accompanies the application. The Scoping Report states that no further consideration of risk of major accidents and disasters is therefore required as this would duplicate the assessment. The Inspectorate agrees that this matter can be scoped out of the major accidents and disasters ES chapter and considered through the assessment of ground conditions.
3.10.3	Paragraph 6.10.27	The following major flood events:	The Scoping Report states that the design of the proposed development will consider all sources of flood risk and a Flood Risk Assessment (FRA) will be prepared to accompany

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
	Appendix J, Table J.1	• flooding (fluvial, coastal, pluvial, sewer, groundwater) • flooding (breach of reservoirs) • flood defence failure	the DCO application. The FRA will consider relevant climate change scenarios, as agreed with the EA. On this basis, the applicant does not consider that further assessment of flooding as a major accident and disaster is therefore required in the major accidents and disasters ES chapter as this would duplicate the assessment provided in the FRA. The Inspectorate agrees that this matter can be scoped out of the major accidents and disasters ES chapter and considered through the FRA. However, in the event that likely significant effects are identified this matter should be considered and assessed in the ES as relevant.
3.10.4	Paragraph 6.10.27 Appendix J, Table J.1	Storm surges	The Scoping Report considers that the risk of major accidents and disasters from storm surges will be appropriately assessed within the water environment and climate change resilience chapters of the ES and further assessment within the major accidents and disaster ES chapter is not required. The Inspectorate agrees that this matter can be scoped out of the major accidents and disaster ES chapter on this basis.
3.10.5	Paragraph 6.10.27 Appendix J, Table J.1	Air quality events	The Scoping Report states that air quality effects will be assessed within the air quality chapter of the ES and no further consideration of risks of major accidents and disasters is therefore required as this would be a duplicate assessment. On this basis, the Inspectorate agrees that air quality events can be scoped out of the major accidents and disaster ES chapter.
3.10.6	Paragraph 6.10.27 Appendix J, Table J.1	Maritime disasters	The Scoping Report states that the proposed development would not interfere with, or otherwise impact, the ongoing use of the river or local ports and considers that no maritime risk from a major accidents and disasters perspective is therefore likely. The Inspectorate is content for this matter to be scoped out of further assessment provided that the ES includes evidence of agreement with the relevant consultation bodies, including the Maritime and Coastguard Agency (MCA), and absence of likely significant effects. As the pipeline installation includes crossing of the River Tees, the

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			Statutory Harbour Authority (SHA) should also be consulted on the assessment of risk associated with navigational matters and safety within the SHA waters. The applicant's attention is drawn to the consultation response from the MCA on this matter (appendix 2 of this Opinion).
3.10.7	Paragraph 6.10.27 Appendix J, Table J.1	Operational process hazards – pollution of watercourses	The Inspectorate agrees that this matter can be scoped out of the major accidents and disasters ES chapter and assessed within the water environment ES chapter.
3.10.8	Paragraph 6.10.27 Appendix J, Table J.1	The following utilities failure: • electricity and gas • water, effluent and sewage	The Inspectorate agrees that these matters can be scoped out of further assessment. However, the ES should provide information about how risks from failure of systems would be managed, including the design standards proposed to be used and why these are considered to be appropriate, together with an outline of any management plans proposed to demonstrate that likely significant effects can be excluded.
3.10.9	Paragraph 6.10.27 Appendix J, Table J.1	The following meteorological hazards: • high windspeed • low (sub-zero) temperatures • heatwaves • droughts • lightning strikes	The Scoping Report seeks to scope out impacts from high windspeed, low temperatures, high temperatures/ heatwaves, drought and lightning on the basis that such impacts would be managed through engineering design. The Inspectorate does not have sufficient evidence about the engineering design to exclude the possibility of significant effects from vulnerability to meteorological hazards. The Inspectorate is not in a position to agree to scope these matters out from the assessment. The ES should include an assessment of these matters or information demonstrating agreement with the relevant consultation bodies and the absence of a likely significant effects. The Inspectorate advises that cross referencing should be made to assessments in other ES aspect chapters (eg climate change) to avoid duplication of effort.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.10.10	Paragraph 6.10.27 Appendix J, Table J.1	The following major events: • ground stability • earthquakes • volcanic eruptions • fog • wildfires • road accidents • rail accidents • aircraft disasters • space disasters – Impact events and airburst • solar flare • bridge collapse or failure • tunnel collapse or failure • dam failure • mast and tower collapse	Based on the justification and evidence presented in the Scoping Report, the Inspectorate is content that risks to or from the proposed development for these matters are not likely to result in significant effects from major accidents and disasters and agrees that these matters can be scoped out of further assessment.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		• Building failure • societal hazards – malicious attacks • decommissioning activities	

ID	Ref	Description	Inspectorate's comments
3.10.11	Paragraphs 6.10.5 to 6.10.6	Consultation	The ES should provide evidence of any consultation with relevant consultation bodies including the Health and Safety Executive (HSE) and set out how this consultation has influenced the scope and assessment methodology.
3.10.12	Paragraphs 6.10.8 to 6.10.9	Study area – consultation on major accident/ hazard pipelines	The proposed development site is located within the consultation zones of several major accident hazard sites and pipelines. The applicant should consult on potential significant effects relating to the proposed development with respect to these sites and pipelines with the relevant consultation bodies and any mitigation that may be required. The applicant's attention is directed to the advice of the HSE and National Gas in their consultation responses in appendix 2 of this Opinion. The HSE has identified potential major hazard sites and pipelines that should be considered. The applicant should make use of appropriate guidance (eg the advice referenced in the HSE's Annex to the Inspectorate's Advice Note 11) to better understand the likelihood of an occurrence and the proposed development's vulnerability to potential major accidents and disasters. The HSE should be consulted in line with the Inspectorate's Advice Note 11, annex G.
3.10.13	Paragraphs 6.10.28 to 6.10.32	Mitigation measures	The ES should include a clear description of mitigation measures required and how they will be secured, including whether this is through other consents and licences in addition to the DCO. A summary of the other consents and licences required to regulate the

ID	Ref	Description	Inspectorate's comments
			proposed development, the aspects that they cover, and application status, should be included in the ES.
3.10.14	Section 5.2	Cumulative assessment	The major accidents and disasters assessment should consider the potential for cumulative effects between projects and between aspects within the proposed development. Relevant projects included in the assessment should be agreed with relevant consultation bodies, including HSE and local authorities.

3.11 Noise and Vibration

(Scoping Report Section 6.11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.11.1	Table 6.57	Construction traffic vibration	The applicant proposes to scope out an assessment of vibration generated by construction traffic on the local road network. The Inspectorate agrees that construction vehicles are unlikely to lead to significant vibration effects and is content for this matter to be scoped out of further assessment.
3.11.2	Table 6.57	Operational vibration	The Inspectorate is content that based on the nature and location of the proposed development, impacts from operational vibration are not likely to result in significant effects and this matter can be scoped out of further assessment.
3.11.3	Paragraphs 6.11.28 and 6.11.29 Table 6.57	Operational road traffic noise	The Scoping Report seeks to scope out effects from operational road traffic noise on the basis that the operation of the proposed development is unlikely to result in a considerable increase in traffic flows or change to noise emissions from existing roads. Paragraph 6.11.28 of the Scoping Report states that following construction of phase 2 of the proposed development, the operational workforce could increase by 50 to 70 personnel (a total of 130 to 150 staff on-site including the existing CATS Terminal operational workforce of approximately 80 personnel). Furthermore, during planned maintenance periods, it is predicted that there could be up to 200 additional temporary personnel on-site; however, this is expected to be a short term requirement of approximately 28 days every four years. Heavy Goods Vehicle (HGV) movements associated with the delivery of consumables and removal of waste products are also anticipated during operation of the proposed development. However, the number of HGV movements required during operation or planned maintenance periods have not been quantified in the Scoping Report. The Inspectorate recognises that significant effects on road traffic noise receptors are unlikely during operation. However, further information on the predicted number of HGV

			movements during operation, including planned maintenance periods, should be provided in the ES. The Inspectorate considers that providing this information is included in the ES and given the estimated numbers of operational personnel, this matter can be scoped out of further assessment.

ID	Ref	Description	Inspectorate's comments
3.11.4	Paragraph 6.11.12	Indirect construction traffic noise impacts	The Scoping Report states that an assessment of indirect noise impacts will be undertaken as part of the ES. The Inspectorate welcomes the assessment of indirect construction traffic noise effects along all affected roads on the surrounding network. The ES should include a plan to identify the affected roads that have been included in the assessment of indirect effects.
3.11.5	Paragraph 6.11.39	Figures	For the avoidance of doubt, the ES should provide figure(s) displaying the location of noise monitoring in relation to any noise sensitive receptors.

3.12 Socio-economics

(Scoping Report Section 6.12)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.12.1	Table 6.68	Impact on population structure due to increased demand for labour	The Scoping Report proposes to scope out this matter stating that the increased demand for labour during construction, operation and decommissioning of the proposed development would be temporary and not lead to a significant increase in the population or changes to the demographic structure. Considering that peak construction employment is expected to be 550 staff and operation would lead to a maximum increase in 70 permanent staff, the Inspectorate considers that the proposed development is unlikely to have significant effects on population structure and agrees that this matter can be scoped out of further assessment.
3.12.2	Table 6.68	Impact on the demand for housing, accommodation, and local services – operation	The applicant proposes to scope out this matter on the basis that operation of the proposed development would not lead to a substantial increase in the demand for housing, accommodation and local services. The Inspectorate considers that the proposed development is unlikely to have significant effects on the demand for housing, accommodation, and local services during operation and agrees that this matter can be scoped out of further assessment.
3.12.3	Table 6.68	Impact on the demand for housing, accommodation, and local services – decommissioning	The Scoping Report proposes to scope out this matter on the basis that decommissioning is expected to require a smaller workforce than construction and would not lead to significant effects on the demand for housing, accommodation and local services. The Inspectorate agrees that decommissioning of the proposed development is unlikely to have significant effects on the demand for housing, accommodation, and local services and is content for this matter can be scoped out of further assessment. For the avoidance of doubt, the ES should provide an assessment of the impacts on the demand for housing, accommodation, and local services during construction.

3.12.4	Table 6.68	Impact on tourism economy	The Scoping Report states that given the nature of the current site and surrounding area as well as the distance from notable tourism assets, changes to the number and overall expenditure by visitors to the local area during construction, operation and decommissioning on the proposed development is unlikely to be significant and the applicant proposes to scope out this matter. The Inspectorate considers that in the context of the surrounding area, the proposed development would not significantly detract from tourism assets and agrees that this matter can be scoped out of further assessment.

ID	Ref	Description	Inspectorate's comments
3.12.5	N/A	Crime and safety	No reference is made to crime and safety in the Scoping Report. The ES should set out whether the characteristics of the proposed development are likely to have any significant effects on crime and safety and provide justification if it is proposed to scope this matter out. The ES should explain how any required security measures are secured.

3.13 Traffic and Transportation

(Scoping Report Section 6.13)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.13.1	Paragraph 6.13.42 Table 6.81	Operational traffic	The applicant proposes to scope out a detailed assessment of operational road traffic, stating that the operational movements are unlikely to exceed the IEMA Guidance screening criteria. Paragraph 3.2.41 states that operation of the proposed development would result in an estimated 140 additional staff vehicle movements over a 24-hour period. The Scoping Report states that a qualitative statement regarding operational traffic is proposed to be included within a transport assessment (TA) and the approach to assessing operation traffic is to be agreed with the relevant highway authorities. The Inspectorate notes that during planned maintenance periods (approximately 28 days every four years), it is predicted that there could be up to 200 additional temporary personnel on-site. The additional traffic required during the planned maintenance period should also be taken into account within the TA. The Inspectorate considers that provided the operational traffic movements (including any additional movements required during planned maintenance) do not exceed the IEMA screening criteria, the proposed development is not likely to result in significant effects and agrees that an assessment of this matter can be scoped out of the ES. The ES description of development should include confirmation of the number and type of all operational vehicle movements (ie HGVs in addition to staff, including during any planned maintenance periods).
3.13.2	Table 6.81	Decommissioning traffic	The Scoping Report seeks to scope out a detailed assessment of decommissioning road traffic on the basis that traffic volumes are predicted to be notably less than that of construction and any effects would not be beyond those assessed for the construction phase. As noted in paragraph 6.1.3.44 decommissioning traffic volume is uncertain at this stage. A maximum of 1,100 two-way daily vehicle movements are expected during the construction phase.

			In the absence of the predicted decommissioning traffic volumes or agreement with relevant consultation bodies, the Inspectorate considers that there is potential for likely significant effects to occur during the decommissioning phase and does not agree this matter can be scoped out. Accordingly, the ES should include an assessment of this matter based on the predicted worst case scenario or provide evidence demonstrating agreement with the relevant consultation bodies and the absence of a likely significant effects. Where likely significant effects are predicted to occur these should be described and assessed in the ES to the extent possible at the time of application submission.

ID	Ref	Description	Inspectorate's comments
3.13.3	Paragraph 6.13.41	Public Rights of Way (PRoW)	The Scoping Report notes that the proposed development is likely to impact on users of PRoW, including from temporary or permanent diversions. The ES should include an assessment of the impacts to users of PRoW during construction which are likely to result in significant effects. Any such assessment should be supported by pedestrian/ user counts where necessary and possible (if adequate usage data cannot be obtained from the LPA), with efforts made to agree the locations for such counts with relevant consultation bodies. Where relevant, the ES should assess potential interactions between aspect assessments (for example traffic and transport, noise, air quality, socio-economics and visual amenity). The locations of any diversions or closures should be illustrated on suitable figures in the ES.
3.13.4	Paragraph 6.13.24	Waterborne transport	The Scoping Report states that waterborne transport is being considered for the delivery of plant during construction. Paragraph 6.13.24 states that the current preferred marine offloading area is the existing quay at the Wilton Engineering site; however, consideration will be given to the alternative ports or marine off-loading facilities. The ES should include an assessment of the likely significant effects arising from transportation of abnormal indivisible loads (AIL) via each proposed transportation method and identify any mitigation measures required and how these would be secured.
3.13.5	N/A	Hazardous loads	The ES should include an assessment of likely significant effects arising from the transportation of hazardous loads during construction and operation of the proposed

			development, and identify any mitigation required (including drainage systems) and how this would be secured through the dDCO.

3.14 Water Environment

(Scoping Report Section 6.14)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.14.1	Paragraph 6.14.58 Table 6.89	Changes to groundwater quality from the HPF and hydrogen pipeline(s) – operation	The applicant proposes to scope out this matter on the basis that there are no direct impact pathways between the proposed development and groundwater receptors once it has been constructed. The Inspectorate agrees that operation of the HPF and hydrogen pipeline(s) are unlikely to result in significant changes to groundwater quality and is content for this matter to be scoped out of further assessment.
3.14.2	Paragraph 6.14.58 Table 6.89	Groundwater flooding from the hydrogen pipeline(s) – operation	The Scoping Report states that groundwater flooding is not considered to be an impact for the hydrogen pipeline(s) during operation and proposes to scope out this matter from further assessment. The Inspectorate notes that an assessment of the changes to groundwater quantity during operation has been scoped in on the basis that excavations associated with the hydrogen pipeline(s) or associated HDD/ MBT crossings could result in permanent changes to the natural groundwater regime. The Inspectorate considers that changes to the natural groundwater regime, such as permanent effects on the water table, have potential to increase the risk of groundwater flooding. Therefore, an assessment of this matter should be provided, or the ES should otherwise explain, with evidence of agreement from relevant consultation bodies, the absence of likely significant effects. Clear cross reference should be made to the FRA.

ID	Ref	Description	Inspectorate's comments
3.14.3	Paragraphs 6.14.61 to 6.14.63	Mitigation	Construction effects are likely to be mitigated through the implementation of standard construction techniques and mitigation measures. Cross reference should be made as appropriate to relevant mitigation measures contained in the framework CEMP.

3.14.4	N/A	Effluent streams and discharges	The ES should clearly describe the effluent streams and discharges associated with construction and operation of the proposed development and any permits required/ implications for existing permits. Efforts should be made to agree the scope and methodology of assessment work, including water quality modelling, in respect of any effluent streams and other discharges to water with relevant consultation bodies.
3.14.5	N/A	Supporting assessments	The Inspectorate notes that an FRA, WFD assessment and nutrient neutrality assessment will be prepared to support the DCO application. Information from these assessments should be used to inform preparation of the ES.
3.14.6	N/A	Flood zones	The Scoping Report identifies flood zones across the study area; however, does not include sub-categories, such as an area of high probability (flood zone 3a) or functional floodplain (flood zone 3b). The ES should provide an accurate and consistent description of the baseline flood risk for each element of the proposed development and the description should clearly distinguish between flood zones, including flood zones 3a and 3b where relevant.
3.14.7	N/A	Thermal impacts to groundwater	The applicant's attention is drawn to the EA's consultation response (appendix 2 of this Opinion). The ES should consider the potential for proposed below ground infrastructure to result in thermal impacts on groundwater receptors.

3.15 Aspects to be Scoped Out

(Scoping Report Section 7)

ID	Ref	Applicant's proposed aspects to scope out	Inspectorate's comments
3.15.1	Section 7.1	Human health – environmental impacts	A standalone human health ES chapter is proposed to be scoped out on the basis that the proposed development is unlikely to result in impacts to the health outcomes at the population level. Effects on wellbeing and quality of life from economic and employment opportunities are proposed to be considered in the socio-economics ES chapter. The Inspectorate is content that human health does not need to be assessed as a standalone ES aspect chapter. However, human health and wellbeing (for example, health effects arising from impacts to environmental amenity and environment determinants of health) should be considered within relevant ES chapters including noise and vibration, air quality, landscape and visual amenity, traffic and transport, ground conditions and the water environment. To ensure that relevant information can be easily located, the Inspectorate recommends that the EIA methodology ES chapter provides clear cross referencing to where the relevant impacts on human health are considered. The assessment should be informed by relevant guidance such as the IEMA 2022 guidance 'Determining Significance for Human Health In Environmental Impact Assessment'.
3.15.2	Section 7.1	Human health – traffic	The Scoping Report proposes to scope out human health effects related to increased traffic flows stating that the industrial location of the proposed development and proximity to the A-road network will reduce the disruption and nuisance to communities and impacts to population health and wellbeing. The Inspectorate agrees that this matter can be scoped out further assessment; however, the ES should describe any relevant embedded mitigation measures relevant to traffic flows and explain how such measures are secured through the dDCO or other legal mechanism.

3.15.3	Section 7.1	Human health – greenspace and physical activity	The applicant proposes to scope out this matter on the basis that the proposed development would not result in a material reduction in access to greenspace and opportunities for physical activity at a population level. Having considered the nature and context of the proposed development, the Inspectorate agrees that this matter to be scoped out of further assessment.
3.15.4	Section 7.1	Human health – access and connectivity	The Scoping Report states that impacts to access and connectivity are unlikely to result in significant health effects and proposes to scope out this matter from further assessment. Having considered the nature and context of the proposed development and provided impacts on the local road and PRoW network are assessed within the traffic and transport ES chapter, the Inspectorate is content for this matter to be scoped out of further assessment.

ID	Ref	Description	Inspectorate's comments
3.15.5	N/A	N/A	N/A

APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

TABLE A1: PRESCRIBED CONSULTATION BODIES

Bodies prescribed in schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (the 'APFP Regulations (as amended)')

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Secretary of State for Defence	Ministry of Defence
The relevant parish council(s)	Greatham Parish Council
	Wynyard Parish Council
	Nunthorpe Parish Council
	Billingham Town Council
	Saltburn, Marske, New Marske Parish Council
	Guisborough Town Council
	Wolviston Parish Council
	Grindon and Thorpe Thewles Parish Council
The Environment Agency	Environment Agency
Natural England	Natural England
The Forestry Commission	Forestry Commission - Yorkshire and North East
The Historic Buildings and Monuments Commission for England (known as Historic England)	Historic England
The Maritime and Coastguard Agency	Maritime and Coastguard Agency
The Maritime and Coastguard Agency - Regional Office	Maritime and Coastguard Agency - Hull (Beverley) Marine Office

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Canal and River Trust	The Canal and River Trust
Trinity House	Trinity House
The relevant Highways Authority	Redcar and Cleveland Borough Council
	Hartlepool Borough Council
	National Highways
The Health and Safety Executive	Health and Safety Executive
United Kingdom Health SecurityAgency, an executive agency of the Department of Health and Social Care	United Kingdom Health Security Agency
NHS England	NHS England
The Coal Authority	Mining Remediation Authority
The Crown Estate Commissioners	The Crown Estate
The relevant police authority	Cleveland Police and Crime Commissioner
	Durham Police and Crime Commissioner
	York and North Yorkshire Office for Policing, Fire, Crime and Commissioning
The relevant ambulance service	North East Ambulance Service
	Yorkshire Ambulance Service
The relevant fire and rescue authority	County Durham and Darlington Fire and Rescue Service
	North Yorkshire Fire and Rescue Service
	Cleveland Fire Brigade

TABLE A2: RELEVANT STATUTORY UNDERTAKERS

'Statutory undertaker' is defined in The APFP Regulations (as amended) as having the same meaning as in section 127 of the Planning Act 2008 (PA2008)

STATUTORY UNDERTAKER	ORGANISATION
The relevant Integrated Care Board	NHS North East and North Cumbria Integrated Care Board
The relevant Integrated Care Board	NHS Humber and North Yorkshire Integrated Care Board
NHS England	NHS England
The relevant NHS Trust	Yorkshire Ambulance Service NHS Trust
The relevant NHS Foundation Trust	North East Ambulance Service NHS Foundation Trust
Railways	Network Rail Infrastructure Ltd
	National Highways Historical Railways Estate
Canal Or Inland Navigation Authorities	Canal and River Trust
Dock and Harbour authority	PD Ports
Universal Service Provider	Royal Mail Group
Homes and Communities Agency	Homes England
The relevant Environment Agency	Environment Agency
The relevant water and sewage undertaker	Anglian Water
	Hartlepool Water (Anglian Water)
	Northumbrian Water
The relevant public gas transporter	Cadent Gas Limited
	Northern Gas Networks Limited
	Scotland Gas Networks Plc

STATUTORY UNDERTAKER	ORGANISATION
	Southern Gas Networks Plc
	CNG Services Ltd
	Energy Assets Pipelines Limited
	ES Pipelines Ltd
	ESP Connections Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	Fulcrum Pipelines Limited
	GTC Pipelines Limited
	Harlaxton Gas Networks Limited
	Independent Pipelines Limited
	Indigo Pipelines Limited
	Inovyn Enterprises Ltd
	Last Mile Gas Ltd
	Leep Gas Networks Limited
	Mua Gas Limited
	Quadrant Pipelines Limited
	Stark Works
	National Gas
The relevant electricity generator with CPO Powers	MGT Teesside Limited
	SSE Renewables Wind Farms (UK) Limited
The relevant electricity distributor with CPO Powers	Northern Powergrid (Northeast) Limited
	Northern Powergrid (Yorkshire) plc
	Advanced Electricity Networks Ltd

STATUTORY UNDERTAKER	ORGANISATION
	Aidien Ltd
	Aurora Utilities Ltd
	Eclipse Power Network Limited
	Energy Assets Networks Limited
	ESP Electricity Limited
	Fulcrum Electricity Assets Limited
	Green Generation Energy Networks Cymru Ltd
	Harlaxton Energy Networks Limited
	Independent Distribution Connection Specialists Ltd
	Independent Power Networks Limited
	Indigo Power Limited
	Last Mile Electricity Ltd
	Leep Electricity Networks Limited
	Mua Electricity Limited
	Optimal Power Networks Limited
	Stark Infra-Electricity Ltd
	The Electricity Network Company Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Vattenfall Networks Limited
The relevant electricity transmitter with CPO Powers	National Grid Electricity Transmission Plc
	National Grid Electricity System Operation Limited

TABLE A3: LOCAL AUTHORITIES AS DEFINED IN SECTION 43(3) OF THE PA2008

LOCAL AUTHORITY
North York Moors National Park
North Yorkshire Council
Durham County Council
Darlington Borough Council
Hartlepool Borough Council
Middlesbrough Borough Council
Redcar and Cleveland Borough Council
Stockton-on-Tees Borough Council

TABLE A5: THE MARINE MANAGEMENT ORGANISATION

Section 42(1)(a) of the PA2008 requires consultation with the Marine Management Organisation in any case where the proposed development would affect, or would be likely to affect, any of the areas specified in subsection 42(2).

ORGANISATION
Marine Management Organisation

TABLE A6:: NON-PRESCRIBED CONSULTATION BODIES

ORGANISATION
Tees Valley Combined Authority
North East Combined Authority
Middlesbrough Development Corporation
Royal National Lifeboat Institution

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:
Anglian Water
Darlington Borough Council
Environment Agency
Guisborough Town Council
Hartlepool Borough Council
Health and Safety Executive
Historic England
Marine Management Organisation
Maritime and Coastguard Agency
Mining Remediation Authority
Ministry of Defence
National Gas
National Grid Electricity Transmission Plc
National Highways
Northern Gas Networks Limited
Royal Mail Group
Trinity House

Anglian Water Services
Lancaster House, Lancaster Way,
Ermine Business Park, Huntingdon,
Cambridgeshire. PE29 6XU

www.anglianwater.co.uk

Our ref: H2NorthEast/ ScopingResponse

By Email: Planning Inspectorate
h2ne@planninginspectorate.gov.uk

10th March 2025

Dear Mr. Patten,

Application by H2NorthEast Limited (the applicant) for an Order granting Development Consent for H2NorthEast (the proposed development)

Thank you for the opportunity to comment on the Environmental Impact Assessment (EIA) Scoping Report for the H2NorthEast project which is located within the administrative boundaries of Stockton-on-Tees Borough Council (SBC) and Redcar and Cleveland Borough Council (RCBC)

In relation to the project area (Figure 1.2), Anglian Water Services (AWS) is the statutory water provider for the Hartlepool area and as a wholesaler of water providing water to retailers who supply businesses on Teesside via assets.

This response is submitted on behalf of AWS in its statutory capacity as a water services supplier, however, we understand from the Scoping Report (under Section 3.2.30) that the H2NorthEast will not require a water supply from Anglian Water for construction, operation or decommissioning.

AWS works to support the construction and operation of national infrastructure projects that are conducted in accordance with the Water Industry Act 1991. We would expect the EIA to include reference to any existing infrastructure managed by AWS and the provision of replacement infrastructure and the requirements for new infrastructure.

AWS works with developers, including those constructing projects under the 2008 Planning Act, to ensure requests for alteration of sewers, wastewater and water supply infrastructure (where relevant) are planned to be undertaken with the minimum of disruption to the project and customers. We would encourage on-going engagement to ensure that AWS and the Applicant have reached agreement on the approach to assets and connections in order that these matters are not drawn out during the Examination stage.

The Scheme - existing and proposed infrastructure

Given the potential location and extent of the proposed development area, Anglian Water does below ground assets within the red line project boundary. There are water main pipes of varying

sizes which cross the red line in the vicinity of the A178 Seaton Carew Road/ Tees Road and at Seals Sand. Also, AWS has an affected easement at Sean Sands within the red line boundary.

Utilities searches are required to establish the extent of AWS's assets in within and in the vicinity of the scheme's application boundary. These should be mapped to establish interactions with assets and the scheme designed to avoid impacts upon those assets. AWS would want to ensure the location and nature of our assets serving local communities are identified and protected. To reduce the need for diversions and the associated carbon impacts of those works, ground investigations would enable the Applicant to design out these potential impacts and so also reduce the potential impact on services if construction works cause a pipe burst or damage to supporting infrastructure.

Maps of AWS's underground assets are available to view at the following link: http://www.digdat.co.uk/

For land investigation questionnaires relating to AWS's above ground assets and formal easements, you should contact AWS's estates team on: awsestates@savills.com

AWS considers that the protection of existing network assets in and near the project site and so the protection of water services can be secured through Protective Provisions. Template Protective Provisions were supplied to the project during the Pre-Application stage. Our intention is that agreement on these Provisions and other matters will be covered by the bilateral Statement of Common Ground.

Buffers will be required and will inform the construction and operation of the proposed scheme, and its layout and design, following necessary ground investigations. Suitable easements, separation distances and safe working practices will need to be agreed.

AWS requires the following standoff distances are applied for working each side of the medial line of AWS pipes. This information is taken from our Protective Provisions template which will need to be agreed with AWS for the Development Consent Order (DCO) submission.

(a) 4 metres where the diameter of the pipe is less than 250 millimetres;
(b) 5 metres where the diameter of the pipe is between 250 and 400 millimetres; and
(c) A distance to be agreed on a case-by-case basis and before the submission of the plan under sub-paragraph (1) is submitted where the diameter of the of the pipe exceeds 400 millimetres.

Management Plans

The construction environmental management plan ((CEMP) to be prepared as referenced under Sections 6.4 -6.5 of the Scoping Report, should include steps to remove the risk of damage to AWS's assets from plant and machinery (compaction and vibration during the construction phase) including haul and access roads. Further advice on minimising and then relocating (where feasible) AWS existing assets can be obtained from: connections@anglianwater.co.uk

Scheme assessment, design, mitigation and connections

Engagement and next steps

We consider AWS should be included on a list of utilities owners to be drawn up by the Applicant. AWS would welcome engagement with the Applicant throughout the forthcoming stages of the project to address and resolve issues prior to the submission of the DCO, including Protective Provisions. Experience has shown that early engagement and agreement is required between NSIP applicants and statutory undertakers during design and assessment and well before submission of the draft DCO for examination.

The preparation of a Statement of Common Ground should document key issues and the status of whether issues have been resolved or remain under discussion, which helps to reduce the Examining Authority questions for statutory undertakers and removes the possible need for changes to the project during Examination. We would recommend discussion on the following issues:

1. Impact of development on AWS's water supply assets.
2. The design of the project to minimise interaction with AWS assets/ critical infrastructure and specifically to avoid the need for mitigation works and diversions which have associated carbon costs.
3. Confirmation of the project's cumulative impacts (if any) with AWS projects.
4. The draft DCO, including draft Protective Provisions and requirements specifically to ensure AWS's services are maintained during construction.

Advice on the form and content of suitable Protective Provisions in the draft Development Consent Order should be sought. Please do not hesitate to contact [redacted]@anglianwater.co.uk on these aspects or should you require clarification on the above response or during the pre- application to decision stages of the project.

Yours sincerely,

[redacted]

[redacted]
Growth Strategy Manager – Sustainable Growth

DARLINGTON Borough Council

CHIEF EXECUTIVE'S OFFICE &
ECONOMIC GROWTH GROUP
Town Hall, Darlington DL1 5QT

H2NorthEast

By e-mail
h2ne@planninginspectorate.gov.uk

(01325) 406487
[redacted]@darlington.gov.uk
14 February 2025

Our ref: H2NE DCO
Your ref: EN0710005
Please ask for: [redacted]
Document Name: 1402251

Dear Sir/Madam

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (EIA Regulations) – Regulations 10 and 11
Application by H2NorthEast Limited (the applicant) for an Order granting Development Consent for H2NorthEast Limited (the Proposed Development)
Scoping consultation and notification of the Applicant's contact details and duty to make available information to the Applicant if requested

I write in response to your letter dated 11 February 2025 regarding the above matter.

I can confirm that the Council has reviewed the relevant submitted documents and has no comments to make at this stage.

Yours sincerely

[redacted]

[redacted]
Development Manager

creating a better place
for people and wildlife

Environment Agency

The Planning Inspectorate
[h2ne@planninginspectorate.gov.uk]

Our ref: XA/2025/100271/01
Your ref: EN0110002

Date: 11 March 2025

Dear Sir/Madam

EIA SCOPING CONSULTATION FOR H2 NORTHEAST. SEAL SANDS, TEESSIDE.

Thank you for your consultation on the Environmental Impact Assessment (EIA) Scoping Opinion for the above Nationally Significant Infrastructure Project (NSIP).

We have reviewed the H2 Northeast Project Scoping Report Volume 1: Main Text and Volume 2: Figures and Appendices.

Detailed advice on key issues is listed in the various appendices to this letter.

Appendices
Appendix A – Biodiversity
Appendix B – Groundwater Protection and Contaminated Land
Appendix C – Marine Biodiversity
Appendix D – Flood Risk and Modelling
Appendix E – Geomorphology
Appendix F – Surface Water Quality
Appendix G – Water Resources
Appendix H – Advice to Applicant

Yours faithfully

[redacted]
Planning Specialist – National Infrastructure Team
Team mailbox: NITeam@environment-agency.gov.uk

Appendix A – Biodiversity

A1 – Open cut trench methods

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 3, Table 3.1	
Issue	Open cut trench method will be used when installing pipelines.
Impact	Compounds and trenches associated with installation present a risk of entrapment of mammals such as otter.
Solution	Cover-over open trenches to prevent wildlife from falling in and place a ramp to enable wildlife to escape. Securely fence compounds and trenches during construction.

A2 – Watercourse buffer zone

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 3, Section 3.3.25	
Issue	No reference is made to the maintenance of a riparian buffer when constructing the crossing.
Impact	Riparian mammals occupying the watercourse could be disturbed without a sufficient riparian buffer.
Solution	Maintain a riparian buffer around all watercourses. As a minimum this needs to be 10m from the bank top. Working lighting should be positioned to avoid light-spill onto sections of the watercourse.
Additional narrative/explanation It is recommended that, during the construction phase, temporary construction compounds within 15m of watercourses should be screened with fencing on sides adjacent to the watercourse.	

A3 – Missing environmental legislation

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.2, Section 6.2.4	
Issue	Omission of recent (2024) legislation pertaining to biodiversity net gain (BNG).
Impact	Risk of not considering new environmental definitions in legislation in respect of BNG, such as ‘irreplaceable habitat’, along with related offences to said habitats.

Solution	Please include the following legislation, policy and guidance: Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024.

A4 – Watercourse crossings

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.14, Section 6.14.67	
Issue	Culverts may be constructed.
Impact	Culverts have the potential to fragment habitats and reduce connectivity, making dispersal and commuting for some species difficult. Culverts also put an added pressure on otters during periods of high water-levels, as they offer little room for conveyance and put otters at risk of being killed when crossing roads.
Solution	Where access tracks are required to cross watercourses or ditches, we would expect to see an open span bridge design, rather than culverts. There may also be an opportunity to upgrade existing watercourse crossing points in order to benefit ecology, for example by removing an existing culvert and replacing it with an open span bridge.

A5 – Invasive non-native species (INNS)

Document Reference(s): *H2NorthEast Project Volume 2: Environmental Impact Assessment Scoping Report Figures and Appendices.* Table B.1	
Issue	An INNS Management Plan and a Biosecurity Plan have not been secured as a commitment.
Impact	The lack of both biosecurity measures and an appropriate commitment for INNS control risks the spread of INNS within the scheme boundary, which is an offence under The Wildlife and Countryside Act 1981 (as amended) and The Invasive Alien Species (Amendment (EU Exit)) Regulations 2019.
Solution	Include a commitment to complete a Biosecurity Protocol or an INNS Management Plan within the Commitments Register. As part of this the Applicant must include biosecurity measures and a plan on managing and mitigating the spread of INNS.

End of Appendix A

Appendix B – Groundwater Protection and Contaminated Land

B1 – Hydrogen production facility (HPF)

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 2, Sections 2.4.12 and 2.4.13 and; *H2NorthEast Project Volume 2: Environmental Impact Assessment Scoping Report Figures and Appendices.* Appendix A, Figures 6.6.1 and 6.6.2	
Issue	The geographic extents of the HPF Area are unclear.
Impact	There is a risk that the Applicant's conceptual understanding of ground conditions underlying the HPF Area may be flawed, and any resultant conclusions and mitigation measures relating to groundwater protection could be inadequate. There is also difficulty in confirming the accuracy of the environmental setting of the HPF Area.
Solution	The HPF Area should be unambiguously defined, and the Applicant should confirm the geological and hydrogeological setting of this area of the Proposed Development.
Additional narrative/explanation Figure 3.1 labels part of the central area of the Proposed Development as the HPF Area, however reference to 1:50,000 scale British Geological Survey (BGS) maps indicates this area to be directly underlain by artificial ground followed by superficial Tidal Flat deposits and Mercia Mudstone Group mudstone bedrock rather than the sequence stated. The cited BGS map (BGS Viewer) and figures do not remedy this issue. The Applicant states that the HPF Area is located over 6km from the nearest aquifer Source Protection Zone (SPZ) and over 1km from the nearest Nitrate Vulnerable Zones, Drinking Water Protected Areas and Drinking Water Safeguard Zones. While these statements are likely to be accurate, in the absence of a clear boundary for the HPF we cannot easily crosscheck these statements.	

B2 – Inconsistencies/inaccuracies: ground conditions

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 2, Sections 2.4.12, 2.4.13, 2.4.37 and 2.4.38

Chapter 6.6, Section 6.6.32	
Issue	The relationship between the geological strata and hydrogeological setting is not clearly set out.
Impact	Inadequate conceptual understanding of ground conditions may mean that receptor sensitivity and potentially significant pathways are not appropriately considered.
Solution	The Applicant should include a summary of the aquifer designations of the various bedrock and superficial strata present at the site where aquifers are discussed. The Applicant should also ensure that the aquifer statuses of underlying strata are correctly determined.
Additional narrative/explanation The descriptions of geology and hydrogeology in Chapter 2 do not include reference to the aquifer designations of the superficial or bedrock geological units. Additionally, the Applicant's description of the respective aquifer designations of the bedrock and superficial strata in Section 6.6.32 do not match our records. The Applicant also states that areas of Secondary A aquifer are indicated locally on the site where sands and gravels are indicated to be present at surface, however our records show local superficial Secondary A deposits associated with deposits of Alluvium, Glaciolacustrine, Tidal Flat Deposits and Blown Sand.	

B3 – Inconsistencies/inaccuracies: geological setting

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 2, Section 2.4.37	
Issue	The description of the geological setting of the site contains inaccuracies. The text refers to mudstone as a superficial deposit and does not mention the presence of Penarth Group mudstone in the centre eastern part of the Proposed Development.
Impact	Inaccuracies may result in an inadequate understanding of ground conditions.
Solution	Include an accurate summary of the aquifer designations of the various bedrock and superficial strata present at the site.

B4 – Open cut trenches

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 3, Section 3.1	
Issue	No indication is provided of the maximum anticipated dimensions of open cut trenches.

Impact	Open cut trenching may require temporary dewatering if extending into shallow groundwater. Depending on ground conditions this may involve management of contaminated water.
Solution	Confirmation of the anticipated maximum dimensions of open cut trenches and other utility trenches should be provided. The Applicant should consider the potential need for construction dewatering.
Additional narrative/explanation Additional information on dewatering is provided in Appendix H.	

B5 – Fire water containment

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 3, Section 3.2.6	
Issue	There is no mention of designing the fire water system to enable containment of potentially contaminated fire water.
Impact	Without the above measure incorporated into the design of the fire water system, contaminated fire water could enter the ground and impact groundwater quality in the event of a fire.
Solution	Incorporate fire water containment into the design of the HPF.
Additional narrative/explanation This information should include, but not be limited to: • A detailed drainage plan which demonstrates, in the event of an emergency, that contaminated firewater can be adequately contained within the site to ensure that there is no discharge of polluted water to ground or surface water bodies. • Any system for the storage of contaminated firewater should have sufficient capacity/headroom for the volumes expected in the event of a fire, even during periods of intense rainfall. • The system for containing firefighting effluent should be automatic with a backup system in place in case of power failure.	

B6 – Trenchless crossings

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 3, Sections 3.3.14 to 3.3.25; Table 3.1	
Issue	There is no confirmation of whether a hydrogeological risk assessment is to be carried out for any trenchless crossings beneath vulnerable features such as watercourses and sensitive ecological receptors, or in the event such works would extend into designated aquifers.

Impact	Unmitigated trenchless installation methods could result in detrimental impact to aquifers, surface water bodies and/or sensitive ecological receptors.
Solution	Carry out a hydrogeological risk assessment for any trenchless crossings extending through Secondary A and/or Principal aquifers, beneath surface water bodies and/or sensitive ecological sites. If Horizontal Directional Drilling (HDD) is proposed to be used to cross watercourses, the Applicant must assess whether this would affect local licensed or unlicenced abstractions by carrying out a water feature survey.

B7 – Establishing baseline conditions

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.6, Sections 6.6.11 and 6.6.20 Chapter 6.14, Section 6.14.10	
Issue	Current and historic Ordnance Survey (OS) maps have not been included in the list of publicly available sources of information used to establish the baseline condition of the Proposed Development site regarding ground conditions. This is despite OS maps being cited as sources of information in the review of water environment baseline presented in Section 6.14.10 and a discussion of historic potential contamination sources is presented from Section 6.6.20 onward.
Impact	Potentially significant contamination sources may have been missed if historic OS maps have not been reviewed.
Solution	The Applicant should review historic OS maps if this has not been conducted and include these in the list of information sources.

B8 – Contamination from authorised/historic landfill sites

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.6, Section 6.6.24	
Issue	Several authorised and historically licensed landfill sites within the study area are referenced in the Scoping Report as potential sources of contamination, but they are not listed in full and details of wastes received at these sites are not provided.
Impact	Potential for landfill related contamination to be underestimated, and potential for significant constraints to the Proposed Development if the risks are not properly assessed, such as damage to gas and leachate collection systems and landfill liners. Potential for excavations outside

	areas of landfilling to be impacted by migration of hazardous ground gases.
Solution	The Applicant should further assess all identified landfill sites in subsequent stages of the application process. In particular, the Applicant should consider whether the Proposed Development has the potential to damage the integrity of existing landfills and/or encounter historic contamination or wastes associated with these features. The Applicant should avoid damaging landfill infrastructure where possible, or if this is unavoidable should ensure that monitoring infrastructure such as perimeter monitoring wells are replaced with alternative installations before the originals are damaged, and that any damage to other infrastructure is repaired under construction quality assurance (CQA). The Applicant should also note that any excavated wastes from closed landfills would not be replaceable in-situ and would need to be disposed appropriately off-site. An informative about closed landfill sites is provided in Appendix H.
Additional narrative/explanation The Proposed Development footprint overlaps the southern part of the boundary of Bran Sands landfill site. Bran Sands Landfill, which incorporates leachate and gas management, is closed and managed under CQA. Landfilled wastes present in historic and authorised landfills may include asbestos, and may at act as a source of hazardous gas generation which may impact excavation activities both within and beyond the landfill boundaries.	

B9 – Off-site contamination

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.1, Table 6.3	
Issue	The Scoping Report does not acknowledge that adjacent to the Proposed Development site are areas where land contamination and pollution of groundwater (typically in the form of hydrocarbon contamination) are known to be present.
Impact	Off-site contamination may have an impact on on-site conditions. There is the potential for mobile contamination and artificially altered groundwater flow and gradient to be present associated with the adjacent Aurorium facility and ConocoPhillips oil refinery sites which may affect or be exacerbated by the Proposed Development if not adequately identified and managed.
Solution	The Applicant should demonstrate a sufficient understanding of potential mobile contamination sources relating to on-site and off-site sources in future submissions supporting the Proposed Development.
Additional narrative/explanation	

Following a request by Stockton Borough Council in 2002, the Environment Agency is undertaking a Part 2a inspection of the Aurorium facility at Seal Sands, located to the immediate west of the proposed Hydrogen Pipeline (East). This was previously known as Seal Sands Chemical Limited and Vertellus Speciality Chemicals. The facility manufactured synthetic organic chemicals but is no longer operational. This inspection is ongoing.

Following a request by Stockton Borough Council in 2002, the Environment Agency has undertaken a Part 2a inspection of the ConocoPhillips oil refinery at Seal Sands located to the immediate west of the proposed Hydrogen Pipeline (East). This facility is directly adjacent to the northern boundary of the Aurorium facility. In 2024, the inspection results and recommendations were provided to the Local Authority for review. The results of the inspection were that the site did not meet the requirements for determination as Contaminated Land. At the current time, the Local Authority has not determined the site as Contaminated Land.

Information collated as part of the inspection indicates the potential presence of slag walls in the seal sands area, the alignment of which may locally influence groundwater flow and hydraulic gradient.

B10 – Presence of made ground

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*.

Chapter 6.6, Section 6.6.24

Issue	The Proposed Development Site is within an area where slag deposits and slag containing made ground materials may be present which are associated with historic infilling.
Impact	The presence of slag deposits could pose a significant constraint from a materials management and groundwater risk perspective.
Solution	The Applicant should consider the potential impacts that the presence of slag and slag containing waste materials may pose to the Proposed Development and to ensure that the necessary risk assessments are carried out and permits acquired. Early Enhanced Pre-Application consultation with the Environment Agency's National Permitting Service is recommended to minimise impacts on the Proposed Development programme.

Additional narrative/explanation

The excavation of slag and slag containing made ground does not comply with the CL:AIRE Definition of Waste:Code of Practice (DoW CoP) because it does not satisfy the four key factors; protection of human health and the environment, suitability for use, certainty of use and quantity of use. It is not a low-risk activity.

Earthworks and construction activities involving the excavation, remediation and reuse of slag and made ground predominantly comprising slag is a groundwater activity under Schedule 22 of the Environmental Permitting Regulations (2016) and also requires a deposit for recovery permit. When excavating / reusing slag or slag containing waste materials, it is also essential that the Applicant carries out a hydrogeological risk/impact assessment. This will help inform whether there is a risk of deterioration of groundwater quality and put necessary mitigation / control measures in place to prevent this.

B11 – Unexpected contamination (during construction phase)

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report.* Chapter 6.6, Sections 6.6.66 to 6.6.69	
Issue	There is no mention of the provision of a watching brief and discovery protocol for unidentified contamination to be employed during the construction phase. No reference is made to embedded mitigation for trenchless crossings, such as development of drilling fluid breakout plans.
Impact	Potential for contamination impacts to groundwater bodies resulting from insufficient protocols if unanticipated contamination sources are encountered during construction phase.
Solution	Include a contamination watching brief and discovery protocol, and drilling fluid breakout plans, as part of construction phase embedded measures.

B12 – Contamination impacts during operation phase

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.6, Sections 6.6.49 to 6.6.51	
Issue	Operational phase impacts from both the HPF Area and Hydrogen Pipeline(s) and associated development components have been Scoped Out based on the implementation of an Environmental Permit (HPF only) and the use of design and construction methods (wider Proposed Development site).
Impact	Potential for contamination impacts during the operational phase for the areas of the site not managed under an Environmental Permit if management procedures are inadequate.

Solution	Impacts during the operation phase from aspects of the development not managed under Environmental Permit (i.e. excluding the HPF) should remain Scoped In.

B13 – Impacts to groundwater quality (during operation phase): Hydrogen Pipeline

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report.* Chapter 6.14, Section 6.14.58	
Issue	The Applicant proposes to Scope Out impacts to groundwater quality from the Hydrogen Pipeline and associated infrastructure during the operation phase. This is at odds with the Scoping Report which states that the presence of new below ground structures may permanently alter groundwater characteristics, however the Report only acknowledges impacts to groundwater quantity. Furthermore, surface water drainage from permanent infrastructure such as above ground infrastructure may impact water quality. At this stage it is unspecified whether such features would discharge to surface water, ground or existing surface water drainage infrastructure.
Impact	The presence of new below ground structures as part of the Hydrogen Pipeline during the operation phase may permanently alter groundwater quality.
Solution	Impacts to groundwater quality from the Hydrogen Pipeline during the operation phase should be Scoped In.
Additional narrative/explanation We acknowledge that impacts to groundwater quality from the HPF during the operation phase have been Scoped Out. We are satisfied with this decision since impacts will be covered via an Environmental Permit.	

B14 – Underground components left in-situ

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report.* Chapter 3, Section 3.8 Chapter 6.6, Sections 6.6.59 and 6.6.60	
Issue	The Scoping Report does not state whether the retention of any below-ground infrastructure (e.g. the Hydrogen Pipeline or Effluent Pipeline) could act as a source of contamination or a contaminant migration pathway following the decommissioning phase. Additionally, the Applicant proposes to Scope Out ground condition impacts for the HPF during the decommissioning phase.

Impact	The retention of below ground infrastructure (including pile foundations and relic structures) could pose a risk to groundwater quality following the decommissioning stage as a source of contamination or contaminant migration pathway.
Solution	The Applicant should Scope In impacts from decommissioning of the HPF until it can be demonstrated that the infrastructure proposed to be left in-situ would not pose a significant risk to groundwater.

B15 – Missing legislation

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report.* Chapter 6.14, Section 6.14.3	
Issue	List of legislation, policy and guidance documentation relevant to water quality is incomplete.
Impact	Potential for the Proposed Development to be contrary to aspects of the Environment Agency's groundwater protection position statements.
Solution	The Environment Agency's Approach to Groundwater Protection should be listed as relevant to water quality and used by the Applicant to ensure the design proposals do not clash with the position statements therein.

B16 - Inaccurate characterisation of the Water Framework Directive (WFD) groundwater bodies

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report.* Chapter 6.14, Section 6.14.27	
Issue	No reasoning is provided for the WFD classifications of the two WFD Groundwater bodies within the study area. The Scoping Report also fails to identify that the Tees Mercia Mudstone & Redcar Mudstone waterbody extends into the southernmost part of the Proposed Development area, to the west of the Tees.
Impact	Inaccurate characterisation of the WFD Groundwater bodies present on the site.
Solution	Please revisit the WFD Groundwater body descriptions provided in the report.

B17 – Thermal impacts on groundwater

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report.*

Chapter 6.14, Section 6.14.58	
Issue	Potential impacts from heating or cooling of the strata surrounding buried infrastructure have not been included in the list of potential impacts to the water environment.
Impact	Potential for significant thermal impacts on groundwater to not be identified and mitigated.
Solution	Consideration should be given to whether the proposed below ground infrastructure for the Proposed Development would have potentially significant thermal implications on groundwater receptors.

Additional narrative/explanation

Although there would likely be no significant thermal impact on surrounding strata from buried infrastructure conveying fluids at stable pressures, significant changes in pressure would result in local environmental heating or cooling effects. If uncontrolled and in connectivity with groundwater, this could result in the generation of a thermal plume or localised cooling or even freezing of groundwater.

Heat as a groundwater pollutant was introduced in 2023 via the Environmental Permitting (England and Wales) (Amendment) (England) Regulations 2023 SI No.2023/651:

""pollutant", in relation to England, means any—

a. *substance,*
b. *heat, or*
c. *biological entity or micro-organism,*

which is liable to cause pollution;"

We are mindful that work is being carried out in this area in relation to impacts to groundwater from ground source heating and cooling systems but there is currently no guidance relating to the potential thermal implications of other buried infrastructure. The Environment Agency's Chief Scientist's Group has published a report for Ground Source Heating and Cooling (GSHC) systems (Environmental Impacts of Temperature Changes from Ground Source Heating and Cooling Systems). In this study, a 'thermal plume' was defined as the region around a GSHC system that experiences a 1 degree C temperature change or greater. While the study is not directly applicable to thermal impacts from infrastructure which may cause decompression-related cooling, an equivalent benchmark may be of relevance.

The Chief Scientist's Group states that the environmental factors with the greatest influence on thermal plume development include groundwater flow and bulk thermal conductivity. It identifies that impacts may occur by direct (temperature change) and indirect (e.g. changes in water chemistry) means.

At this stage we require the potential thermal implications in relation to risks to groundwater, to be considered further via desk-based assessment.

B18 – Mitigation: groundwater

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report.* Chapter 6.8, Sections 6.8.105 and 6.8.107 Chapter 6.14, Sections 6.14.63 and 6.14.64	
Issue	The list of proposed water environment mitigation to be incorporated into the Construction Environmental Management Plan (CEMP) does not include several items stated later in Section 6.8.105 which would also be protective of surface and groundwater quality. Section 6.8.107 also refers to the development of a Pollution Prevention and Management Plan in line with guidance from the Environment Agency Pollution Prevention Guidelines and CIRIA C736 'Containment Systems for the Prevention of Pollution'. This is not mentioned in the Ground Conditions or Water Environment sections of the Scoping Report.
Impact	Certain key mitigation measures and documentation may be missed if not stated in each of the technical contexts they apply to.
Solution	Relevant mitigation measures and key documents should be cited for all relevant impact categories, including: • refuelling of machinery will be undertaken within designated areas where spillages can be easily contained. Machinery will be routinely checked to confirm it is in good working condition; • any tanks and associated pipe work containing oils and fuels will be double skinned and be provided with intermediate leak detection equipment; • areas at risk of spillage, such as vehicle maintenance areas and hazardous substance stores (including fuel, oils and chemicals) will be bunded and carefully sited to reduce the risk of hazardous substances entering soils, groundwater, drainage systems or local watercourses that could impact the marine environment; • additionally, the bunded areas will have impermeable bases to limit the potential for migration of contaminants into potential receptors following any leakage/spillage; • bunds used near the marine environment that will store fuel, oil etc. to have a 110% capacity; • construction materials will be managed in such a way as to effectively reduce the risk posed to the marine environment; and • plant machinery and vehicles will be maintained in a good condition to reduce the risk of fuel leaks to the marine environment.

End of Appendix B

Appendix C – Marine Biodiversity

C1 – Missing legislation

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.2, Section 6.2.4 and Chapter 6.8, Table 6.39	
Issue	The Eels (England and Wales) Regulations 2009 have not been included in the list of legislation that is relevant to biodiversity.
Impact	The legal responsibility on the Applicant pertaining to this fish specific legislation has not been considered. This infers that the impacts on fish from the construction, operation and decommissioning phases have not been fully considered.
Solution	Include the Eels (England and Wales) Regulations 2009 in the Marine Biodiversity chapter in the Preliminary Environmental. Information Report (PEIR) and Environmental Statement (ES).

C2 – Imprecise taxonomic descriptions

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.21	
Issue	Imprecise use of taxonomy.
Impact	Confusion over intended meaning and misattribution of potential impacts to species.
Solution	Ensure precise and correct taxonomic descriptions are used.
Additional narrative/explanation For example, 'shrimp species'. Shrimp is a generic term (and not a species) used to refer to caridean members of the Decapoda. Whilst there may be some decapods (in terms of diversity and abundance) present in intertidal mudflats, fauna present in intertidal sediment are more likely to include Amphipoda and Isopoda.	

C3 – Species missing from River Tees baseline data

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.44	
Issue	Sea lamprey (*Petromyzon marina*) and European eel (*Anguilla anguilla*) have not been listed.
Impact	Omission of migratory fish, particularly those covered by legislation, suggests that these species are not present in the River Tees. This may

	mean that impact-pathways are not included in the EIA, leading to unforeseen effects on these fish and potentially risking compliance with legal obligations.
Solution	Include European eel and sea lamprey in the baseline data for the River Tees.

C4 – Incorrect timings for presence of fish in River Tees estuary

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6, Section 6.8.46	
Issue	The suggested timings for the presence of Atlantic salmon (*Salmo salar*) and sea trout (*Salmo trutta*) in the River Tees estuary are incorrect.
Impact	Impact-pathways on these species may not be fully assessed in the EIA.
Solution	It should be acknowledged in the Scoping Report that adult Atlantic salmon and sea trout are likely present in the estuary earlier than October and as early as February/March with significant up lift in May (as per Table 6.40). Additionally, smolts are passing through the estuary as early as April through to Autumn, with peaks from mid-March to mid-May.

C5 – River Tees salmon population

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.48 and Picture 6.1	
Issue	Misleading description for patterns in numbers of salmon in the River Tees.
Impact	Incorrect description of population trends can lead to misattribution of potential risks or impacts from the Proposed Development.
Solution	Be careful, precise and correct when describing trends, particularly for receptors or activities that may influence perception of risk from the Proposed Development.
Additional narrative/explanation Beginning the commentary in 2013 leads to misunderstanding of the actual underlying pattern. Based on the figure presented, numbers were exceptionally large in 2012-13 but were otherwise consistently between 200-500. The commentary also incorrectly references that data is presented across 10 years, not 14 years as shown in Picture 6.1.	

C6 – Migratory species

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.49	
Issue	European eel (*Anguilla anguilla)* have been listed as a non-migratory species.
Impact	Impact-pathways on the full life cycle of this species may not be assessed in the EIA.
Solution	European eel are a diadromous species that experiences catadromy, i.e. it migrates from freshwater as an adult to the sea to spawn, and returns as a juvenile to the freshwater where it matures. European eel should therefore be listed as migratory.

C7 – Omission of valid records: Atlantic salmon

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.46	
Issue	There are records of Atlantic salmon in the National Biodiversity Network (NBN) Atlas, including some from the River Tees, however the Scoping Report incorrectly states that no records of Atlantic salmon were present in NBN Atlas.
Impact	Incorrect statements such as this create misunderstandings about the presence and abundance of key receptors which may then lead to incorrect assessments about risk or impact.
Solution	Rephrase statement for clarity and correctness to ensure that risks to salmon from the Proposed Development can be appreciated fully.

C8 – Confusion of migratory and non-migratory species

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.52	
Issue	Section 6.8.52 references migratory species, despite being contained within the Section of the Scoping Report focused on non-migratory species.
Impact	Non-logical sequences of information cause confusion and reduce credibility of the Scoping Report.
Solution	Re-arrange the information so that it fits within the relevant section of the Scoping Report.

C9 – Omission of valid records: benthic species

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.54	
Issue	The statement "NBN Atlas had no records of any species within proposed River Tees crossing area or Wastewater Connection Corridor outfall" is incorrect. The NBN Atlas contains numerous records of benthic species.
Impact	Omitting valid records may lead to misattribution or underestimation of risks or impacts to receptors.
Solution	Increase the specificity and accuracy of statements regarding data records (i.e. it should be made clear if only searching for subsets of records).

C10 – Inconsistencies/inaccuracies: marine INNS

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.57	
Issue	The Scoping Report incorrectly states that no records of marine INNS were present after a review of NBN Atlas. There are records for *Austrominius modestus* and *Petricolaria pholadiformis* within the 2km buffer boundary specified as the zone of influence for marine biodiversity.
Impact	Failure to recognise presence of relevant species may mean that risks to or from those species are missed.
Solution	Conduct a more thorough assessment for presence of marine INNS and modify any assessments of risks around INNS as appropriate.

C11 – Impacts of noise and vibration on migratory and/or protected fish

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Table 6.41 Chapter 8, Table 8.1	
Issue	Effects of underwater noise and vibration during construction have been Scoped Out.
Impact	Inadequate consideration has been given to the risks of noise from possible HDD or machinery used to break up concrete. There is a risk of impacts to migratory and/or protected fish from continuous noise from

	drilling activities. If fish were to disperse away from the risk of mortality or injury from the proposed works (stated in Section 6.8.85), this is in itself is an impact as they may be dispersed counter to the natural direction of their migratory route. Allowing impacts that interfere with fish migration (despite any intrinsic motivation that might be exhibited) by causing a disturbance of barrier-effect may compromise the projects compliance with legislation, including WFD.
Solution	Impacts of noise and vibration during construction should be Scoped In for migratory fish. Ensure that noise levels are correctly assessed in relation to the sensitivities of migrating fish. Provide appropriate mitigation. Timing of activity may be a suitable mitigation to avoid such disturbances.

Additional narrative/explanation

The behavioural threshold suggested (150cB SPL_{RMS}) cannot necessarily be relied upon to understand how salmonids behave to noise. The threshold suggested is based on sound pressure, whereas salmonids use particle motion to detect noise. Popper *et al* (2014) suggests that there is a moderate risk of behavioural effect on fish from continuous noise at near (metres) and intermediate (10-100 metres) distances. The source of the continuous noise from drilling is within 10s of metres, and so a moderated behavioural effect.

Reference

Popper, A.N., Hawkins, A.D., Fay, R.R., Mann, D.A., Bartol, S., Carlson, T.J., Tavolga, W.A. (2014) *ASA S3 s^{-1}C1. 4 TR-2014 sounds exposure guidelines for fishes and sea turtles: A technical report prepared by ANSI-accredited standards committee S3 s^{-1}C1 and registered with ANSI.* New York, NY: Springer

It should also be noted that this issue has been presented inconsistently in the Scoping Report. While Table 6.41 indicates that injury or disturbance as a result of underwater noise and vibration during construction is Scoped Out, Table 8.1 indicates that this aspect has been Scoped In to the EIA.

C12 – Noise assessment

Document Reference(s): *H2NorthEast Project Volume 2: Environmental Impact Assessment Scoping Report Figures and Appendices.*

Section H.2.1

Issue	Reliance on old data. The background noise survey described in the Scoping Report is now over 10 years old, during which time there has been extensive development in the Tees area.
Impact	Underestimating levels of background noise may lead to underestimates of cumulative noise when combined with noise contributed by the

	Proposed Development, thereby leading to disturbance to a variety of receptors and failure to comply with legislation (e.g. WFD).
Solution	A contemporary assessment of baseline noise would allow more reliable assessments to be made. This should include a variety of indices and, if nocturnal activity is planned, include noise at different times of day/night.
Additional narrative/explanation Disregarding noise as a potential disturbance also contrasts with Section 6.8.40 where it states, "high levels of noise pollution from constant ship traffic and industrial activities can disrupt the communication and navigation of these marine mammals, which rely heavily on sound". This demonstrates inconsistency in the way that the Scoping Report presents pathways and impacts.	

C13 – Accidental escapement of contaminated water

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.67	
Issue	The impact on fish from an accidental escapement of contaminated water within the existing into the River Tees has not been fully considered.
Impact	Impact-pathways on fish species within the River Tees from potential spillage of contaminated water may not be assessed in the EIA. Excess water (depending on its properties and potential contaminants) could also create a significant plume in the estuary that could have significant impact to all flora and fauna within the estuary, as well as fish.
Solution	We note that testing is currently being undertaken on the water within the tunnel. However, the EIA should assess the worst-case scenario if there were to be an accidental release of water, including what the extent of plume within the channel would be and how water quality compares to that of the River Tees Estuary.

C14 – Breakout of drilling fluid

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.70	
Issue	Risks from breakout of drilling fluid from HDD have not been considered.
Impact	Depending on the type of drilling fluid used, breakout or spillages could cause risks to marine species.
Solution	Ensure that risks from breakout are Scoped In and clearly identified. The Applicant should produce a Bentonite Breakout Plan.

C15 – Impacts of construction on European eel

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.83	
Issue	The impact-pathway on European eel (*Anguilla anguilla)* from excavation works has not been considered.
Impact	This species can be found within estuarine sediments and could experience physical damage or disturbance from the mechanical action of excavations. Furthermore, certain methods of excavation/dredging may harm eel through entrapment into pumps or physical damage from shear stress.
Solution	Details of the excavation methods should be presented in the EIA, with European eel included in the risk assessment.
Additional narrative/explanation Certain methods of excavation/dredging may require an exemption from the Environment Agency under the Eels (England and Wales) Regulations 2009.	

C16 – Incomplete list of data sources

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.8, Section 6.8.112	
Issue	Incomplete list of data sources. UK species records portals have not been included.
Impact	Potential for omission of key receptors.
Solution	Include NBN Atlas (or perhaps OBIS records) in the list of key resources for baseline study.

End of Appendix C

Appendix D – Flood Risk and Modelling

D1 – Flood risk assessment

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report.* Chapter 3, Section 3.3.5	
Issue	There are some areas within the Order Limits that are situated within Flood Zones 2 & 3 which have a higher probability of flooding from rivers and/ or the sea. Reference to the Sequential Test and Exception Test are not made in relation to the Flood Risk Assessment (FRA).
Impact	The Sequential Test will be required to be passed, as outlined in the National Policy Statement (NPS) EN-1, and the National Planning Policy Framework (NPPF). If the site needs to be situated in areas at risk of flooding, then The Exception Test must also be applied and the FRA must assess flood risk from all sources of flooding.
Solution	Include the above tests in the FRA if necessary.
Additional narrative/explanation We note that the HPF is located within Flood Zone 1. However, it is currently unclear whether any above ground infrastructure will be situated in Flood Zones 2 and 3. Compliance with policy regarding the Sequential Test is not within the remit of the Environment Agency but with the Local Planning Authority. We are emphasising the need for the Applicant to demonstrate the Sequential Test has been passed.	

D2 – Design life of development

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report.* Chapters 6.3, Sections 6.3.6 and 6.3.15	
Issue	It is noted that the design life of the development is expected to be 25 years although there is potential for an extended operating life beyond 25 years.
Impact	Flood risk to the development could be underestimated if the lifetime of the development is underestimated.
Solution	In line with National Planning Practice Guidance, as a starting point, the lifetime for non-residential development should be considered as 75 years. Please see Flood risk and coastal change - GOV.UK for further information. From a fluvial flood risk perspective this means that the 2080s epoch should be used as the assessment horizon. From a tidal

	perspective sea level rise should be applied to the end of the development lifetime. As the development would be classed as "*Essential Infrastructure*" from a fluvial perspective the higher central allowance should be used as the design scenario. From a tidal perspective the higher central and upper end allowances should be considered. A Credible Maximum scenario should also be considered as a sensitivity test to demonstrate the resilience of the development should higher climate change allowances materialise. For further information on the application of climate change allowances please see Flood risk assessments: climate change allowances - GOV.UK.

D3 – Flood risk during construction phase

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.3, Section 6.3.14	
Issue	It is proposed to Scope Out the construction phase from the climate change resilience assessment. It is not clear when the construction phase is expected to end. It is noted that there is the potential for several phases of work within the construction period. Phase 1 is expected to last 4 years. There is then the potential for two trains within Phase 2, each being 4 years in length. This suggests a potential construction duration of 12 years.
Impact	Flood risk during the construction phase could be underestimated.
Solution	Please Scope In the assessment of climate change during the construction phase.

D4 – Updated flood risk information

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.14, Section 6.14.28	
Issue	The production of the new Risk of Flooding from Rivers and Sea and Risk of Flooding from Surface Water Datasets at the end of January supersedes the information presented within Figure 6.14.2 in Appendix A. Whilst an initial inspection of the new data does not show any significant differences it is important to check that there have been no notable changes in flood risk to the proposed development area.
Impact	New flood risk information is available which may affect the assessment of flood risk to the proposed development site.
Solution	Please review the new Risk of Flooding from Rivers and Sea and Risk of Flooding from Surface Water datasets. Further information is available

	online at: Updates to national flood and coastal erosion risk information - GOV.UK

D5 – Watercourse crossings

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report.* Chapter 6.14, Section 6.14.67	
Issue	Any proposed access crossings should be designed so that the soffit level of any bridges/crossings sits above the design flood level with an allowance for freeboard.
Impact	Inappropriate design of crossings could lead to increases in flood risk and difficulties associated with access and egress to the site.
Solution	Careful consideration will need to be given to how the design flood level will be determined for any proposed crossings. Typically, this would be determined by undertaking hydraulic modelling or referring to existing detailed hydraulic modelling data (where available and suitable). Any proposed crossings should be designed such that they do not increase flood risk elsewhere.
Additional narrative/explanation The design flood level for permanent crossings in areas of fluvial flood risk would be the 1% (1 in 100) annual exceedance probability (AEP) plus higher central climate change scenario. In watercourses which are tidally dominated the 0.5% (1i n 200) AEP plus higher central climate change should be considered. For Main Rivers, Flood Risk Activity Permits (FRAPs) will be required for new crossings or alterations to existing crossings.	

D6 – Hydraulic modelling

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report.* Chapter 6.14, Section 6.14.73	
Issue	This section notes that a desk-based study will be completed using publicly available data and data from stakeholders. The Environment Agency hold hydraulic models for some of the Main Rivers and the Tees Estuary which cross the order limits for the development.
Impact	The assessment of flood risk could be inaccurate or out of date if third party modelling information is not reviewed before it is used to inform the FRA.

Solution	Please ensure any modelling information you use is reviewed to ensure it reflects the current risk to proposed development area. Please see the additional comments below for further information.
Additional narrative/explanation Available hydraulic modelling can be requested from northeast-newcastle@environment-agency.gov.uk. When using third party modelling data to assess flood risk to and from any proposed development you should consider whether any available modelling is suitable for site specific assessment in line with guidance on using modelling for FRAs available online at: Using modelling for flood risk assessments - GOV.UK.	

End of Appendix D

Appendix E – Geomorphology

E1 – Open cut trench methods

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 3, Table 3.1	
Issue	Open cut trenching is being considered for the construction of crossings.
Impact	Open cut trenching of watercourses can interfere with flow regimes and disturb bank and bed features, potentially introducing weaknesses into the watercourse structure.
Solution	Trenchless crossing methods are preferable. However, it is acknowledged that this is not always possible or practicable. If watercourses to be crossed are seasonally dry, then these should be crossed during a dry period, and bed/banks reinstated to pre-crossing condition (or better). Where the watercourse concerned is permanently wet, all endeavours should be made to cross the watercourse sensitively, restoring channel bedforms and banks to prior conditions.
Additional narrative/explanation Any infrastructural developments on river/floodplain environments should be designed and delivered to have a minimal impact on natural river dynamics (e.g. erosion, deposition, meander migration etc.) and should not place any significant limitations on future river restoration projects. The Environment Agency would expect to see geomorphologically robust designs for river crossings that will cause minimal impacts on natural fluvial processes operating in the river/floodplain environment over the course of the 21st Century. Further guidance on river crossings can be found in the following document: Engineering in the water environment: good practice guide - River Crossings	

E2 – Culverts

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.14, Section 6.14.67	
Issue	The construction of culverts may be required.
Impact	Culverts may have an impact on flow regimes and if box/pipe culverts utilised, may also cause disturbance to riverbed/banks and associated geomorphology/hydromorphology.

Solution	Avoid the use of culverts and instead utilise open span crossing methods that use set-back abutments and do not interfere with/encroach on banks/riverbed. For temporary access crossings, Bailey Bridge or scaffold type structures, with set-back abutments, should be considered.

End of Appendix E

Appendix F – Surface Water Quality

F1 – Existing reedbed drainage system

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 3, Sections 3.2.34 and 3.3.2	
Issue	Existing reedbeds and associated ponds will be removed as part of site clearance works.
Impact	Reduced quality of effluent being discharged to the environment.
Solution	Use of mobile treatment plant until such time as the replacement reedbed system is installed and operational to treat existing CATs Terminal and Proposed Development grey water streams (Section 3.2.34). This is necessary to avoid non-compliance with emissions to Greatham Creek.
Additional narrative/explanation Reedbeds are part of the CATs permit requirements for the biological treatment of waste water system (EPR/SP3839RU - Schedule 1 Table S1.1 Activity S5.4 A1(a)(i)) - treatment of effluent in an aeration tank and reed beds. Early engagement with our National Permitting Service is recommended.	

F2 – Disposal of grey water

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6.14, Section 6.14.82	
Issue	No information on how grey water from the Proposed Development will be disposed of during the construction phase.
Impact	Treatment and discharge would require an Environmental Permit, or potential variation to an existing Environmental Permit, to ensure the effluent was adequately treated to protect the receiving environment.
Solution	Provide self-contained amenity units to contain grey water for collection and removal off site for appropriate treatment.
Additional narrative/explanation It is acknowledged that the Outline Drainage Strategy to be presented as a technical appendix of the ES may potentially contain this information, but it is not currently available.	

F3 – WFD Assessment

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*.

Chapter 6.14	
Issue	The Scoping Report does not mention whether the Applicant intends to carry out a WFD assessment.
Impact	When a WFD assessment is not provided there is the potential for the activity to cause or contribute to the deterioration of waterbody status, which is not compliant with the goals set out in the Northumbrian River Basin Management Plan.
Solution	A WFD assessment is required. The Applicant should undertake a WFD assessment following the Clearing the Waters for All guidance. The assessment should identify the receptors potentially at risk from the project. If risks are identified, an impact assessment should be undertaken to identify ways to avoid or minimise the identified risks.
Additional narrative/explanation It is acknowledged that embedded mitigation will be considered during the design process of the Proposed Development. A WFD assessment should be included as a separate document to this, to meet the guidance set out in the Clearing the Waters for All document. The WFD assessment can help to inform what mitigation measures should be considered to reduce the potential for the Proposed Development to adversely impact the water environment. The WFD assessment includes three stages, not all the stages need to be completed depending on the findings at each stage. Guidance for completing the assessment can be found at: Water Framework Directive assessment: estuarine and coastal waters - GOV.UK	

F4 - Bran Sands Sewage Treatment Works

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 3, Section 3.2.31	
Issue	The Scoping Report does not state if NWL have been contacted to confirm whether they can accept and treat the flows at Bran Sands Sewage Treatment Works.
Impact	NWL may be unable to accept the flows, and alternative plans may be needed for the processing of effluent.
Solution	We expect to see confirmation from NWL that the process effluent can be treated at Bran Sands Sewage Treatment Works. We suggest that the water company is contacted as soon as possible to confirm this.

F5 – Infiltration drainage

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 6, Section 6.8.98	
Issue	We acknowledge that the Proposed Development involves a proposal for surface water drainage to discharge to Greatham Creek. Infiltration drainage may not be appropriate.
Impact	Potentially the proposed surface water drainage connection to Greatham Creek could be non-viable.
Solution	We would recommend that enhanced pre application permitting advice is sought on the proposal for surface water discharge to Greatham Creek.

End of Appendix F

Appendix G – Water Resources

G1 – Quantities required for process water/demineralisation or cooling water demands

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 3, Sections 3.2 and 3.7 Chapter 6.14	
Issue	Insufficient detail has been provided on the quantities required for process water/demineralisation or cooling water demands.
Impact	Failure to secure adequate sources of supply and underestimating possible permitting requirements can cause delays if not evaluated during the planning process.
Solution	Provide further information on the quantities of water required.
Additional narrative/explanation There is an opportunity to better inform NWL and wider regional water resources planning if quantities and consumptiveness are known for these water uses. This will facilitate a better evaluation of whether they can be met; over what timescales; and will help to identify any problems that need to be overcome early.	

G2 – Water efficiency

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*. Chapter 3, Sections 3.2 and 3.7 Chapter 6.14	
Issue	A cooling water circulation system including cooling towers, pumps and circuit piping to supply cooling water is proposed. However, alternative options or techniques for cooling, and considerations for water efficiency have not been documented.
Impact	With the large amount of development proposed in the region, water efficiency is critical to effective regional water resources planning and ensuring that future water supply demands can be met.
Solution	The Applicant should consider the water efficiency of the Proposed Development, and document this in the operational design. Best available techniques should be employed for cooling processes.

G3 – Water demands during construction phase

Document Reference(s): *H2NorthEast Project Volume 1: Environmental Impact Assessment Scoping Report*.

Chapter 3, Sections 3.3 and 3.6 Chapter 6.14, Section 6.14.64	
Issue	Water demands during construction have not been identified clearly. It is not clear what volumes of water are required from NWL; what volumes are expected to be achieved through grey water or rainwater harvesting; and what volumes may be used from the surface water or groundwater environment and how this may relate to the surface water management system that will form part of the CEMP.
Impact	Failure to prepare for water requirements for activities such as dust suppression; wheel wash; concrete batching and HDD can result in delays if permits are not in place in good time of commencement.
Solution	Where significant volumes of water are required, we recommend that a full water supply strategy is produced for both construction and operational demands which identifies consumptive uses of water and appraises options for sources of supply. This will enable problem solving of any unavailability issues early on and may expedite the permitting determination process later if it is not intended to be sourced entirely from the water company.

End of Appendix G

Appendix H – Advice to Applicant

Consents Strategy
A number of permits and licenses may be required to facilitate this scheme. Should you wish to disapply any element of these proposals and bring within the scope of the Development Consent Order (DCO) details of this should be provided to the Environment Agency a minimum of 6 months prior to DCO submission.

We will require a consenting strategy document to be submitted in support of the proposals which outlines a programme of managing the various consents and permits, and confirmation of whether this will be subsumed within the DCO process or as standalone permits.

We recommend early engagement with our National Permitting Service (NPS) and full use of their enhanced pre-application advice service to ensure the permitting requirements and implications are fully understood and addressed in good time to inform the Planning Inspectorate (PINS) decision making process. Twin tracking is recommended for those applications considered fundamental to the DCO.

Noise and vibration
Consideration of noise and vibration during operational conditions is recommended as methods to control these pollutants may impact the final designs and will be reviewed during the Environmental Permit and the DCO assessment process. Experience shows several residents in the Cowpen Village area are sensitive to vibrations and low frequency noise.

Due to recent industrial plant closures, human and ecological receptors have become accustomed to lower background noise levels, making any increase to these levels potentially more noticeable. Local engagement on the issue of noise and vibrations is highly recommended.

Environment Agency regulated processes within 2km of the Proposed Development
Not all sites which are regulated by the Environment Agency and located within 2km of the Proposed Development Site have been included in Table 6.3 of the Main Scoping Report. Greenergy at Seal Sands Road, TS2 1UB and the proposed H2Teesside process adjacent to Net Zero Teesside are missing from the list of relevant in-combination impact assessment industrial processes. A review of this data is required to ensure it is up to date prior to DCO and Environmental Permit application submission.

Habitat enhancement measures
The Scoping Report does not specify exactly which habitats are being considered for creation and enhancement which means there is potential for missed opportunities to enhance the condition and scale of watercourses and riparian habitat within the site boundary. Bearing in mind the scale of the project and its proximity to several

designated sites (Site of Special Scientific Interest (SSSI), Ramsar and Special Area(s) of Conservation (SAC)) along with the aquatic wildlife dependant on these habitats, we would recommend the inclusion of in-channel and riparian habitat enhancement measures as part of the scheme, that could potentially be delivered as part of BNG.

BNG

There is a risk that watercourses within the Scoping Boundary may be impacted during the construction and decommissioning phases (e.g. installation of crossings, riparian works). By not assessing watercourse habitats under BNG, the Applicant has not yet committed to leaving a measurably positive impact on watercourses following the Proposed Development.

The Applicant should measure watercourse lengths within the scheme and use the watercourse metric to calculate baseline habitat scores. Propose to achieve a BNG target of at least 10% for watercourses. For potential BNG opportunities, we recommend the Applicant refers to both the mitigation measures within the Water Framework Directive and opportunities identified within any Local Nature Recovery Strategies (LNRS).

BNG guidelines indicate that structures built within 10m of the bank top of a watercourse qualify as encroachment, which may affect the uplift score calculated using the BNG watercourse metric. Please note that the Environment Agency's requirement for Main River easements 8m away from the watercourse bank or landward base of fluvial defence structure/embankment (16m if defence structure is for tidal purposes).

Watercourse crossings

The following are general guiding principles to consider when designing watercourse crossings to avoid negatively affecting geomorphology and natural processes:

- Avoid unnecessary interference with natural processes. For instance, encourage use of trenchless techniques such as HDD to minimise the likelihood of cables entering the water environment.
- Ensure watercourse crossing design is informed by assessment of fluvial processes and geomorphology. For example, depth of HDD crossing should consider the likelihood of vertical channel change.
- Avoid designs which present legacy risks to natural processes and geomorphology beyond the project lifespan. For example, infrastructure such as access tunnels which are left in-situ after decommissioning could be exposed by future river movement, becoming an impediment to natural processes.
- Consider opportunities to deliver WFD mitigation measures as part of the design.

Avoid preventing delivery of mitigation measures, e.g. avoid bringing cables to

surface level in floodplains earmarked for future river restoration.

FRAPs
The Environmental Permitting (England and Wales) Regulations 2016 require a permit to be obtained for any activities which will take place:

- On or within 8 metres of a main river (16 metres if tidal)
- On or within 8 metres of a flood defence structure or culvert (16 metres if tidal)
- On or within 16 metres of a sea defence
- Involving quarrying or excavation within 16 metres of any main river, flood defence (including a remote defence) or culvert
- In a floodplain more than 8 metres from the river bank, culvert or flood defence structure (16 metres if it's a tidal main river) and you don't already have planning permission

For further guidance please visit https://www.gov.uk/guidance/flood-risk-activities-environmental-permits or contact our National Customer Contact Centre on 03702 422 549.

The Applicant should not assume that a permit will automatically be forthcoming once a DCO has been granted, and we advise them to consult us at the earliest opportunity.

If any of the works are likely to require a FRAP under the Environmental Permitting Regulations 2016, we recommend that the applicant informs the Environment Agency whether they are seeking disapplication at the earliest opportunity.

WFD
The Applicant should note that WFD applies to all surface waterbodies, not just those designated for monitoring purposes. Watercourses with a catchment less than 10km^2 connected to a downstream WFD waterbody take the classification of that waterbody.

Operational water use demands
The Applicant proposes to meet the demands of operational water use by using raw water supply from NWL. Whilst water availability in the catchment is good, the increase in demand for water supplied by NWL may be dependent on improvements to existing infrastructure as water is transferred via an extensive network. The water required by the Proposed Development for operational water use (such as process water/demineralisation and cooling) may not be available from NWL at the time of commencement (to be confirmed by NWL).

Early engagement with NWL on timescales and quantities of water is recommended to manage expectations of whether these demands can be met and to properly evaluate any alternative sources of supply options should they be needed.

Watercourse Sensitivity

- Care should be taken by applicants when determining watercourse sensitivity, especially the use of Q95 scores. Rivers with a higher Q95 flow are not more sensitive than rivers with a lower Q95. In the case of water quality, the reverse of this is true, with less dilution meaning a higher sensitivity to change. Some watercourses with low Q95 may also be winterbournes, and therefore cannot accommodate change easily, as they would be dry for most of the year.
- WFD designation is a method of monitoring and classifying the ecological health of the water environment and not an indication of greater or lesser sensitivity to change. Therefore, watercourses with a WFD designation are no more sensitive than those which have not been designated.
- Sensitivity to change cannot be determined from a desk study alone. When determining the sensitivity of a watercourse, the Applicant should ensure that professional judgement and the results of any surveys are also incorporated into the assessment.

Environment Agency Guidance which the Applicant may find useful:
Hydrogen production with carbon capture: emerging techniques - GOV.UK

Dewatering

Dewatering has been identified as necessary for pipeline and hydrogen production facility construction. Permitting requirements have not been evaluated for these activities and should be considered further. Dewatering will require an abstraction licence if it doesn't meet the criteria for exemption in *The Water Abstraction and Impounding (Exemptions) Regulations 2017 Section 5: Small scale dewatering in the course of building or engineering works*. It may also require a discharge permit if it falls outside of our *regulatory position statement for de-watering discharges*.

The Scoping Report states that dewatering water will either be discharged to the Tees or will be tankered off site. In the case of the latter, the licence required will change in nature to being a consumptive abstraction.

Temporary dewatering of wholly or mainly rainwater that has accumulated in an excavation may be exempt from an Environmental Permit for a Water Discharge Activity. More information can be found on our website: Temporary dewatering from excavations to surface water: RPS 261 - GOV.UK. Note that this does not permit discharge of groundwater from a passive or active dewatering activity or permit the abstraction of groundwater.

The Applicant may also need to consider discharge of groundwater, especially if it is contaminated. More information can be found on our website: Discharges to surface water and groundwater: environmental permits - GOV.UK

Water availability for consumptive groundwater abstraction is at face value good in this area, however we recommend pre application advice be sought early on this. If

the dewatering activity can be demonstrated to be discharged to the same source of supply without intervening use (i.e. non-consumptive), this will increase the likelihood of a licence being granted. A dewatering management plan included in the CEMP should outline abstraction and discharge volumes and locations and subsequent licensing requirements.

Abstraction
The Applicant should note that access to water locally (either from surface water or groundwater) has good availability in this area (further detail can be found in the abstraction licensing strategy). However, the determination of any licence requirements (outside of NWL water supply) should not be underestimated given national permitting licence determination timescales and proximity to the Teesmouth and Cleveland Coast SSSI, SPA and Ramsar. The habitats regulations assessment (HRA) described in the report should also seek to inform any abstraction licence applications.

Please note that the typical timescale to process a licence application is 9-12 months. The Applicant may wish to consider whether a scheme-wide dewatering application rather than individual applications would be beneficial. We suggest talking to our National Permitting Service early in the project planning.

We recommend that NWL should be contacted for details of assets and abstractions within the Study Area.

Discharges
We encourage early engagement with enhanced pre-application advice on Environmental Permits where treated water is to be discharged to the River Tees. There is the potential for this discharge (dependent on water quality) to have an impact on fish.

Boreholes to Abstract Water in the Event of a Fire – Groundwater Investigation Consents
The Environment Agency regulates the abstraction of water from surface water and underground sources. An abstraction licence is not needed to install and test a borehole solely for the purpose of firefighting (including training and testing). It is recommended the operator of the site obtains a groundwater investigation consent (under section 32/3 of the Water Resources Act 1991) so they can find out whether there is adequate water available. See Apply for consent to invesitgate a groundwater source - GOV.UK for further information.

Waste on Site
Excavated materials that are recovered via a treatment operation can be re-used on-site under the CL:AIRE Definition of Waste: Development Industry Code of Practice. This voluntary Code of Practice provides a framework for determining whether excavated material arising from site during remediation or land development works

are waste.

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically, and that the permitting status of any proposed on-site operations are clear. If in doubt, the Environment Agency should be contacted for advice at an early stage to avoid any delays.

Note that the excavation of slag and slag containing made ground does not comply with the CL:AIRE DoW CoP because it does not satisfy the four key factors; protection of human health and the environment, suitability for use, certainty of use and quantity of use. Excavated slag material which remains waste can be deposited on-site under an EPR Schedule 22 and deposit for recovery permit.

The Environment Agency recommends that developers should refer to:

- Position statement on the Definition of Waste: Development Industry Code of Practice
- Our website at https://www.gov.uk/government/organisations/environment-agency

Waste to be Taken off Site

Contaminated soil that is, or must be disposed of, is waste. Therefore, its handling, transport, treatment and disposal is subject to waste management legislation, which includes:

- Duty of Care Regulations 1991
- Hazardous Waste (England and Wales) Regulations 2005
- Environmental Permitting (England and Wales) Regulations 2010
- The Waste (England and Wales) Regulations 2011

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically in line with British Standards BS EN 14899:2005 'Characterisation of Waste - Sampling of Waste Materials - Framework for the Preparation and Application of a Sampling Plan' and that the permitting status of any proposed treatment or disposal activity is clear. If in doubt, the Environment Agency should be contacted for advice at an early stage to avoid any delays.

If the total quantity of waste material to be produced at or taken off site is hazardous waste and is 500kg or greater in any 12-month period, the developer will need to register with us as a hazardous waste producer. Refer to our website at www.gov.uk/government/organisations/environment-agency for more information.

Land Contamination Assessments

We expect land contamination assessments to follow the tiered approach laid out in our Land Contamination Risk Management (LCRM) guidance. The preliminary risk assessment (PRA) should include historical plans of the site, an appraisal of the

environmental setting (including geology, hydrogeology, groundwater and surface water receptors, potential contaminants of concern and source areas), an initial conceptual site model (CSM) describing possible pollutant linkages for controlled waters, and identification of potentially unacceptable risks. Land contamination investigations should be undertaken by suitably qualified and experienced professionals and in accordance with BS 5930: Code of practice for ground investigations and BS 10175: Investigation of potentially contaminated sites – code of practice. Soil and water analysis should be fully MCERTS accredited. Investigation, demolition, remediation, or construction works must not create new pathways or linkages to controlled waters. Clean drilling techniques may be required for boreholes that penetrate contaminated ground.

Piling

The Applicant should refer to our 'Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention' National Groundwater & Contaminated Land Centre report NC/99/73. Please note that this guidance document is currently in the process of being updated. The selected method, including environmental mitigation measures, should be presented in a 'Foundation Works Risk Assessment Report', guidance on producing this can be found in Table 3 of 'Piling Into Contaminated Sites'.

Use of Drilling Muds

The use of drilling muds for any necessary directional drilling may require a groundwater activity permit unless the 'de minimis' exemption applies. Early discussion about this is also recommended.

Sustainable Drainage Systems (SuDS)

1. Infiltration SuDS such as soakaways, unsealed porous pavement systems or infiltration basins shall only be used where it can be demonstrated that they will not pose a risk to the water environment.
2. Infiltration SuDS have the potential to provide a pathway for pollutants and must not be constructed in contaminated ground. They would only be acceptable if a phased site investigation showed the presence of no significant contamination.
3. Only clean water from roofs can be directly discharged to any soakaway or watercourse. Systems for the discharge of surface water from associated hard-standing, roads and impermeable vehicle parking areas shall incorporate appropriate pollution prevention measures and a suitable number of SuDS treatment train components appropriate to the environmental sensitivity of the receiving waters.
4. The maximum acceptable depth for infiltration SuDS is 2.0 m below ground level, with a minimum of 1.2 m clearance between the base of infiltration SuDS and peak seasonal groundwater levels.
5. Deep bore and other deep soakaway systems are not appropriate in areas where groundwater constitutes a significant resource (that is where aquifer

yield may support or already supports abstraction).

6. SuDS should be constructed in line with good practice and guidance documents which include the SuDS Manual (CIRIA C753, 2015) and the Susdrain website.

For further information on our requirements with regard to SuDS see our Groundwater protection position statements (2017), in particular Position Statements G1 and G9 – G13 available at: Groundwater protection position statements - GOV.UK

Investigation or Development Work on a Closed Landfill

Environment Agency guidance Landfill and deposit for recovery: aftercare and permit surrender - GOV.UK provides information for operators of permitted landfill sites or deposit for recovery activities. Developers should ensure that works do not prevent the landfill permit holder from complying with their permit, which requires them to prevent or minimise pollution. Where development work is proposed on such a site, ground investigation or other activities that would penetrate or otherwise damage control measures should normally be avoided. This will include the cap, base and side slopes of the site, and may include infrastructure such as leachate and gas collection systems. You should contact your local Environment Agency office:

- Before designing a site investigation on a closed landfill
- Where development work is proposed on a closed landfill

End of Appendix H

[redacted]

From: Sunnyfield House [redacted]@guisboroughtowncouncil.co.uk>
Sent: 21 February 2025 13:05
To: H2 North East
Subject: H2NorthEast Planning

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: EST

> [redacted]

Good afternoon,

With reference the report, Guisborough Town Council would like to be informed of any further developments.

Thank you.

Kind regards,
[redacted],
Receptionist.

Development, Neighbourhoods & Regulatory Services

Email: developmentcontrol@hartlepool.gov.uk

Civic Centre Level 1
Hartlepool TS24 8AY

Tel: 01429 266522
DX60669 Hartlepool-1

Our Ref: H/2025/0043

Your Ref: EN0710005

Contact Officer: [redacted]

10 March 2025

THE PLANNING INSPECTORATE
A66 NORTHERN TRANS-PENNINE PROJECT CASE TEAM

Dear Sir/Madam

TOWN AND COUNTRY PLANNING ACT 1990
PROPOSAL: Adjoining authority consultation for scoping opinion request for proposed H2NorthEast (a carbon capture and storage enabled blue hydrogen production facility of up to 1,065 MW thermal capacity)
LOCATION: LAND AT SEAL SANDS

I refer to the above noted scoping opinion request.

Having viewed the supporting documentation, I have set out the responses I have received from various Hartlepool Borough Council technical consultees below for your consideration:

HBC Traffic and Transport

This proposal may impact access from Hartlepool onto the A19 Trunk Road The application should have a Transport Assessment / Travel Plan. Which identifies possible junction impacts and whether mitigation is required.

HBC Countryside Access Officer

There are no public rights of way (PRoW) concerns with regards to this application and the Council's PRoW.

HBC Ecology

This is a complex project defined as a Nationally Significant Infrastructure Project (NSIP) and being reviewed by the Planning Inspectorate. This is an adjoining authority consultation for an EIA scoping opinion request for the proposed H2NorthEast (a carbon capture and storage enabled blue hydrogen production facility of up to 1,065 MW thermal capacity). In this application the planning authority is the Planning Inspectorate. HBC is being consulted as an Adjoining Authority. We assume that Natural England, Environment Agency and other Local Planning Authorities are being consulted.

The site lies within the Tees catchment which has SPA, Ramsar and SSSI designations. These areas are important for breeding bird / assemblages. This would require Habitat Regulations Assessment (HRA) and potentially an Appropriate Assessment to consider Likely Significant Effects (LSEs) and how to mitigate identified LSEs.

The area is rich for many bird species with the intertidal and river area of particular note. I would expect over-wintering and breeding bird surveys to be completed as part of the assessment.

Habitat surveys should be completed using the UK Habitat Classification system, which would allow development into the Biodiversity Net Gain Requirements.

We would expect scoping of the ecological surveys to identify which groups (e.g. mammals, amphibians, reptiles, invertebrates, marine mammals, etc) will require detailed assessment.

Guidance for Ecological Impact Assessment is provided at:
https://cieem.net/resource/guidelines-for-ecological-impact-assessment-ecia/

HBC Arboricultural Officer:

There are no arboricultural concerns for Hartlepool Borough Council for this proposal.

HBC Planning Policy

Planning Policy often advise that key consultees such as ecology should be contacted but from the consultations that have been sent its clear that key officers have been contacted and it is trusted that they will provide the advice needed.

HBC Economic Development

No objections from Economic Growth on this application.

Other Consultees

Comments were not received from the consultees listed below. You should not take the lack of comments from respective consultees as an indication of no objection or requirements, however should you wish to gain an understanding of the views of additional consultees, I have set out the relevant contact details for your consideration.

HBC Engineering Consultancy: [redacted]@hartlepool.gov.uk
HBC Public Protection: environmental.protection@hartlepool.gov.uk
HBC Community Safety: community.safety@hartlepool.gov.uk
HBC Heritage and Open Spaces: Heritage.Countryside@hartlepool.gov.uk
HBC Estates: customer.service@hartlepool.gov.uk
Tees Archaeology: Heritage.Countryside@hartlepool.gov.uk

If you would like any further information about the Council's decision please contact your case officer Stephanie Bell quoting the reference number given above.

Hartlepool Borough Council will collect and process personal information in line with our legal obligations, details of which can be found on our web site www.hartlepool.gov.uk/GDPR or by telephoning 01429 266522. Personal Information will be handled in accordance with the General Data Protection Regulation.

Yours faithfully

[redacted]
Senior Planning Officer

Chemicals, Explosives and
Microbiological Hazards
Division – Unit 4

NSIP Consultations
Land Use Planning Team
Building 1.2,
Redgrave Court,
Bootle L20 7HS

NSIP.applications@hse.gov.uk

http://www.hse.gov.uk/

For the attention of: **Jack Patten**
Environmental Services
Operations Group 3
Temple Quay House
Temple Quay
Bristol
BS1 6PN

Date: 3rd March 2025

References: CM9 Ref: 4.2.1.7330.
NSIP Ref: EN0710005

Dear Jack,

PROPOSED H2NORTHEAST - EIA SCOPING CONSULTATION AND NOTIFICATION PROPOSAL BY H2NORTHEAST LIMITED
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017 (as amended) REGULATIONS 10 and 11

Thank you for your letter of **11th February 2025** regarding the information to be provided in an environmental statement relating to the above project. HSE does not comment on EIA Scoping Reports but the following information is likely to be useful to the applicant.

HSE's Land Use Planning Advice

Will the proposed development fall within any of HSE's consultation distances?

According to HSE's records, the proposed H2NorthEast project components as specified in the ***Volume II: Environmental Impact Assessment (Scoping Report Figures and Appendices)*** dated **February *2025, Figure 1.1,*** *drawing number* ***30 5601-00, Rev P01***, drawing title *'****Proposed Development Site Boundary***, does appear to cross the Consultation Zones of several Major Accident Hazard (MAH) sites and MAH pipelines. Please see the list attached in Appendix 1 a (MAH sites) & b (MAH pipelines).

The Applicant should make contact with the operators of MAH sites (see Appendix 1 a), to inform an assessment of whether or not the proposed development is vulnerable to a possible major accident.

The Applicant should also make the necessary approaches to the relevant MAH pipeline operators (see Appendix 1 b). There are three particular reasons for this:

i) the pipeline operator may have a legal interest in developments in the vicinity of the pipeline. This may restrict developments within a certain proximity of the pipeline.

ii) the standards to which the pipeline is designed and operated may restrict major traffic routes within a certain proximity of the pipeline. Consequently, there may be a need for the operator to modify the pipeline or its operation if the development proceeds.

iii) to establish the necessary measures required to alter/upgrade the pipeline to appropriate standards.

HSE's Land Use Planning advice would be dependent on the location of areas where people may be present. When we are consulted by the Applicant with further information under Section 42 of the Planning Act 2008, we can provide full advice.

Would Hazardous Substances Consent be needed?

The presence of hazardous substances on, over or under land at or above set threshold quantities (Controlled Quantities) will probably require Hazardous Substances Consent (HSC) under the Planning (Hazardous Substances) Act 1990 as amended. The substances, alone or when aggregated with others for which HSC is required, and the associated Controlled Quantities, are set out in The Planning (Hazardous Substances) Regulations 2015 as amended.

HSC would be required to store or use any of the Named Hazardous Substances or Categories of Substances at or above the controlled quantities set out in Schedule 1 of these Regulations.

If hazardous substances planning consent is required, please consult HSE on the application.

Consideration of risk assessments

Regulation 5(4) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the assessment of significant effects to include, where relevant, the expected significant effects arising from the proposed development's vulnerability to major accidents. HSE's role on NSIPs is summarised in the following Advice Note 11 Annex on the Planning Inspectorate's website - Annex G – The Health and Safety Executive. This document includes consideration of risk assessments on page 3.

Appendix 1

a. Major Accident Hazard sites:

	HSE Reference	MAH site Operator	MAH site Address
1	H0222	British Oxygen Co Ltd	Tees Dock Road, Grangetown, Middlesbrough, Cleveland, TS6 7RT
2	H0302	Calor Gas Ltd	Port Clarence Road, Port Clarence, Middlesbrough TS2 1SF
3	H0389a	CF Fertilisers UK Ltd	Cassel Site, TS23 1QZ
4	H0401	Navigator Terminals North Tees Ltd	Off Huntsman Drive, Port Clarence, Stockton on Tees, TS2 1TT
5	H0402	Sabic UK Petrochemicals Ltd	North Tees Works, Seaton Road, Port Clarence, Middlesbrough, TS2 1TT
6	H0493	Exolum Seal Sands Limited	North Terminal, Seal Sands, Middlesbrough, Cleveland, TS2 1UA
7	H0533	Navigator Terminals Seal Sands Ltd	Seal Sands Road, Middlesbrough, TS2 1UA
8	H0571	Venator Materials Ltd	Greatham Works Tees Road, Hartlepool, TS25 2DD
9	H1261	Vertellus Specialities UK Ltd	Seal Sands Road, Seal Sands, Middlesbrough, Cleveland, TS2 1UB
10	H1272	South Tees Site Company Limited	Teesside Site, Steel House, Redcar, TS10 5QW
11	H1875	Fine Organics Limited	Seal Sands Road, Seal Sands, Middlesbrough, Cleveland, TS2 1UB
12	H2084	Croda Chemicals International Ltd	Teesside Operations, PO Box 54, Wilton, Middlesbrough, TS10 4RG
13	H3318	PX (TGPP) Ltd	Teesside Gas Processing Plant (TGPP), Seal Sands, Cleveland, TS2 1UB
14	H3429	Amoco Cats Terminal	Seal Sands Road, Seal Sands, Middlesbrough, Cleveland, TS2 1UB
15	H3454	Dow (Wilton) Ltd	PO Box 1990, Wilton, Redcar, Cleveland, TS10 4RG
16	H3632	Mitsubishi Chemical UK Ltd	Cassel Works, New Road, Billingham, TS23 1LE
17	H3735	Invista Textiles (UK) Ltd	PO Box 401, Wilton, Redcar, Cleveland, TS6 8JH

18	H3736	Alpek Polyester UK Ltd	PO Box 1923, Wilton, Middlesbrough, TS10 4R
19	H3738	Huntsman Polyurethanes (UK) Ltd	PO Box 54, Wilton Site, Middlesborough, TS6 7SD
20	H3739	Sabic UK Petrochemicals Ltd	Olefins Offices, PO Box 99, Wilton Site, Middlesbrough, TS10 4RG
21	H3980	Dow Chemical Company Ltd	Seal Sands, Middlesbrough, Cleveland, TS2 1UB
22	H4030	Industrial Chemicals Ltd	Clarence Works, Port Clarence, Middlesbrough TS2 1SD
23	H4150	Lundbeck Pharmaceuticals Ltd	CATS Terminal, Seal Sands, Billingham, Middlesbrough, TS2 1UB
24	H4153	Targor Ltd	PO Box 5, Wilton Site, Middlesborough, TS10 4RE
25	H4341	Ineos Chlor Limited	PO Box 54, Wilton Site, Middlesbrough TS6 7SD
26	H4353	Ensus UK Ltd	Middleway, Wilton International, Middlesborough, Cleveland, TS6 8JH
27	H4412	Air Products plc c/o Invista Nylon site	Wilton International, Middlesbrough, Cleveland TS6 7SD
28	H4554	Navigator Terminals North Tees Ltd	Off Huntsman Drive, Port Clarence, Middlesborough, TS2 1TT

b. Major Accident Hazard pipelines:

	HSE Reference	**Transco Reference**	**Pipeline Operator**	**Pipeline**
1	1035636		BOC Limited	Wilton & North Tees Sites - Linkline System 115
2	11856		Air Products (UK) Ltd	Wilton & North Tees Sites - Linkline System 114
3	12241		PX (TGPP) Ltd	Teesside Linkline System 35

4	12548	2741	Northern Gas Networks	Cowpen Bewley to Warden Law
5	12679		RWE nPower plc	NTS to Phillips Cogen Natural Gas Pipeline
6	12745		SembCorp Utilities Teesside Ltd	Teesside Gas Proc Plant to Northern Electric
7	4054731		PX (TGPP) Ltd	Teesside Gas Processing Plant
8	4119046	2775	Northern Gas Networks	Vopak Spur (Off Seal Sands Chemical Supply
9	4226790		Egdon Resources (UK) Ltd	Kirkleatham Section A - Wellsite to Wilton International site boundary
10	4226791		Egdon Resources (UK) Ltd	Kirkleatham Section B - Wilton International site boundary to pressure reduction
11	4226792		Egdon Resources (UK) Ltd	Kirkleatham Section C - pressure reduction to gas usage point
12	4243517		PX (TGPP) Ltd	Breagh A Export Line to TGPP
13	4290210		Sembcorp Utilities (UK) Limited	Extension to Grainco of Veinline V49 on the Wilton International Site
14	4303258		Sembcorp Utilities (UK) Limited	Wilton Gas Line Extension to Lotte LC1 Plant
15	4311955		Millennium EfW	System 131 - EFW Plant
16	4394975		Sembcorp Utilities (UK) Limited	Wilton Gas Line Connection W11
17	4469252		Wood Group UK Ltd	CATS pipeline PL774
18	6710		Sabic UK Petrochemicals Ltd	Trans-Pennine Ethylene Pipeline Wilton/Runcorn
19	6904		Operated by Sabic	ICI Wilton/Grangemouth Ethylene Pipeline
20	7199		Growhow (UK) Ltd	Billingham to North Tees

21	7200		Growhow (UK) Ltd	North Tees to Billingham
22	7800	2057	Northern Gas Networks	Cowpen Bewley / Seal Sands (CH01 / 300mm)
23	7801	2058	Northern Gas Networks	Cowpen Bewley / Seal Sands (CH02 / 200mm)
24	7816	2073	Northern Gas Networks	Seal Sands / Phillips (CH04)
25	7817	2074	Northern Gas Networks	Seal Sands / Rohm Haas (CH05)
26	7818	2075	Northern Gas Networks	BASF No2 Spur (CH06)
27	7819	2076	Northern Gas Networks	BASF No1 Spur (CH07)
28	7820	2077	Northern Gas Networks	Cowpen Bewley / Naisberry (CH08 / 300mm)
29	7823	2080	Northern Gas Networks	Cowpen Bewley / Naisberry (CH11 / 200mm)
30	7824	2081	Northern Gas Networks	B.A.S.F. No.3 Spur (CH12)
31	7858	2115	National Gas	6 Feeder Little Burdon / Billingham
32	7860	2117	National Gas	6 Feeder A178 / Teesside Terminal
33	7861	2118	National Gas	6 Feeder Cowpen Bewley / A178
34	8206	2471	National Gas	13 Feeder Cowpen Bewley / Bishop Auckland
35	8207	2472	Northern Gas Networks	D.T.B.A. Spur (CH23)
36	8353	2630	Northern Gas Networks	Seal Sands Chemicals Supply (Off CH05)

Explosives sites

Explosives Inspectorate has looked at the proposed development site, we agree that based on the proximity of the proposed hydrogen pipeline corridor to the adjacent licensed explosives site HSE would need to review the explosives licence should the proposed development proceed.

Electrical safety

No comment from a planning perspective

At this time, please send any further communication on this project directly to the HSE's designated e-mail account for NSIP applications at nsip.applications@hse.gov.uk. We are currently unable to accept hard copies, as our offices have limited access.

Yours faithfully,

CEMHD4
NSIP Consultation Team

Historic England

Our ref: PL00798166

Your ref: EN0710005

Telephone [redacted]

Dear Sirs

Planning Act 2008 (as amended) and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (The EIA Regulations) – Regulations 10 and 11

Application by H2NorthEast Limited (the applicant) for an Order granting Development Consent for H2NorthEast (the proposed development)

Scoping consultation and notification of the applicant's contact details and duty to make available information to the applicant if requested

Thank you for your letter of 11th February 2025 consulting Historic England about the above EIA Scoping Report.

For those issues within Historic England's remit this report appears to represent an appropriate approach to the potential historic environment issues that the proposed development could impact on.

There clearly are historic environment issues which lie outside of this remit, on which Historic England does not have any comment to make. It clearly is important that the views of the specialist advisors to the Local Authorities on both conservation and archaeology are consulted on the scope and development of appropriate assessment of impact in these areas.

Advice

Our initial review indicates that the proposed development could, potentially, have an impact upon designated heritage assets and their settings in the area. In line with the National Planning Policy Framework (NPPF, paragraph 128), we would therefore expect the Environmental Statement to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and sufficient to understand the potential impact of the proposal on their significance.

To assist in the implementation of national planning policy in relation to this issue Historic England has produced guidance on managing change within the settings of heritage assets. The guidance offers a framework for the consideration of setting, applicable to designated and non-designated heritage assets, and for assessing the implications of development affecting the setting of a heritage asset. It provides the principal Historic England advice on the issue of setting and should be used in conjunction with other relevant guidance. The *Setting of Heritage Assets* is available at www.english-heritage.org.uk/publications/setting-heritage-assets/. We note, and welcome that this guidance has been referenced as part of the Scoping report.

With reference to issues within Historic England's remit, we would draw your attention, in particular, to the following designated heritage assets:

- The Cowpen Bewley Conservation Area, and the individual listed buildings within it.

We note that the potential for impacts on these assets, and the need to scope these within the further assessment work, is included in the scoping report. This is welcomed and supported by Historic England.

As touched on above, this is not an exhaustive list and other heritage assets may also be identified as part of the assessment process which would require appropriate consideration. In particular, we would expect the assessment to clearly demonstrate that the extent of the proposed study area is of the appropriate size to ensure that all heritage assets likely to be affected by this development have been included and can be properly assessed. Methodologies that can help to inform the extent of the study area include a Visual Impact Assessment and the production of a Zone of Theoretical Visibility (ZTV) in line with current guidance. The ZTV of the proposed development should initially be based on topographical data before the impact of existing trees and buildings etc. on lines of sight is assessed.

We would also expect the Environmental Statement to consider the potential impacts which the proposals might have upon those heritage assets which are not designated. The NPPF defines a heritage asset as "a building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest". This includes designated heritage assets and assets identified by the local planning authority (including local listing). This information is available via the local authority Historic Environment Record (www.heritagegateway.org.uk) and relevant local authority staff.

We recommend the need to involve the Conservation Officers at both Stockton and Redcar & Cleveland Councils, and the archaeological staff at both Tees Archaeology and the specialist advisors to Redcar & Cleveland Council, in the development of this assessment. They are best placed to advise on: local historic environment issues and priorities; how the proposal can be tailored to avoid and minimise potential adverse impacts on the historic environment; the

nature and design of any required mitigation measures; and opportunities for securing wider benefits for the future conservation and management of heritage assets.

In general terms, Historic England advises that a number of considerations will need to be taken into account when proposals at this scale are assessed. This includes consideration of the impact of ancillary infrastructure, such as tracks and grid connections, as well as the main development itself:

- The potential impact upon the historic character of the landscape, including landscape features which positively contribute to character.
- Direct impacts on heritage assets (buildings, monuments, sites, places, areas, landscapes), whether designated or not.
- Impacts on the settings of heritage assets since elements of setting can contribute to the significance of a heritage asset. An assessment of the impact on setting will be proportionate to the significance of the asset and the degree to which the proposed changes enhance or detract from its significance and the ability to appreciate the asset. In the consideration of setting a variety of views may make a contribution to significance to varying degrees. These can include long-distance views as well as the inter-visibility between heritage assets or between heritage assets and natural features. For further advice see *The Setting of Heritage Assets*.
- The potential for archaeological remains.
- Effects on landscape amenity from public and private land.
- The cumulative impacts of the proposal.

It is important that the assessment is designed to ensure that all impacts are fully understood. Section drawings and techniques such as photomontages are a useful part of this.

Given the number of designated heritage assets within the area, we would welcome early discussions with you in order to agree the key sites and setting issues which will need to be addressed within the EIA.

If you have any queries about any of the above, or would like to discuss anything further, please contact me.

Yours sincerely

[redacted]

Team Leader – Development Advice, North East and Yorkshire

Historic England, Bessie Surtees House, 41-44 Sandhill, Newcastle-upon-Tyne NE1 3JF
Telephone 0191 403 1635 | historicengland.org.uk

Marine Management Organisation

Marine Licensing
Lancaster House
Hampshire Court
Newcastle upon Tyne
NE4 7YH

T +44 (0)300 123 1032
F+44 (0)191 376 2681
www.gov.uk/mmo

Our reference: DCO/2025/00002
Your reference: EN0710005

H2NorthEast Project team
Planning Inspectorate
h2ne@planninginspectorate.gov.uk
(By Email only)

05 March 2025

Dear Sir/Madam,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11.

MMO scoping consultation response on the application by H2NorthEast Limited (the Applicant) for an Order granting Development Consent (DCO) for the H2NorthEast Project (the Proposed Development).

Thank you for your scoping consultation dated 10 February 2025 and for providing the Marine Management Organisation (MMO) with the opportunity to share our comments with you on the H2NorthEast Project Scoping Report.

The MMO's role in Nationally Significant Infrastructure Projects (NSIPs)

The MMO was established by the Marine and Coastal Access Act 2009 (MCAA 2009) to make a contribution to sustainable development in the marine area and to promote clean, healthy, safe, productive and biologically diverse oceans and seas.

The responsibilities of the MMO include the licensing of construction works, deposits and removals in English inshore and offshore waters and for Northern Ireland offshore waters by way of a marine licence. Inshore waters include any area which is submerged at mean high water spring ("MHWS") tide. They also include the waters of every estuary, river or channel where the tide flows at MHWS tide. Waters in areas which are closed permanently or intermittently by a lock or other artificial means against the regular action of the tide are included, where seawater flows into or out from the area.

In the case of NSIPs, the Planning Act 2008 (the 2008 Act) enables DCOs for projects which affect the marine environment to include provisions which deem marine licences.

As a prescribed consultee under the 2008 Act, the MMO advises developers during pre-application on those aspects of a project that may have an impact on the marine area or those who use it. In addition to considering the impacts of any construction, deposit or removal within the marine area, this also includes assessing any risks to human health, other legitimate uses of the sea and any potential impacts on the marine environment from terrestrial works.

Where a marine licence is deemed within a DCO, the MMO is the delivery body responsible for post-consent monitoring, variation, enforcement and revocation of provisions relating to the marine environment. As such, the MMO has a keen interest in ensuring that provisions drafted in a deemed marine licence ("DML") enable the MMO to fulfil these obligations.

Further information on licensable activities can be found on the MMO's website at https://www.gov.uk/government/collections/planning-and-development-marinelicences

Further information on the interaction between the Planning Inspectorate and the MMO can be found in our joint advice note at https://infrastructure.planninginspectorate.gov.uk/wpcontent/uploads/2013/04/Advice-note-11-Annex-B-MMO.pdf

Consents

The MMO notes that the applicant is speaking to the MMO about the content of the DML.

General Comments

The MMO notes that although the applicant did submit an enquiry regarding EIA Scoping, the estimate was not accepted, and as a result, no MMO case team was in place when the Scoping response was received. The MMO kindly requests that future estimates be accepted within the requested deadline to avoid delays in processing and document review.

Additionally, the MMO notes that the delay has prevented us from consulting with our technical advisors, the Centre for Environment, Fisheries and Aquaculture Science (Cefas). The MMO may recommend further data sources to support assessments following consultation with our technical experts.

If the applicant wishes for us to consult our technical advisors prior to the next statutory deadline, we can facilitate this through our discretionary advice pre-application

discussions. It is noted the MMO will contact our technical advisors during our Preliminary Environmental Information Report (PEIR) review. The MMO also encourages the applicant to engage with key stakeholders during the pre-application process.

Please find attached the scoping opinion of the MMO.

The MMO reserves the right to make further comments on the project throughout the preapplication process and may modify its present advice or opinion in view of any additional information that may come to our attention. This representation is also submitted without prejudice to any decision the MMO may make on any associated application for consent, permission, approval or any other type of authorisation submitted to the MMO either for the works in the marine area or for any other authorisation relevant to the proposed development.

If you require any further information, please do not hesitate to contact me using the details provided below.

Yours Sincerely

[redacted]

Natalie Morton
Marine Licensing Case Officer

D [redacted]
E [redacted]@marinemanagement.org.uk

Scoping Consultation Response

Marine Works (Environmental Impact Assessment) Regulations 2007 ("the Regulations")

Title: H2NorthEast Project

Applicant: H2NorthEast Limited

MMO Reference: DCO/2025/00002

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1 Proposal

The H2NorthEast Project

1.1 Project Background

The proposal is to construct a new blue hydrogen production facility (HPF) located adjacent to the existing CATS Terminal - a natural gas reception and processing terminal located on Seal Sands, Teesside (approximate National Grid Reference (NGR) NZ 519245). The Project is a carbon capture and storage enabled blue HPF of up to 1,065 MW capacity. The proposed development comprises a HPF, carbon dioxide capture and compression facilities and export connection, hydrogen distribution pipelines, and supporting infrastructure. Phase 1 of the Project will provide 355 MW of blue hydrogen to local industrial customers, with Phase 2 increasing the capacity to around 1 GW. New hydrogen distribution pipelines will connect the site to local industrial customers to support decarbonisation of their operations. The carbon dioxide generated and captured by the Project will be exported via a connection to the Northern Endurance Partnership carbon dioxide gathering, compression and transportation infrastructure for permanent storage underground in the Southern North Sea.

The Hydrogen Pipeline will require a crossing of the River Tees. At this early stage in the design and assessment process, a broad corridor is under consideration applying the Rochdale Envelope approach for the River Tees crossing of the Hydrogen Pipeline. It is anticipated that this corridor, and optionality, will be refined down prior to submission of the Application. The Applicant's preferred option is for the installation of a pipeline within an existing Tunnel, a 670 m crossing from Seal Sands to Teesport Docks. It is anticipated that there will be works below Mean High Water Springs (MHWS), but no in-water construction works will take place, Alternative trenchless crossing methods such as a new horizontal directional drilled (HDD) or microbore tunnel (MBT) crossing remains under consideration in the event the existing tunnel is deemed unsuitable. In the event that such crossings are used, it is anticipated that the locations of entry and exit pits would be above MHWS and no drilling or piling would be required in the marine environment. Additionally, the HPF will incorporate a surface water drainage system in which surface water will be appropriately segregated, treated and attenuated prior to discharge. The preferred option is to construct a new drainage outfall into Greatham Creek. This aspect of the design may involve licensable (or exempt) activities, depending on its design.

Due to the nature, scale and elements of the Project, it has been classified as a Nationally Significant Infrastructure Project, as such the applicant is seeking a Development Consent Order (DCO) from the Department of Energy Security and Net Zero to construct and operate the project.

2 Location

The H2NorthEast Project is located in Teesside, in the Northeast of England. The Hydrogen Pipeline will require a crossing of the River Tees, and the route is currently indicative. The following options have been considered: Via an existing tunnel, repurposing of an existing pipeline or alternatively via a new crossing below the bed of the River Tees. The proposed development site boundary is displayed in Figure 1 below.

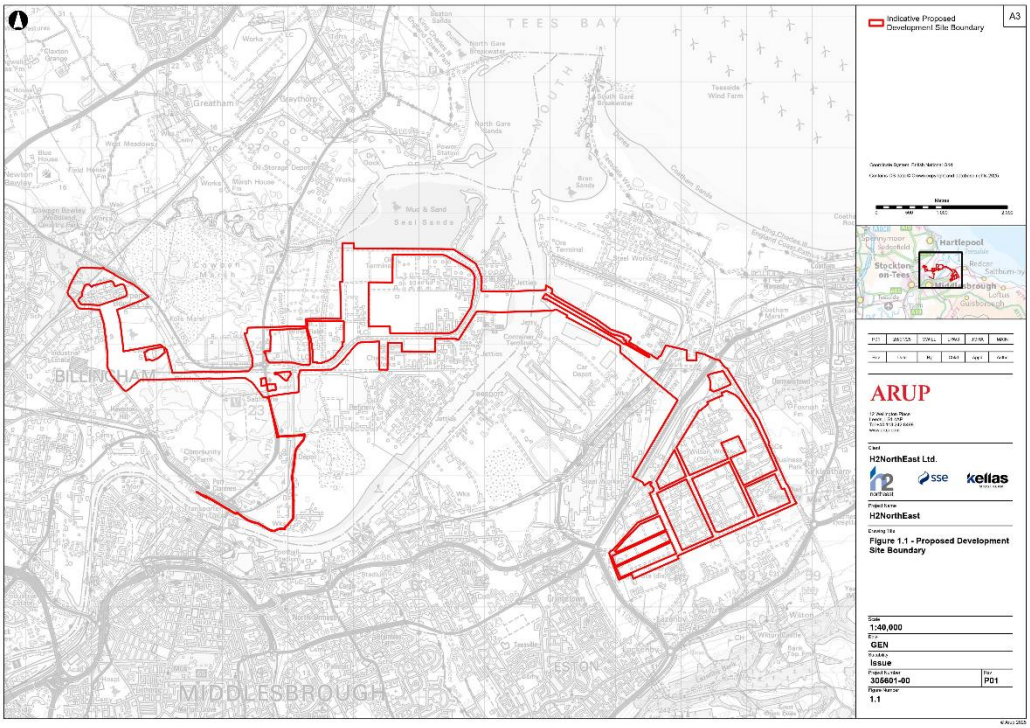

Figure 1: Scoping area of the proposed development

3 Scoping Consultation Response

H2NorthEast Limited has asked the Planning Inspectorate on behalf of the Secretary of State for its opinion (a Scoping Opinion) as to the information to be provided in an Environmental Statement (ES) relating to the Proposed Development. The Planning Inspectorate has consulted the MMO on the Scoping Report titled 'Volume I: Environmental Impact Assessment Scoping Report (Main Report)' and 'Volume II: Environmental Impact Assessment Scoping Report

Figures and Appendices' and asked that the MMO identifies the information that should be provided in the ES. The MMO has reviewed the Scoping Report and broadly agrees with the topics outlined, however has the following comments that should be considered before the Planning Inspectorate issues its Scoping Opinion.

4 Definitions to include within the Environmental Statement

4.1 The MMO asks the applicant to amend the definition of Mean High Water Springs to ensure that it matches the MMO definition, which can be found at https://www.gov.uk/guidance/marine-licensing-definitions#mean-high-watersprings: The height of Mean High Water Springs (MHWS) is the average throughout the year, of two successive high waters, during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides).

4.2 The MMO asks the applicant to include the year e.g. Marine and Coastal Access Act 2009 in the definition

4.3 The MMO asks the applicant to include a definition of Marine Plans within the ES.

5 Project Description and Rochdale Envelope

5.1 Within Chapter 3, The MMO requests that the applicant provides a summary and notes which sections are below mean high-water springs and which may require a DML.

5.2 Within Chapter 3.2.3, The applicant states: 'The Applicant's preferred option is for the installation of the Hydrogen Pipeline and Effluent Connection Corridor pipeline within an existing tunnel. Any tunnel would be a minimum of >10 m below the riverbed level. Any works to install the Hydrogen Pipeline and Effluent Connection Corridor pipeline within such a tunnel would therefore take place below MHWS, and no in-water works including drilling or piling would be required in the marine environment within the River Tees'. The MMO requests that the applicant identifies and confirms if the 'the marine environment within the River Tees' is below MHWS and therefore licensable.

5.3 The MMO requests clarification regarding how the applicant has determined that 10 metres (m) below seabed is suitable and raise concerns regarding the potential of the pipeline to become exposed. Pipeline protection and maintenance must be considered within the Rochdale envelope; and where appropriate within the dML.

5.4 The MMO note that in these large-scale projects there is the potential for unexploded ordnance to be found. Separate investigation and clearance Marine Licences can be applied for post-consent if they are found below mean high water springs. Or the applicant may wish to consider including this activity with their deemed marine licence.

5.5 The MMO welcome the applicant's intention to engage with us regarding the deemed marine licence. The MMO encourage all applicants to use our online tool (Do I need a marine licence? - GOV.UK) to determine if activities are licensable.

5.6 The MMO requests for the full Rochdale envelope to be incorporated. The applicant should apply the worst-case design parameters as part of the Rochdale Envelope and should avoid the term approximately. The MMO note the applicant's intention to do this and welcome the commitment. The MMO also request the worst-case parameters for the maintenance activities are included in the Rochdale Envelope.

6 Legislation and Policies

6.1 The applicant must ensure any dredged material that will be deposited in the marine environment is suitable for disposal at sea. Under the Marine and Coastal Access Act 2009, dredging is defined as 'using any device to move any material (whether or not suspended in water) from one part of the sea or seabed to another part'. The MMO licences disposing of dredged materials at sea and uses guidelines produced by OSPAR to regulate this activity. Details of how to correctly sample and analyse sediment in support of a marine licence application can be found here: Marine licensing: Sediment Analysis - GOV.UK

6.2 The MMO welcome the chapter heading considering marine policies and plans. The MMO request a compliance assessment table is provided within the ES to demonstrate how the applicant has considered all the North East Inshore and North East Offshore Marine policies.

7 Marine Protected Areas

7.1 The MMO note a list of designated sites within the applicant's zone of influence are presented in Table 2.1, Volume 1, Main Report.
The MMO have undertaken a 5km site check from the Seal Sands, Teesside Site, and consider the proposed development is within or may impact the following nationally designated nature conservation site(s). All the below should
be included within the table, unless statutory nature conservation body advice considers there is no pathway to impact.

- Teesmouth and Cleveland Coast Site of Special Scientific Interest (SSSI)
- Teesmouth and Cleveland Coast Special Protection Area (SPA) (UK9006061)
- Teesmouth and Cleveland Coast Ramsar (UK11068)

7.2 The MMO note a 2km zone of influence has been used due to the small scale works in the marine environment. The MMO recommends the applicant considers a 5km zone of influence to account for mobile species, particularly in the event that pipeline protection is required for maintenance. This is in line with the recent Humber Carbon Capture DCO EIA Scoping.

7.3 MMO recommend the applicant engages with the statutory nature conservation body - Natural England, to discuss the impacts of their proposal on the marine protected areas in the vicinity of the works.

8 Environmental Statement Structure

8.1 The MMO asks that the applicant produce two separate chapters per environmental topic (where applicable), one for terrestrial impacts and another for marine impacts, to ensure the appropriate information can be easily identified by the relevant consultees. For instance, the MMO recommends, where appropriate, the following marine chapters are included within the future ES documents:

- Project Description
  - Intertidal Works (Below mean high water springs to mean low water springs (DCO order limit).

- Marine Chapters
  - Marine Physical Processes
  - Marine Sediment and Water Quality
  - Underwater Noise and Vibration
  - Benthic and Intertidal Ecology
  - Fish and Shellfish Ecology
  - Marine Mammals
  - Marine Ornithology
  - Commercial Fisheries
  - Shipping and Navigation
  - Aviation and Radar
  - Infrastructure and Other Users
  - Marine Archaeology and Cultural Heritage
  - Marine Seascape, Landscape and Visual Impacts

8.2. The MMO welcome that the applicant has already provided a chapter titled 'Elements of the proposed development within the marine environment.' The MMO request that within this section the applicant includes the definition of mean high water springs which can be found at: https://www.gov.uk/guidance/marine-licensing-definitions#mean-high-watersprings: The height of Mean High Water Springs (MHWS) is the average throughout the year, of two successive high waters, during a 24-hour period in each month when the range of the tide is at its greatest (Spring tides).

9 Marine Biodiversity

9.1 The MMO welcome the inclusion of the marine biodiversity chapter and recommend the applicant considers including the above topics and uses these as sub-headings (See ES Structure above).

9.2 The MMO request the survey methodology and raw data are included within the PEIR submission to enable our technical advisors to comment on the appropriate survey methods.

9.3 The MMO request Table 6.39: also references the waste framework directive.

9.4 The MMO note a 2km zone of influence has been used due to the small scale of works in the marine environment. The MMO recommend the applicant considers a 5km zone of influence to account for mobile species, particularly in the event that pipeline protection is required for maintenance. This is in line with the recent Humber Carbon Capture DCO EIA Scoping.

9.5 The MMO requests that the applicant states the nearest SAC (see section 6.8.12).

9.6 The MMO requests the applicant confirm if any temporary or permanent habitat loss will occur below mean high water springs. The applicant has noted that there is a loss of foraging resource for birds, but have scoped this out for impact. The MMO defer to Natural England (NE) and RSPB regarding marine ornithology.

9.7 The MMO recommend an invasive species management plan is produced and submitted as part of the PEIR review.

9.8 The MMO note there is the potential for sediment runoff which can impact water bodies. The MMO request this is scoped in as there is no evidence that the sediment run off is not contaminated. While the MMO note that a CEMP is being produced to reduce sediment run off, if excavation is being undertaken below mean high water springs there is greater risk to marine species. In addition, any excavated material that is to be disposed of below mean high water springs must meet the OSPAR convention requirements.

9.9 The MMO consider that maintenance/operational impacts should be scoped in if the pipeline maintenance involves pipeline protection. The MMO note that in the event that pipeline protection is required post-consent the applicant may choose to obtain a separate marine license if this occurs, however the MMO do not guarantee a positive determination.

9.10 The MMO welcomes the applicant's consideration of marine mammals.

Specifically, the MMO note that there is a pupping site near the proposed works. The MMO would like to remind the applicant that it is their responsibility to obtain a wildlife licence if the proposed works are to cause an offence. However, the MMO welcomes the applicant's commitment to avoid the pupping season (October – December).

9.11 Marine Mammals are vulnerable to visual disturbance, vibration and noise disturbance. The MMO would expect to see that the applicant has considered the need for site integrity plans and a marine mammal mitigation protocol. If the applicant does not consider the above necessary, the applicant should provide justification to support this.

9.12 The MMO will provide further comments on the impact to benthic, fish, shellfish and marine mammals receptors following consultation with our technical advisors at the PEIR stage.

10 Coastal Processes

10.1 The MMO asks the applicant to model coastal processes over time; and to review the proposed depth of the pipeline. The MMO notes that the applicant has stated that the pipeline will be a minimum of 10m deep below the riverbed at the deepest point of the crossing if a new HDD or MBT crossing is required below the river Tees. The 10m depth below the riverbed seems shallow. Please confirm how coastal processes have been taken into consideration to ensure natural processes won't expose the pipeline. The methodology of the coastal processing modelling; and the data sources should be provided within the ES. Coastal process monitoring should be undertaken in the event that pipeline protection is required as part of the operation and maintenance over the lifetime of the project.

10.2 Fisheries

10.2 The MMO asks the applicant to consider the risks of the works; Especially if the pipeline becomes exposed to commercial fisheries, within a commercial fisheries chapter of the ES. For example, trawlers are at risk of snagging on exposed pipelines.

10.3 Air Quality

10.3.1 The MMO has no comments on Chapter 6.1, Air Quality.

10.3.2 The MMO defer to Natural England (NE) regarding the impacts of air pollution on the designated sites.

10.4 Biodiversity

10.4.1 The MMO request the heading for this is clarified to be terrestrial and freshwater biodiversity. The MMO welcome that coastal priority habitats identified are also considered within the Marine Diversity chapter. The MMO defers comment to Natural England (NE) and Environment Agency (EA).

10.5 Climate Change and Resilience

10.5.1 The MMO has no comments to make on this chapter.

10.6 Cultural Heritage

10.6.1 The MMO has no comments to make and defers comment to Historical England (HE).

10.7 Greenhouse Gases

10.7.1 The MMO has no comments to make on this chapter.

10.8 Ground Conditions

10.8.1 The MMO has no comments to make on this chapter at this stage, however if material is to be removed from the seabed the MMO would welcome further discussions with the applicant.

10.9 Landscape and Visual Amenity

10.9.1 The MMO have no comments to make on this chapter.

10.10 Material assets and Waste

10.10.1 The MMO defers to the Environment Agency (EA).

10.11 Major Accidents and Disasters

10.11.1 The MMO have no comments on Chapter 6.10, Major accidents and disasters.

10.12 Noise and Vibration

10.12.1 No comments – MMO noted the applicant has considered noise and vibration on marine receptors in the marine biodiversity chapter. This should be clearly split into subheadings.(See ES structure in 8.1)

10.13 Socioeconomics

10.13.1 The MMO has no comments on Chapter 6.12, Socioeconomics.

10.14 Traffic and Transportation

10.14.1 The MMO have no comments to make on this chapter.

10.15 Water Environment

10.15.1 The MMO request clarification that this is the freshwater and marine environment that is discussed in the chapter heading. The MMO recommends the marine environment is split from the freshwater. (See ES structure in 8.1). The MMO defers to the Environment Agency (EA) regarding water quality.

10.16 Human Health

10.16.1 The MMO have no comments to make on this chapter.

10.17 Cumulative Impacts & In-Combination Impacts

10.17.1 The MMO has reviewed chapter 5, Cumulative and Combined Effects, and recommends the applicant considers a minimum of a 5Km study area.

10.18 Decommissioning

10.18.2 The MMO also welcomes that decommissioning has been considered for each chapter. The MMO note that the decommissioning environmental plan will be developed and agreed with the Environment Agency. The MMO request that we are consulted if any decommissioning is undertaken below mean high water springs. The MMO also recommends the applicant engages with Natural England regarding the decommissioning.

10.19 Draft register of commitments

10.19.1 The MMO welcome the production of a draft register of commitments. The applicant should also consider including;

- Outline project environmental management plan
- Outline scour and pipeline protection plan
- Outline fisheries liaison and coexistence plan (if a pathway is identified)
- Outline vessel traffic monitoring plan
- Outline marine mammal mitigation protocol
- In principle monitoring plan

10.20 General Comments

10.20.1 The MMO asks the applicant to list the MMO as a statutory consultee as the DCO contains a deemed marine licence.

11 Conclusion

The topics highlighted in this scoping opinion must be assessed during the EIA process and the outcome of these assessments **must** be documented in the ES in support of the Development Consent Order and Deemed Marine Licence application and any associated planning application(s). This statement, however, should not necessarily be seen as a definitive list of all EIA requirements. Given the scale and programme of these planned works other work may prove necessary.

[redacted]
Marine Case Officer

[redacted]

05/03/2025

Helen Duncan
Maritime and Coastguard Agency
Bay 2/24
Spring Place
105 Commercial Road
Southampton
SO15 1EG

www.gov.uk/mca

Your Ref: EN0710005

11 March 2025

Via email: h2ne@planninginspectorate.gov.uk

Dear Planning Inspectorate

Planning Act 2008 (as amended) and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (The EIA Regulations) – Regulations 10 and 11

Application by H2NorthEast Limited (the applicant) for an Order granting Development Consent for H2NorthEast (the proposed development)

Thank you for your letter dated 11 February 2025 inviting the Maritime and Coastguard Agency (MCA) to comment on the Scoping Report for the construction, operation (including maintenance where relevant) and eventual decommissioning of a carbon capture and storage (CCS) enabled blue hydrogen production facility (HPF) and hydrogen distribution pipeline network on land at Seal Sands, in Stockton-on-Tees and Redcar and Cleveland, Teesside.

The project forms part of The East Coast Cluster (ECC) which includes the Net Zero Teesside (NZT) CO2 Pipeline Project that the Proposed Development intends to discharge captured CO2 into. The CO2 transportation and storage (T&S) network will deliver the infrastructure to capture CO2 from a range of emitters across Teesside and transport it offshore for permanent storage underground in the Southern North Sea.

The MCA has an interest in the works associated with the marine environment, and the potential impact on the safety of navigation, access to ports, harbours and marinas and any impact on our search and rescue obligations. The MCA would expect any works in the marine environment to be subject to the appropriate consents under the Marine and Coastal Access Act 2009 before carrying out any marine licensable works.

We note the Proposed Development would comprise (but is not limited to):

- **A CO_2 export connection** for the purposes of CCS, and **hydrogen distribution pipelines** 'the Hydrogen Pipeline(s)' stretching from Cowpen Bewley in the west to Wilton in the east.
- **Hydrogen Pipeline (east)**: new hydrogen transmission/ distribution pipeline and associated AGI from the HPF Area under the River Tees,
- **Effluent Water Connection Corridor**: a new dedicated effluent pipeline from the HPF Area to the NWL Bran Sands Water Treatment Facility located on the eastern bank of the River Tees, near Redcar.
- **Wastewater Connection Corridor**: Proposed replacement infrastructure to allow uncontaminated surface runoff and treated wastewater produced at the HPF to discharge from site. The preferred option is for this treated wastewater to discharge to Greatham Creek

We note that the Proposed Development Site does not include the proposed CO2 T&S pipeline route as this is already consented by third-parties (NZT) although the cumulative effects of this development will be considered in the EIA.

The Scoping report has been considered by representatives of UK Technical Services Navigation and we would like to comment as follows;

1. We note that the Hydrogen Pipeline will require a crossing of the River Tees via an existing tunnel, repurposing of an existing pipeline or alternatively via a new crossing below the bed of the River Tees. At this early stage in the design and assessment process, a broad corridor is under consideration applying the Rochdale Envelope approach for the Hydrogen Pipeline crossing of the River Tees. It is anticipated that this corridor, and optionality, will be refined down prior to submission of the Application.
2. The pipeline installation includes river crossings for the River Tees which falls within the jurisdiction of a Statutory Harbour Authority (SHA) (PD Ports). Therefore, PD ports is responsible for the safety of navigation within their waters. The SHA should be consulted on any plans for works within or below their waters. The MCA would encourage the applicant to work with the SHA to develop a robust Safety Management System (SMS) for the project in accordance with the Port Marine Safety Code (PMSC) and its associated Guide to Good Practice, to ensure that the risk and impact on other marine users are As Low As Reasonably Practicable (ALARP).

3. We further note that the Wastewater Connection Corridor is anticipated to involve *"the construction of a new outfall at Greatham Creek which may involve licensable (or exempt) activities, depending on its design"*. We note that the applicant has engaged in consultation with the Marine Management Organisation (MMO) to discuss licensing requirements of potential works in the marine environment which we welcome.

4. We understand from H.3.3 in the Appendix to the Scoping Report that *"at Greatham Creek, works to install the outfall would, as far as reasonably practicable, be undertaken from landward side to avoid the need for in-river works; however the potential for in-river works cannot yet be ruled out and therefore this is also included in the Study Area"* also that *"the Applicant's preferred option is for the installation of a pipeline within an existing tunnel….. and that alternative trenchless crossing methods such as a new horizontal directional drilled (HDD) or microbore tunnel (MBT) crossing also remain under consideration. In the event that such crossings are used, it is anticipated that the locations of entry and exit pits would be above MHWS and no drilling or piling required would be required in the marine environment*".

However, in Section H.3.6 of the Appendix, although no riverside construction is anticipated, it is stated that *"Vessels may be required to deliver some materials, and these will use existing commercial ports*". Therefore, the MCA would like to ensure that the worst case scenario for shipping and other marine users is suitably assessed going forward. We understand that *"A Framework Construction Environmental Management Plan (CEMP) will be prepared to accompany the Application which will incorporate standard industry best practice, considered as embedded measures, as well as any further mitigation that is deemed required as a result of the EIA process"* which we welcome.

5. We note that the applicant will undertake a HAZID evaluation assessment covering Major accidents and disasters on the proposed development and the MCA would like to be assured that this would cover any impacted shipping receptors.

6. In table 8.1 Summary of the potential significant effects to be considered in the ES, it says that *"No in-river works are proposed as part of the dewatering or pipeline installation within existing tunnels or for any MBT/ HDD option"*, however the MCA would like to be assured that the worst case scenario for a potential increase in vessel traffic and safety of navigation is being assessed going forward.

7. We are content that the Cumulative effects of the proposed development are assessed as the project intersects with a large number of consented and other projects in development.

The MCA would expect any impact on shipping and navigation to be considered by the applicant and any works in the marine environment (so called "in-river works") to be subject to the appropriate marine licensing regime. The refined details of the proposed works below the Mean High-Water Spring (MHWS) will need to be provided in due course and reassurance that any impact on other marine users has been suitably addressed.

I hope you find this useful at this scoping stage.

Yours faithfully,

[redacted]
Marine Licensing Project Lead
UK Technical Services Navigation

The Coal Authority

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG
T: 01623 637 119 (Planning Enquiries)
E: planningconsultation@coal.gov.uk
W: www.gov.uk/coalauthority

For the attention of: Mr J Pattern – EIA Advisor
Planning Inspectorate – Environmental Services

By Email: h2ne@planninginspectorate.gov.uk

5th March 2025

Dear Mr Pattern

Re: EN0710005 - Application by H2NorthEast Limited for an Order granting Development Consent for H2NorthEast

Thank you for your notification of the 11th February 2025 seeking the views of the Coal Authority on the above.

The Coal Authority is a non-departmental public body sponsored by the Department for Energy Security and Net Zero. As a statutory consultee, the Coal Authority has a duty to respond to planning applications and development plans in order to protect the public and the environment in mining areas. For clarity the Coal Authority is now trading under the business name the Mining Remediation Authority.

The Coal Authority are a statutory consultee under Schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, where projects fall within areas of past, present or future coal mining.

The Planning team at the Coal Authority have reviewed the coal mining data we hold against the areas proposed for the H2NorthEast project. I can confirm that based on the area provided at Picture 1.1 The Proposed Development Site, in the EIA Scoping Report, in respect of the extent of the project none of the areas are where our records indicate that coal mining features at surface or shallow depth are present that may pose a risk to surface stability. The records we hold indicate that the extent of the site identified for the project lies outside of the defined coalfield.

Having reviewed the EIA Scoping Report we note that reference is, quite rightly, not made to risks posed by past coal mining activity. On the basis that the proposed H2NorthEast Project does not lie within the defined coalfield I can confirm that we have no specific comments to make on this project or the content of the Scoping Report.

If you would like to discuss this matter further please do not hesitate to contact me.

Yours sincerely

[redacted]

[redacted]

Principal Planning & Development Manager

Disclaimer

The above consultation response is provided by the Coal Authority as a statutory consultee and is based upon the latest available data and the electronic consultation records held by the Coal Authority since 1 April 2013. The comments made are also based on the information provided to the Coal Authority by the Local Planning Authority and/or information that has been published on the Council's website for consultation purposed in relation to this specific planning application. The views and conclusions contained in this response may be subject to review and amendment by the Coal Authority if additional or new data/information (such as a revised Coal Mining Risk Assessment) is provided by the Local Planning Authority or the applicant for consultation purposes.

[redacted]

From: [redacted]@mod.gov.uk
Sent: 28 February 2025 10:45
To: H2 North East
Subject: 20250228_MOD_Response_EN0710005_DIO_10066293

Follow Up Flag: Follow up
Flag Status: Flagged

[redacted]

FAO: Jack Patten.

Thank you for consulting the Ministry of Defence (MOD) on S36 Scoping Application reference EN0710005, MOD reference DIO 10066293.
The Defence Infrastructure Organisation (DIO) Safeguarding Team represents the MOD as a consultee in UK planning and energy consenting systems to ensure that development does not compromise or degrade the operation of defence sites such as aerodromes, explosives storage sites, air weapon ranges, and technical sites or training resources such as the Military Low Flying System.
I can confirm that, following review of the application documents, the proposed development falls outside of MOD safeguarded areas and does not affect other defence interests. The MOD, therefore, has no objection to the development proposed.
I trust this is clear however should you have any questions please do not hesitate to contact me.

Best wishes,

[redacted] | Estates Safeguarding Officer

Defence Infrastructure Organisation
Estates | Safeguarding
DIO Head Office | St George's House | DMS Whittington | Lichfield | Staffordshire | WS14 9PY
[redacted]mod.gov.uk

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Warwick Technology Park
Gallows Hill, Warwick
CV34 6DA

+44 (0) 1926 65 3000
nationalgas.com

Submitted via email to: h2ne@planninginspectorate.gov.uk

Date: 10th March 2025

Dear Sir/Madam,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11

Application by H2NorthEast Limited (the Applicant) for an Order granting Development Consent for the H2NorthEast (H2NE) Project (the Proposed Development)

I refer to your email dated 11/02/2025 regarding the above proposed DCO. This is a response on behalf of National Gas Transmission (NGT). Having reviewed the scoping consultation documents, NGT wishes to make the following comments regarding gas infrastructure which may be affected by proposals.

NGT has 4 feeder mains located within or in proximity to the Order limits. Details of this infrastructure is as follows:

- Feeder Main – FM06 – Wolviston to Cowpen Bewley
- Feeder Main – FM13 – Cowpen Bewley to Bishop Auckland
- Feeder Main – FM06 – Little Burdon to Billingham ICI
- Feeder Main – FM06 – Cowpen Bewley to Teeside Terminal
- NG Leasehold – CE185475
- NG Leasehold – CE150130
- NG Leasehold – CE134288
- Cathodic Protection Groundbeds/TR
- Ancillary apparatus

Please note that NGT has existing easements for these pipelines which provides rights for ongoing access and prevents the erection of permanent / temporary buildings/structures, change to existing ground levels or storage of materials etc within the easement strip.

You should also be aware of NGT's guidance for working in proximity to its assets, further guidance and links are available as follows.

CATHODIC PROTECTION SYSTEM

To ensure a high level of safety and reliability in operation, National Gas Transmission's assets are protected by a cathodic protection system. It is essential that buried steel pipework associated with the transmission and distribution of natural gas is designed, installed, commissioned and maintained to withstand the potentially harmful effects of corrosion and that

the corrosion control systems employed are monitored to ensure continued effectiveness. Installations in the vicinity of National Gas Transmission's assets which may potentially interfere with the cathodic protection system must be assessed and approved by National Gas Transmission, and appropriate control measures must be put in place where required.

Installations which have the potential to interfere with National Gas Transmission's Cathodic protection system include (but are not limited to):

1. High voltage cable crossings and parallelism

2. High voltage ac pylon parallelism

3. Battery Energy Storage Systems

4. Third party pipelines with cathodic protection systems

5. PV Solar arrays

Further information on D.C interference can be found in UKOPA/GPG/031 Edition C Microsoft Word - UKOPA GPG 031 DC Interference Ed 1.docx

Microsoft Word - UKOPA GPG 031 DC Interference Ed 1.docx (hold ctrl and click to access)Further information on A.C. interference can be found in UKOPA/GPG/027 UKOPA Good Practice GuideUKOPA Good Practice Guide (hold ctrl and click to access)

The safe limits for transfer voltage and impressed current that a high-pressure gas pipeline can be exposed to are outlined in T/PL/ECP/1, T/PL/ECP/2 and BS EN 50122-1. These are the safe limits for non-electrically trained personnel.

Where the Promoter intends to acquire land, extinguish rights, or interfere with any of NGT's apparatus, NGT will require appropriate protection and further discussion on the impact to its apparatus and rights including adequate Protective Provisions. A Deed of Consent will also be required for any works proposed within the easement strip.

Key Considerations:

- NGT has a Deed of Grant of Easement for each pipeline, which prevents the erection of permanent / temporary buildings, or structures, change to existing ground levels, storage of materials etc.

- Please be aware that written permission is required before any works commence within the NGT easement strip. Furthermore a Deed of Consent will be required prior to commencement of works within NGT's easement strip subject to approval by NGT's plant protection team.

- Any large installations which may result in a large population increase in the vicinity of a high pressure gas pipeline must comply with the HSE's Land Use Planning methodology, and the HSE response should be submitted to National Gas Transmission for review

- The below guidance is not exhaustive and all works in the vicinity of NGT's asset shall be subject to review and approval from NGT's plant protection team in advance of commencement of works on site.

General Notes on Pipeline Safety:

- You should be aware of the Health and Safety Executives guidance document HS(G) 47 "Avoiding Danger from Underground Services", and NGT's Dial Before You Dig Specification for Safe Working in the Vicinity of NGT Assets. There will be additional requirements dictated by NGT's plant protection team.

- NGT will also need to ensure that its pipelines remain accessible during and after completion of the works.

- Our pipelines are normally buried to a depth cover of 1.1 metres, however actual depth and position must be confirmed on site by trial hole investigation under the supervision of a NGT representative. Ground cover above our pipelines should not be reduced or increased.

- If any excavations are planned within 3 metres of NGT High Pressure Pipeline or, within 10 metres of an AGI (Above Ground Installation), or if any embankment or dredging works are proposed then the actual position and depth of the pipeline must be established on site in the presence of a NGT representative. A safe working method agreed prior to any work taking place in order to minimise the risk of damage and ensure the final depth of cover does not affect the integrity of the pipeline.

- Below are some examples of work types that have specific restrictions when being undertaken in the vicinity of gas assets therefore consultation with NGT's Plant Protection team is essential:

  - Demolition
  - Blasting
  - Piling and boring
  - Deep mining
  - Surface mineral extraction
  - Landfilling
  - Trenchless Techniques (e.g. HDD, pipe splitting, tunnelling etc.)
  - Wind turbine installation - minimum separation distance of 1.5x the mast/hub height is required, and any auxiliary installations such as cable or track crossings will require a deed of consent.
  - Solar farm installation
  - Tree planting schemes

Traffic Crossings:

- Where existing roads cannot be used, construction traffic should ONLY cross the pipeline at agreed locations.

- Permanent road crossings will require a surface load calculation, and will require a deed of consent.

- The pipeline shall be protected, at the crossing points, by temporary rafts constructed at ground level. The third party shall review ground conditions, vehicle types and crossing frequencies to determine the type and construction of the raft required.

- The type of raft shall be agreed with NGT prior to installation.

- No protective measures including the installation of concrete slab protection shall be installed over or near to the NGT pipeline without the prior permission of NGT

- NGT will need to agree the material, the dimensions and method of installation of the proposed protective measure.

- The method of installation shall be confirmed through the submission of a formal written method statement from the contractor to NGT.

- An NGT representative shall monitor any works within close proximity to the pipeline to comply with NGT specification T/SP/SSW22

New Asset Crossings:

- New assets (cables/pipelines etc) may cross the pipeline at perpendicular angle to the pipeline i.e. 90 degrees.

- The separation distance for a cable >33kV is 1000mm and pre and post energisation surveys may be required at National Gas Transmission's discretion. A risk assessment/method statement will need to be provided to, and accepted by National Gas Transmission prior to the deed of consent being agreed. Where a new asset is to cross over the pipeline a clearance distance of 0.6 metres between the crown of the pipeline and underside of the service should be maintained. If this cannot be achieved the service shall cross below the pipeline with a clearance distance of 0.6 metres.

- A new service should not be laid parallel within an easement strip

- Clearance must be at least 600mm above or below the pipeline

- An NGT representative shall approve and supervise any cable crossing of a pipeline.

- A Deed of Consent is required for any cable crossing the easement

Where the promoter intends to acquire land, extinguish rights, or interfere with any of NGT apparatus, protective provisions will be required in a form acceptable to it to be included within the DCO. NGT requests to be consulted at the earliest stages to ensure that the most appropriate protective provisions are included within the DCO application to safeguard the integrity of our apparatus and to remove the requirement for objection.

Adequate access to NGT pipelines must be maintained at all times during construction and post construction to ensure the safe operation of our network.

Yours Faithfully

Asset Protection Team

Further Safety Guidance

To download a copy of the HSE Guidance HS(G)47, please use the following link:

https://www.hse.gov.uk/pubns/books/hsg47.htm

Working Near National Gas Assets

https://www.nationalgas.com/land-and-assets/working-near-our-assets

Specification for Safe Working in the Vicinity of National Gas High Pressure Pipelines and Associated Installations

https://www.nationalgas.com/document/82951/download

Tree Planting Guidance

https://www.nationalgas.com/document/82976/download

Excavating Safely

https://www.nationalgas.com/document/82971/download

Dial Before You Dig Guidance

https://www.nationalgas.com/document/128751/download

Essential Guidance:

https://www.nationalgas.com/gas-transmission/document/82931/download

Solar Farm Guidance

https://www.nationalgas.com/document/82936/download

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Gallows Hill, Warwick
CV34 6DA

[redacted]
Development Liaison Officer
Land, Planning and External Affairs
[redacted]@nationalgrid.com
[redacted]

www.nationalgrid.com

SUBMITTED ELECTRONICALLY:
h2ne@planninginspectorate.gov.uk

10 March 2025

Dear Sir/Madam

APPLICATION BY H2NorthEast Limited (THE APPLICANT) FOR AN ORDER GRANTING DEVELOPMENT CONSENT FOR THE H2NORTHEAST (THE PROPOSED DEVELOPMENT)

SCOPING CONSULTATION RESPONSE

I refer to your letter dated 11th February 2025 in relation to the above proposed application. This is a response on behalf of National Grid Electricity Transmission PLC (NGET).

Having reviewed the scoping report, I would like to make the following comments regarding NGET existing or future infrastructure within or in close proximity to the current red line boundary.

NGET has high voltage electricity overhead transmission lines, underground cables and a high voltage substation within the scoping area. The overhead lines and substation forms an essential part of the electricity transmission network in England and Wales.

Existing Infrastructure

Substation

- SALTHOLME 275 kV Substation
- SALTHOLME 132 kV Substation
- Associated overhead and underground apparatus including cables

- TOD POINT 275 kV Substation
- TOD POINT 66 kV Substation
- Associated overhead and underground apparatus including cables

- WILTON 275KV Substation

- GREYSTONES A 275KV Substation
- GREYSTONES B 275KV Substation
- GREYSTONES 66KV Substation

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Overhead Lines

4TH 275 kV OHL	Hartlepool – Saltholme
	Hartlepool – Tod Point
4TG 275 kV OHL	Hartlepool – West Boldon
	Hartlepool – Hartmoor
ZZA 400 kV OHL	Hartlepool – West Boldon
	Hartlepool – Hartmoor
	Hartlepool – Saltholme
	Hartlepool – Tod Point
	Lackenby – Norton
	Hartlepool – Tod Point
YYJ 400 kV OHL	Lackenby – Norton 1
	Norton – Saltholme
YYQ 275 kV OHL	Hartlepool – Tod Point
	Lackenby – Tod Point
XA 400 kV OHL	Lackenby – Norton 1
	Hartlepool – Tod Point
YYX 275kV OHL	Greystones A- Lackenby 1
	Greystones A- Lackenby 2
YYV 275 kV OHL	Greystones B Lackenby 3
	Greystones B Lackenby 4

Associated underground apparatus including cables

Cable Apparatus

- Grangetown - Lackenby 275kV underground cable
- Cable Fibre

I enclose plans showing the location of NGET's apparatus in the scoping area.

New infrastructure

Please refer to the Holistic Network Design (HND) and the National Grid ESO website to view the strategic vision for the UK's ever growing electricity transmission network. https://www.nationalgrideso.com/future-energy/the-pathway-2030-holistic-network-design/hnd'

Onshore Infrastructure

- **SALTHOLME Substation expansion; a substation expansion is required to facilitate customer connections.**

NGET wish to lodge a holding objection to this proposed application and NGET should be engaged to fully explore the feasibility of this option without comprise to proposed NGET works.

NGET requests that all existing and future assets are given due consideration given their criticality to distribution of energy across the UK. We remain committed to working with the promoter in a proactive manner, enabling both parties to deliver successful projects wherever reasonably possible. As such we encourage that ongoing discussion and consultation between both parties is maintained on interactions with existing or future assets, land interests, connections or consents and any other NGET interests which have the potential to be impacted prior to submission of the Proposed DCO.

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The Great Grid Upgrade is the largest overhaul of the electricity grid in generations, we are in the middle of a transformation, with the energy we use increasingly coming from cleaner greener sources. Our infrastructure projects across England and Wales are helping to connect more renewable energy to homes and businesses. To find out more about our current projects please refer to our network and infrastructure webpage. https://www.nationalgrid.com/electricity-transmission/network-and-infrastructure/infrastructure-projects. Where it has been identified that your project interacts with or is in close proximity to one of NGET's infrastructure projects, we would welcome further discussion at the earliest opportunity.

These projects are all essential to increase the overall network capability to connect the numerous new offshore wind farms that are being developed, and transport new clean green energy to the homes and businesses where it is needed.

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Specific Comments – Electricity Infrastructure:

- NGET's Overhead Line/s is protected by a Deed of Easement/Wayleave Agreement which provides full right of access to retain, maintain, repair and inspect our asset

- Statutory electrical safety clearances must be maintained at all times. Any proposed buildings must not be closer than 5.3m to the lowest conductor. NGET recommends that no permanent structures are built directly beneath overhead lines. These distances are set out in EN 43 – 8 Technical Specification for "overhead line clearances Issue 5 (2019)".

- If any changes in ground levels are proposed either beneath or in close proximity to our existing overhead lines then this would serve to reduce the safety clearances for such overhead lines. Safe clearances for existing overhead lines must be maintained in all circumstances.

- The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's (www.hse.gov.uk) Guidance Note GS 6 "Avoidance of Danger from Overhead Electric Lines" and all relevant site staff should make sure that they are both aware of and understand this guidance.

- Plant, machinery, equipment, buildings or scaffolding should not encroach within 5.3 metres of any of our high voltage conductors when those conductors are under their worse conditions of maximum "sag" and "swing" and overhead line profile (maximum "sag" and "swing") drawings should be obtained using the contact details above.

- If a landscaping scheme is proposed as part of the proposal, we request that only slow and low growing species of trees and shrubs are planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.

- Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or "pillars of support" of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation ("pillar of support") drawings can be obtained using the contact details above.

- NGET high voltage underground cables are protected by a Deed of Grant; Easement; Wayleave Agreement or the provisions of the New Roads and Street Works Act. These provisions provide NGET full right of access to retain, maintain, repair and inspect our assets. Hence we require that no permanent / temporary structures are to be built over our cables or within the easement strip. Any such proposals should be discussed and agreed with NGET prior to any works taking place.

- Ground levels above our cables must not be altered in any way. Any alterations to the depth of our cables will subsequently alter the rating of the circuit and can compromise the reliability, efficiency and safety of our electricity network and requires consultation with National Grid prior to any such changes in both level and construction being implemented.

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To download a copy of the HSE Guidance HS(G)47, please use the following link:
http://www.hse.gov.uk/pubns/books/hsg47.htm

Further Advice

We would request that the potential impact of the proposed scheme on NGET's existing and future assets as set out above and including any proposed diversions is considered in any subsequent reports, including in the Environmental Statement, and as part of any subsequent application.

Where any diversion of apparatus may be required to facilitate a scheme, NGET is unable to give any certainty with the regard to diversions until such time as adequate conceptual design studies have been undertaken by NGET. Further information relating to this can be obtained by contacting the email address below.

Where the promoter intends to acquire land, extinguish rights, or interfere with any of NGET apparatus, protective provisions will be required in a form acceptable to it to be included within the DCO.

NGET requests to be consulted at the earliest stages to ensure that the most appropriate protective provisions are included within the DCO application to safeguard the integrity of our apparatus and to remove the requirement for objection. All consultations should be sent to the following email address: **box.landandacquisitions@nationalgrid.com**

I hope the above information is useful. If you require any further information, please do not hesitate to contact me.

The information in this letter is provided not withstanding any discussions taking place in relation to connections with electricity customer services.

Yours faithfully

[redacted]

Development Liaison Officer
Commercial and Customer Connections
Land, Planning and External Affairs

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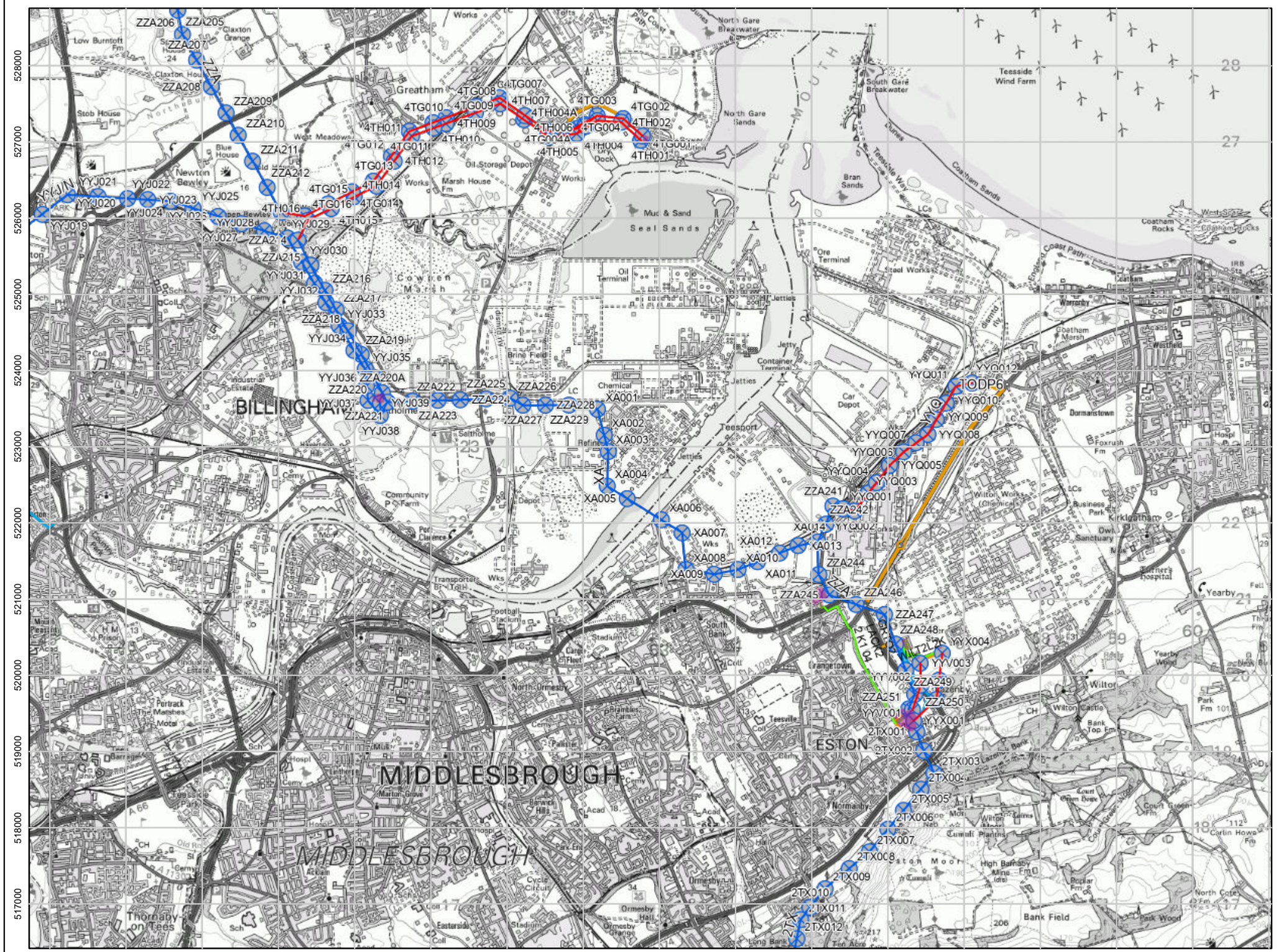

Legend

Cable Accessories
- Pilot Cable

Fibre Cable
- Fibre Cable Commissioned

Buried Cable
- Buried Cable Commissioned

Towers
- Towers Commissioned

OHL 275Kv
- OHL 275Kv Commissioned

OHL 400Kv
- OHL 400Kv Commissioned

Substations
- Substations Commissioned

Notes

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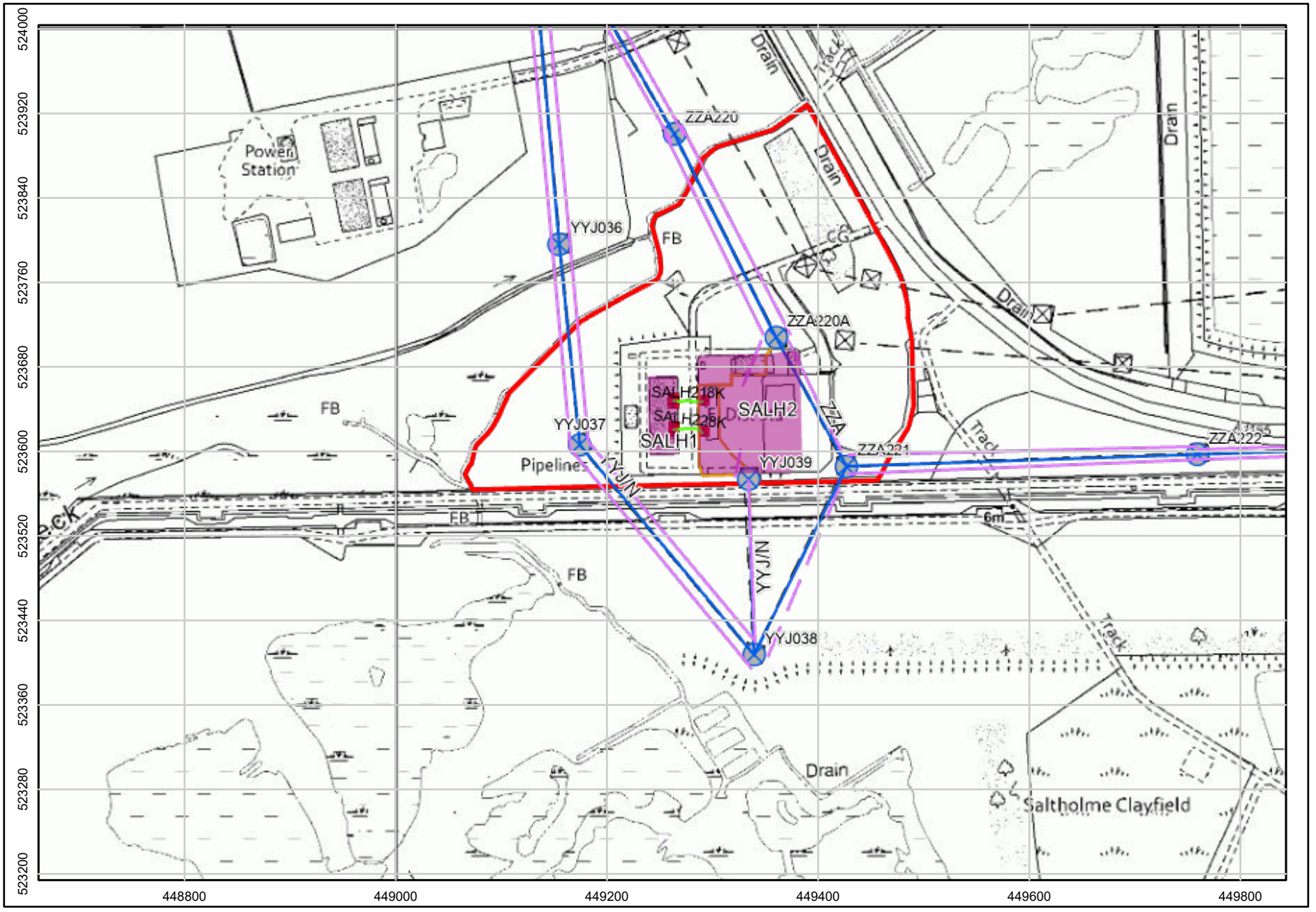

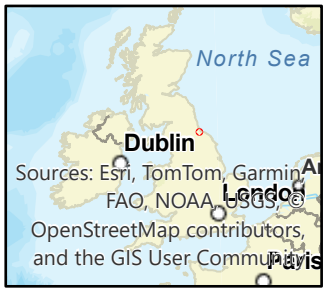

Legend

- Electric Land Ownership
  - Electric Land Ownership - Freehold
- Telecoms
  - RAMM
- Cable Accessories
  - Link Box
- Fibre Cable
  - Fibre Cable Commissioned
- Buried Cable
  - Buried Cable Commissioned
- Towers
  - Towers Commissioned
- OHL 400Kv
  - OHL 400Kv Commissioned
- OHL Circuits
  - Commissioned
  - Decommission Group
- Substations
  - Substations Commissioned

Notes

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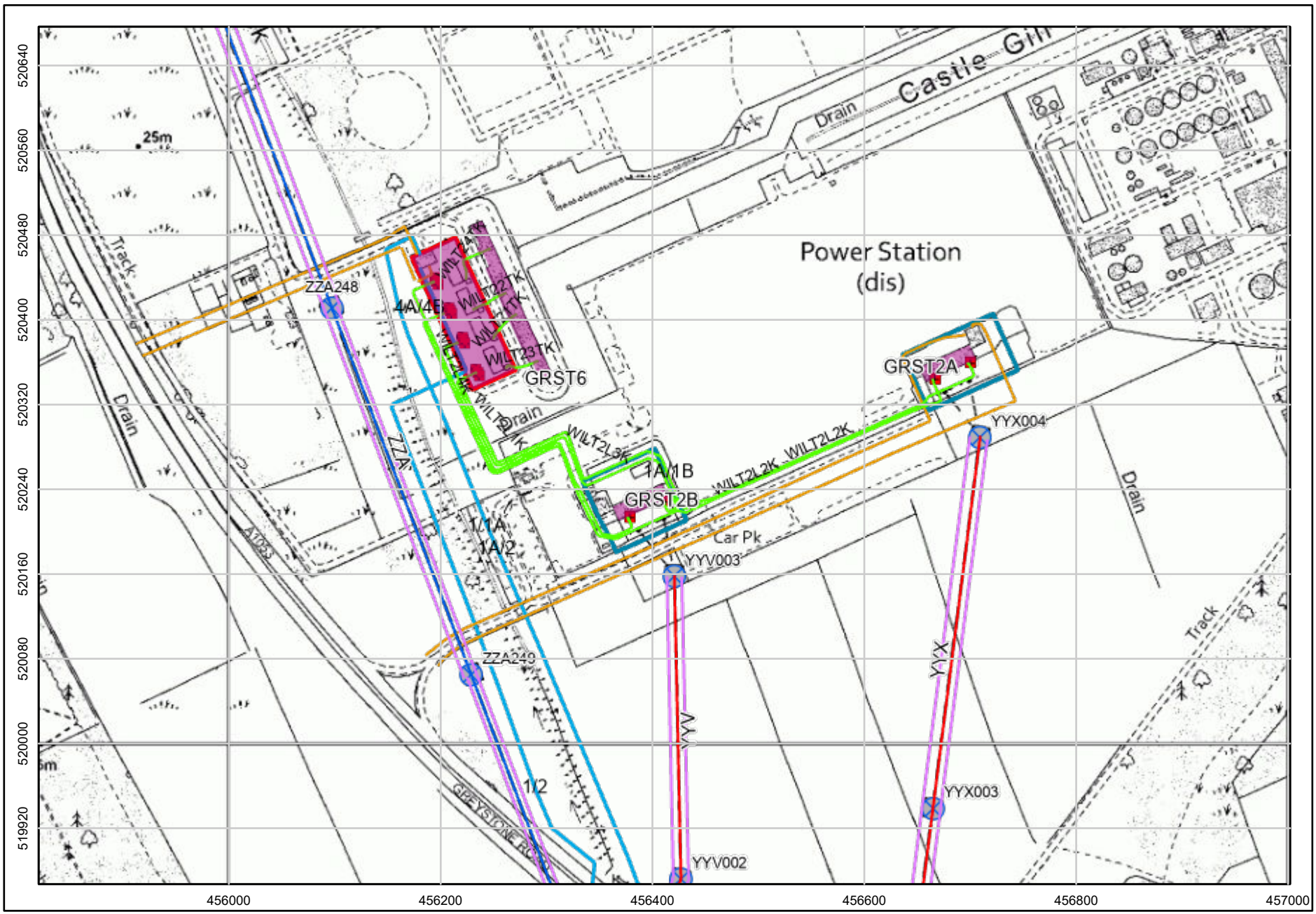

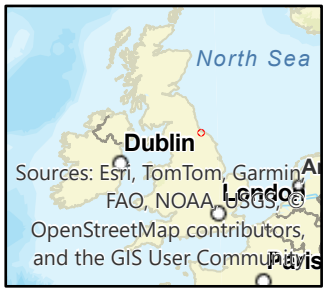

Legend

Electric Land Ownership
- Electric Land Ownership - Leasehold
- Electric Land Ownership - Freehold

Telecoms
- RAMM

Cable Accessories
- Joint Bay
- Gauge
- Link Box
- Oil Tank
- Pilot Cable

Fibre Cable
- Fibre Cable Commissioned

Buried Cable
- Buried Cable Commissioned

Towers
- Towers Commissioned

OHL 275Kv
- OHL 275Kv Commissioned

OHL 400Kv
- OHL 400Kv Commissioned

OHL Circuits
- Commissioned

Substations
- Substations Commissioned

Notes

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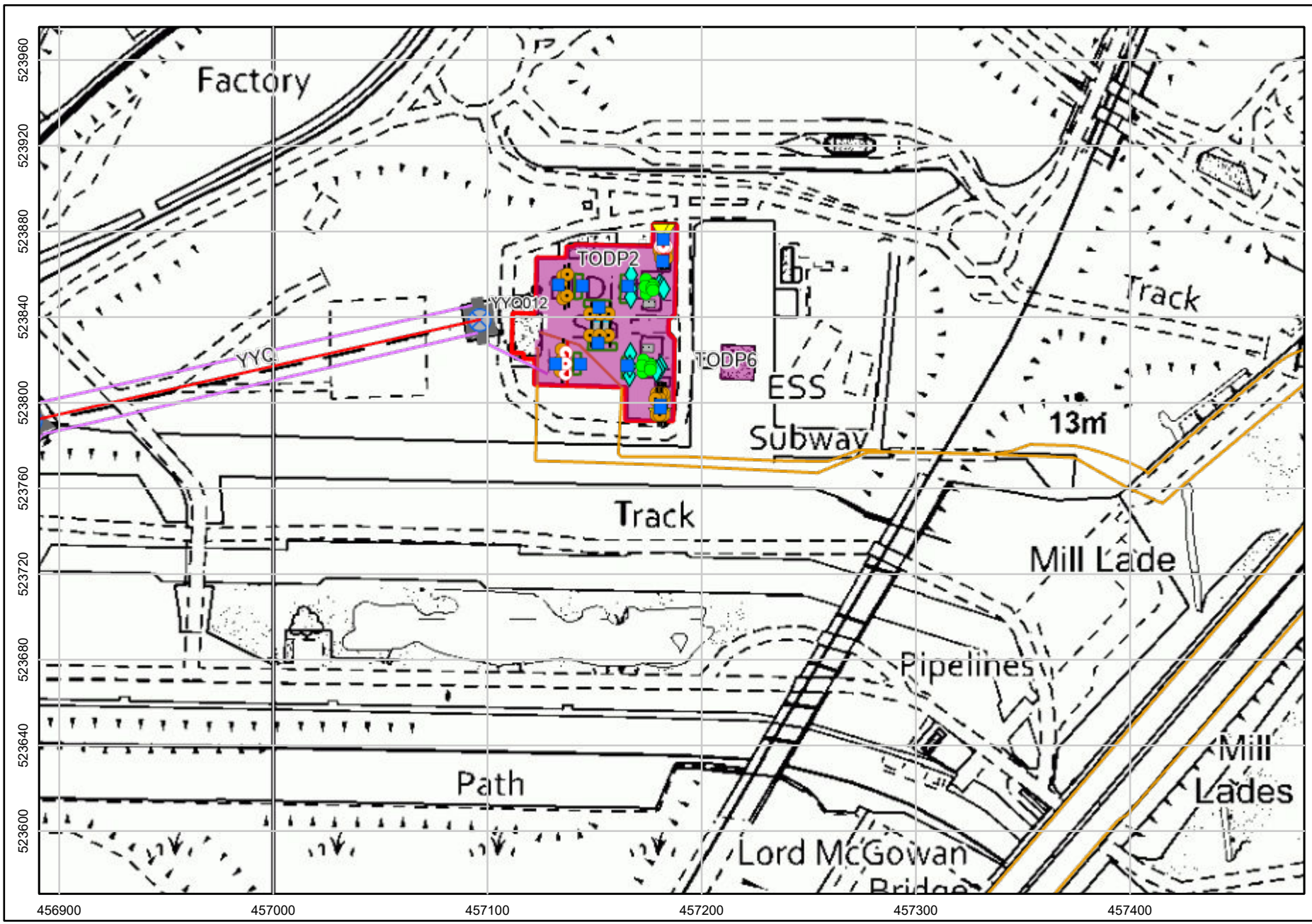

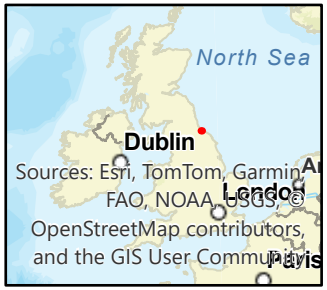

Legend

Electric Land Ownership
- Electric Land Ownership - Freehold

Telecoms
- RAMM

Fibre Cable
- Fibre Cable Commissioned

Towers
- Commissioned
- Towers Commissioned

OHL 275Kv
- OHL 275Kv Commissioned

OHL Circuits
- Commissioned

Substations
- Substations Commissioned

Substations Key Asset
- Commissioned
- Commissioned
- Commissioned
- Commissioned
- Commissioned
- Commissioned
- Commissioned
- Decommission Group
- Commissioned
- Commissioned

Notes

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Technical Guidance Note 287

Third-party guidance for working near National Grid Electricity Transmission equipment

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Emergencies 3

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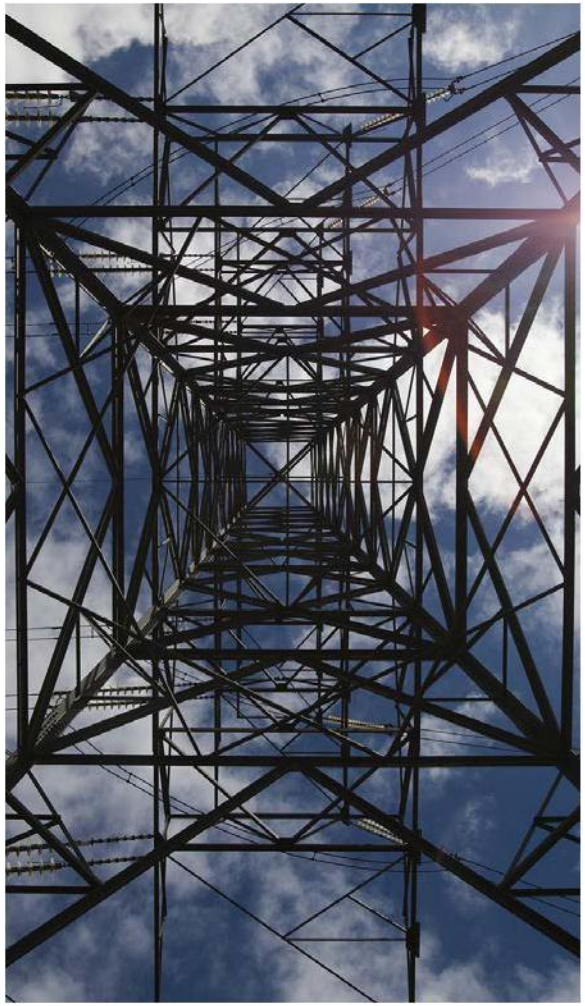


Purpose and scope

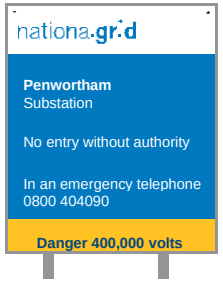
The purpose of this document is to give guidance and information to third parties who are proposing, scheduling or designing developments close to National Grid Electricity Transmission assets.

The scope of the report covers information on basic safety and the location of our assets – and also highlights key issues around particular types of development and risk areas.

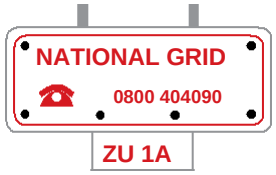
In the case of electrical assets, National Grid does not authorise or agree safe systems of work with developers and contractors. However, we will advise on issues such as electrical safety clearances and the location of towers and cables. We also work with developers to minimise the impact of any National Grid assets that are nearby.

How to identify specific National Grid sites

Substations
The name of the Substation and emergency contact number will be on the site sign.



Overhead Lines
The reference number of the tower and the emergency contact number will be on this type of sign.



Contact National Grid

Plant protection

For routine enquiries regarding planned or scheduled works, contact the Asset Protection team online, by email or phone.

www.lsbud.co.uk

Email: assetprotection@nationalgrid.com

Phone: 0800 001 4282

Emergencies

In the event of occurrences such as a cable strike, coming into contact with an overhead line conductor or identifying any hazards or problems with National Grid's equipment, phone our emergency number 0800 404 090 (option 1).

If you have apparatus within 30m of a National Grid asset, please ensure that the emergency number is included in your site's emergency procedures.

Consider safety

Consider the hazards identified in this document when working near electrical equipment

Part 1

Electricity transmission infrastructure

National Grid owns and maintains the high-voltage electricity transmission network in England and Wales (Scotland has its own networks). It's responsible for balancing supply with demand on a minute-by-minute basis across the network.

Overhead lines

Overhead lines consist of two main parts – pylons (also called towers) and conductors (or wires). Pylons are typically steel lattice structures mounted on concrete foundations. A pylon's design can vary due to factors such as voltage, conductor type and the strength of structure required.

Conductors, which are the 'live' part of the overhead line, hang from pylons on insulators. Conductors come in several different designs depending on the amount of power that is transmitted on the circuit.

In addition to the two main components, some Overhead Line Routes carry a Fibre Optic cable between the towers with an final underground connection to the Substations.

In most cases, National Grid's overhead lines operate at 275kV or 400kV.

Underground cables

Underground cables are a growing feature of National Grid's network. They consist of a conducting core surrounded by layers of insulation and armour. Cables can be laid in the road, across open land or in tunnels. They operate at a range of voltages, up to 400kV.

Substations

Substations are found at points on the network where circuits come together or where a rise or fall in voltage is required. Transmission substations tend to be large facilities containing equipment such as power transformers, circuit breakers, reactors and capacitors. In addition Diesel generators and compressed air systems can be located there.

Part 2

Statutory requirements for working near high-voltage electricity

The legal framework that regulates electrical safety in the UK is *The Electricity Safety, Quality and Continuity Regulations (ESQCR) 2002*. This also details the minimum electrical safety clearances, which are used as a basis for the Energy Networks Association (ENA) TS 43-8. These standards have been agreed by CENELEC (European Committee for Electrotechnical Standardisation) and also form part of the *British Standard BS EN 50341-1:2012 Overhead Electrical Lines exceeding AC 1kV*. All electricity companies are bound by these rules, standards and technical specifications. They are required to uphold them by their operator's licence.

Electrical safety clearances

It is essential that a safe distance is kept between the exposed conductors and people and objects when working near National Grid's electrical assets. A person does not have to touch an exposed conductor to get a life-threatening electric shock. At the voltages National Grid operates at, it is possible for electricity to jump up to several metres from an exposed conductor and kill or cause serious injury to anyone who is nearby. For this reason, there are several legal requirements and safety standards that must be met.

Any breach of legal safety clearances will be enforced in the courts. This can and has resulted in the removal of an infringement, which is normally at the cost of the developer or whoever caused it to be there. Breaching safety clearances, even temporarily, risks a serious incident that could cause serious injury or death.

National Grid will, on request, advise planning authorities, developers or third parties on any safety clearances and associated issues. We can supply detailed drawings of all our overhead line assets marked up with relevant safe areas.

« Section continued from previous page

Your Responsibilities - Overhead lines

Work which takes place near overhead power lines carries a significant risk of coming into proximity with the wires. If any person, object or material gets too close to the wires, electricity could ‘flashover’ and be conducted to earth, causing death or serious injury. You do not need to touch the wires for this to happen. The law requires that work is carried out in close proximity to live overhead power lines only when there is no alternative, and only when the risks are acceptable and can be properly controlled. Statutory clearances exist which must be maintained, as prescribed by the Electricity Safety, Quality and Continuity Regulations 2002.

Under the Health and Safety at Work etc. Act 1974 and Management of Health and Safety at Work Regulations 1999, you are responsible for preparing a suitable and sufficient risk assessment and safe systems of work, to ensure that risks are managed properly and the safety of your workforce and others is maintained. Your risk assessment must consider and manage all of the significant risks and put in place suitable precautions/controls in order to manage the work safely. You are also responsible for ensuring that the precautions identified are properly implemented and stay in place throughout the work.

Work near overhead power lines must always be conducted in accordance with GS6, ‘avoiding danger from overhead power lines’, and any legislation which is relevant to the work you are completing.

.

What National Grid will provide

National Grid can supply profile drawings in PDF and CAD format showing tower locations and relevant clearances to assist you in the risk assessment process.

What National Grid will not provide

National Grid will not approve safe systems of work or approve design proposals

Part 3

What National Grid will do for you and your development

Provision of information

National Grid should be notified during the planning stage of any works or developments taking place near our electrical assets, ideally a minimum notification period of 8 weeks to allow National Grid to provide the following services:

Drawings

National Grid will provide relevant drawings of overhead lines or underground cables to make sure the presence and location of our services are known. Once a third party or developer has contacted us, we will supply the drawings for free.

Risk or impact identification

National Grid can help identify any hazards or risks that the presence of our assets might bring to any works or developments. This includes both the risk to safety from high-voltage electricity and longer-term issues, such as induced currents, noise and maintenance access that may affect the outcome of the development. National Grid will not authorise specific working procedures, but we can provide advice on best practice.

400kV

The maximum nominal voltage of the underground cables in National Grid's network

Risks or hazards to be aware of

This section includes a brief description of some of the hazards and issues that a third party or developer might face when working or developing close to our electrical infrastructure.

Land and access

National Grid has land rights in place with landowners and occupiers, which cover our existing overhead lines and underground cable network. These agreements, together with legislation set out under the *Electricity Act 1989*, allow us to access our assets to maintain, repair and renew them. The agreements also lay down restrictions and covenants to protect the integrity of our assets and meet safety regulations. Anyone proposing a development close to our assets should carefully examine these agreements.

Our agreements often affect land both inside and outside the immediate vicinity of an asset. Rights will include the provision of access, along with restrictions that ban the development of land through building, changing levels, planting and other operations. Anyone looking to develop close to our assets must consult with National Grid first.

For further information, contact Asset Protection:

Email: assetprotection@nationalgrid.com
Phone: 0800 001 4282

Electrical clearance from overhead lines

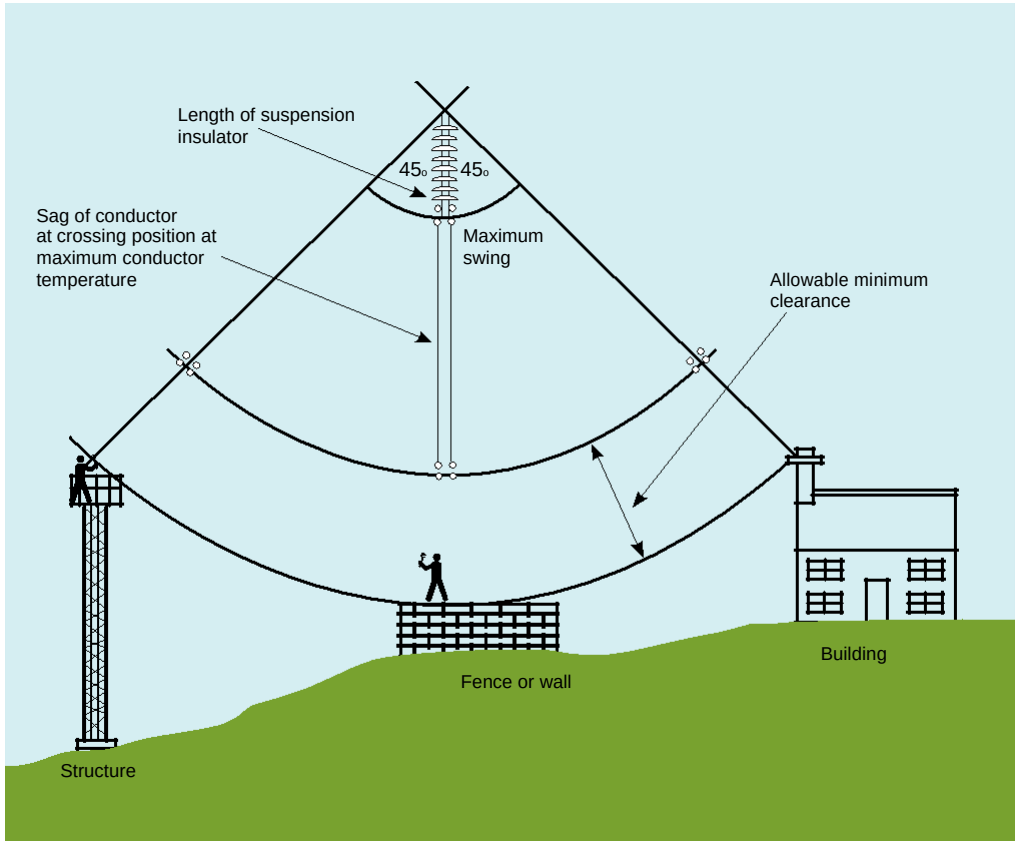
The clearance distances referred to in this section are specific to 400kV overhead lines. National Grid can advise on the distances required around different voltages i.e. 132kV and 275kV.

As we explained earlier, *Electrical Networks Association TS 43-8* details the legal clearances to our overhead lines. The minimum clearance between the conductors of an overhead line and the ground is 7.3m at maximum sag. The sag is the vertical distance between the wire's highest and lowest point. Certain conditions, such as power flow, wind speed and air temperature can cause conductors to move and allowances should be made for this.

The required clearance from the point where a person can stand to the conductors is 5.3m. To be clear, this means there should be at least 5.3m from where someone could stand on any structure (i.e. mobile and construction equipment) to the conductors. Available clearances will be assessed by National Grid on an individual basis.

National Grid expects third parties to implement a safe system of work whenever they are near Overhead Lines.

Diagram not to scale



There should be at least 5.3m between the conductors and any structure someone could stand on

We recommend that guidance such as *HSE Guidance Note GS6 (Avoiding Danger from Overhead Power Lines)* is followed, which provides advice on how to avoid danger from all overhead lines, at all voltages. If you are carrying out work near overhead lines you must contact National Grid, who will provide the relevant profile drawings.

7.3m

The required minimum clearance between the conductors of an overhead line, at maximum sag, and the ground

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The undergrounding of electricity cables at Ross-on-Wye

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Underground cables Underground cables operating at up to 400kV are a significant part of the National Grid Electricity Transmission network. When your works will involve any ground disturbance it is expected that a safe system of work is put in place and that you follow guidance such as *HSG 47 (Avoiding Danger from Underground Services)*.

You must contact National Grid to find out if there are any underground cables near your proposed works. If there are, we will provide cable profiles and location drawings and, if required, on-site supervision of the works. Cables can be laid under roads or across industrial or agricultural land. They can even be layed in canal towpaths and other areas that you would not expect.

Cables crossing any National Grid high-voltage (HV) cables directly buried in the ground are required to maintain a minimum seperation that will be determined by National Grid on a case-by-case basis. National Grid will need to do a rating study on the existing cable to work out if there are any adverse effects on either cable rating. We will only allow a cable to cross such an area once we know the results of the re-rating. As a result, the clearance distance may need to be increased or alternative methods of crossing found.

For other cables and services crossing the path of our HV cables, National Grid will need confirmation that published standards and clearances are met.

Impressed voltage

Any conducting materials installed near high-voltage equipment could be raised to an elevated voltage compared to the local earth, even when there is no direct contact with the high-voltage equipment. These impressed voltages are caused by inductive or capacitive coupling between the high-voltage equipment and nearby conducting materials and can occur at distances of several metres away from the equipment. Impressed voltages may damage your equipment and could potentially injure people and animals, depending on their severity. Third parties should take impressed voltages into account during the early stages and initial design of any development, ensuring that all structures and equipment are adequately earthed at all times.

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Earth potential rise

Under certain system fault conditions – and during lightning storms – a rise in the earth potential from the base of an overhead line tower or substation is possible. This is a rare phenomenon that occurs when large amounts of electricity enter the earth. This can pose a serious hazard to people or equipment that are close by.

We advise that developments and works are not carried out close to our tower bases, particularly during lightning storms.

Noise

Noise is a by-product of National Grid's operations and is carefully assessed during the planning and construction of any of our equipment. Developers should consider the noise emitted from National Grid's sites or overhead lines when planning any developments, particularly housing. Low-frequency hum from substations can, in some circumstances, be heard up to 1km or more from the site, so it is essential that developers find adequate solutions for this in their design. Further information about likely noise levels can be provided by National Grid.

Maintenance access

National Grid needs to have safe access for vehicles around its assets and work that restricts this will not be allowed. In terms of our overhead lines, we wouldn't want to see any excavations made, or permanent structures built, that might affect the foundations of our towers. The size of the foundations around a tower base depends on the type of tower that is built there. If you wish to carry out works within 30m of the tower base, contact National Grid for more information. Our business has to maintain access routes to tower bases with land owners. For that reason, a route wide enough for an HGV must be permanently available. We may need to access our sites, towers, conductors and underground cables at short notice.

30m

If you wish to carry out work within this distance of the tower base, you must contact National Grid for more information

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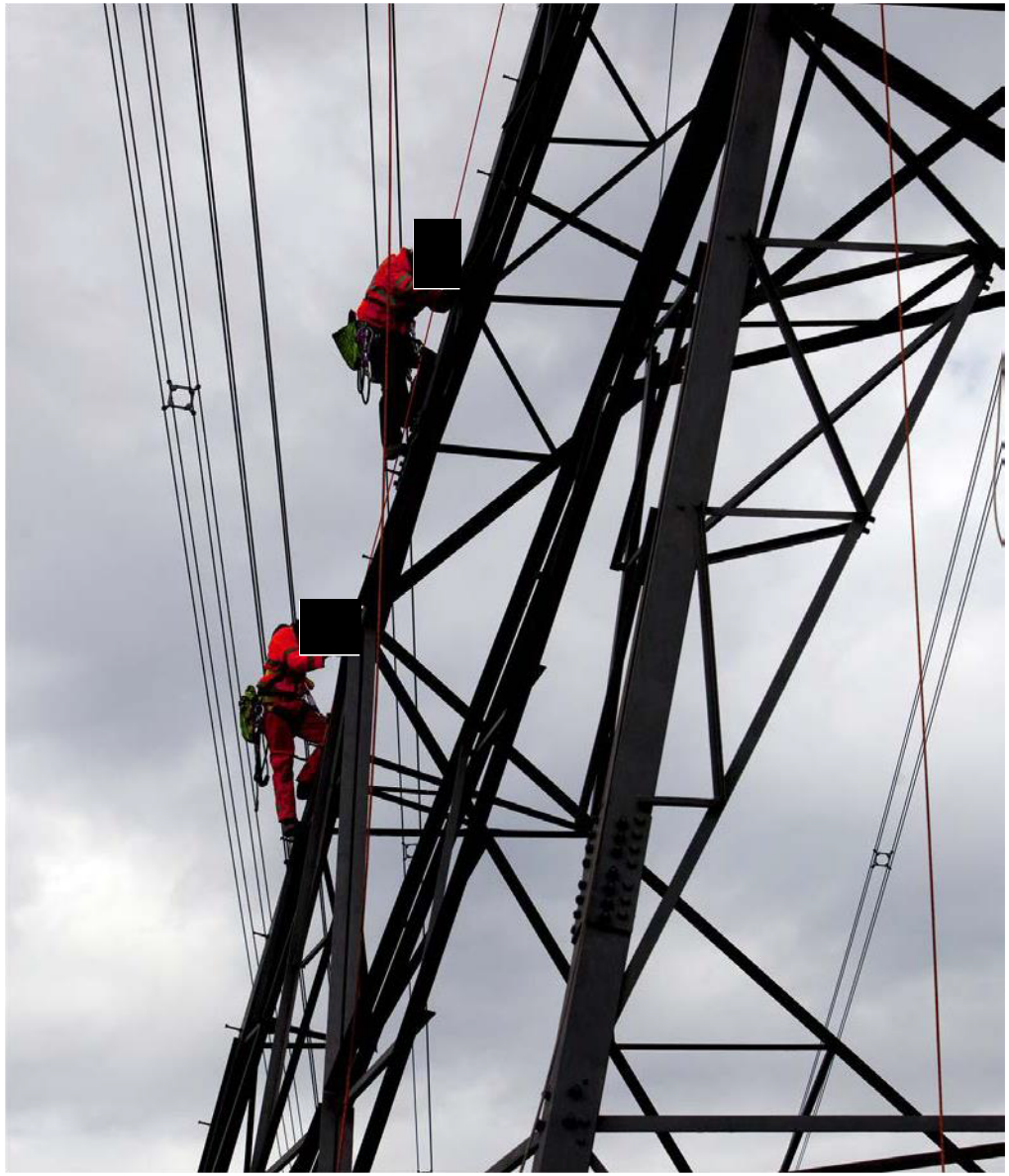

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Fires and firefighting

National Grid does not recommend that any type of flammable material is stored under overhead lines. Developers should be aware that in certain cases the local fire authority will not use water hoses to put out a fire if there are live, high-voltage conductors within 30m of the seat of the fire *(as outlined in ENA TS 43-8)*.

In these situations, National Grid would have to be notified and reconfigure the system – to allow staff to switch out the overhead line – before any firefighting could take place. This could take several hours.

We recommend that any site which has a specific hazard relating to fire or flammable material should include National Grid's emergency contact details (found at the beginning and end of this document) in its fire plan information, so any incidents can be reported.

Developers should also make sure their insurance cover takes into account the challenge of putting out fires near our overhead lines.

Excavations, piling or tunnelling

You must inform National Grid of any works that have the potential to disturb the foundations of our substations or overhead line towers. This will have to be assessed by National Grid engineers before any work begins.

BS ISO 4866:2010 states that a minimum distance of 200m should be maintained when carrying out quarry blasting near our assets. However, this can be reduced with specific site surveys and changes to the maximum instantaneous charge (the amount of explosive detonated at a particular time).

All activities should observe guidance layed out in *BS 5228-2:2009*.

Microshocks

High-voltage overhead power lines produce an electric field. Any person or object inside this field that isn't earthed picks up an electrical charge. When two conducting objects – one that is grounded and one that isn't – touch, the charge can equalise and cause a small shock, known as a microshock. While they are not harmful, they can be disturbing for the person or animal that suffers the shock.

For these reasons, metal-framed and metal-clad buildings which are close to existing overhead lines should be earthed to minimise the risk of microshocks. Anything that isn't earthed, is conductive and sits close to the lines is likely to pick up a charge. Items such as deer fences, metal palisade fencing, chain-link fences and metal gates underneath overhead lines all need to be earthed.

For further information on microshocks please visit **www.emfs.info.**

200m

The minimum distance that should be maintained from National Grid assets when quarry blasting

Specific development guidance

Wind farms

National Grid's policy towards wind farm development is closely connected to the *Electricity Networks Association Engineering Recommendation L44 Separation between Wind Turbines and Overhead Lines, Principles of Good Practice.* The advice is based on national guidelines and global research. It may be adjusted to suit specific local applications.

There are two main criteria in the document:

(i) The turbine shall be far enough away to avoid the possibility of toppling onto the overhead line

(ii) The turbine shall be far enough away to avoid damage to the overhead line from downward wake effects, also known as turbulence

The toppling distance is the minimum horizontal distance between the worst-case pivot point of the wind turbine and the conductors hanging in still air. It is the greater of:

- the tip height of the turbine plus 10%
- or, the tip height of the turbine plus the electrical safety distance that applies to the voltage of the overhead line.

To minimise the downward wake effect on an overhead line, the wind turbine should be three times the rotor distance away from the centre of the overhead line.

Wake effects can prematurely age conductors and fittings, significantly reducing the life of the asset. For that reason, careful consideration should be taken if a wind turbine needs to be sited within the above limits. Agreement from National Grid will be required.

Commercial and housing developments

National Grid has developed a document called *Design guidelines for development near pylons and HVO power lines*, which gives advice to anyone involved in planning or designing large-scale developments that are crossed by, or close to, overhead lines.

The document focuses on existing 275kV and 400kV overhead lines on steel lattice towers, but can equally apply to 132kV and below. The document explains how to design large-scale developments close to high-voltage lines, while respecting clearances and the development's visual and environmental impact.

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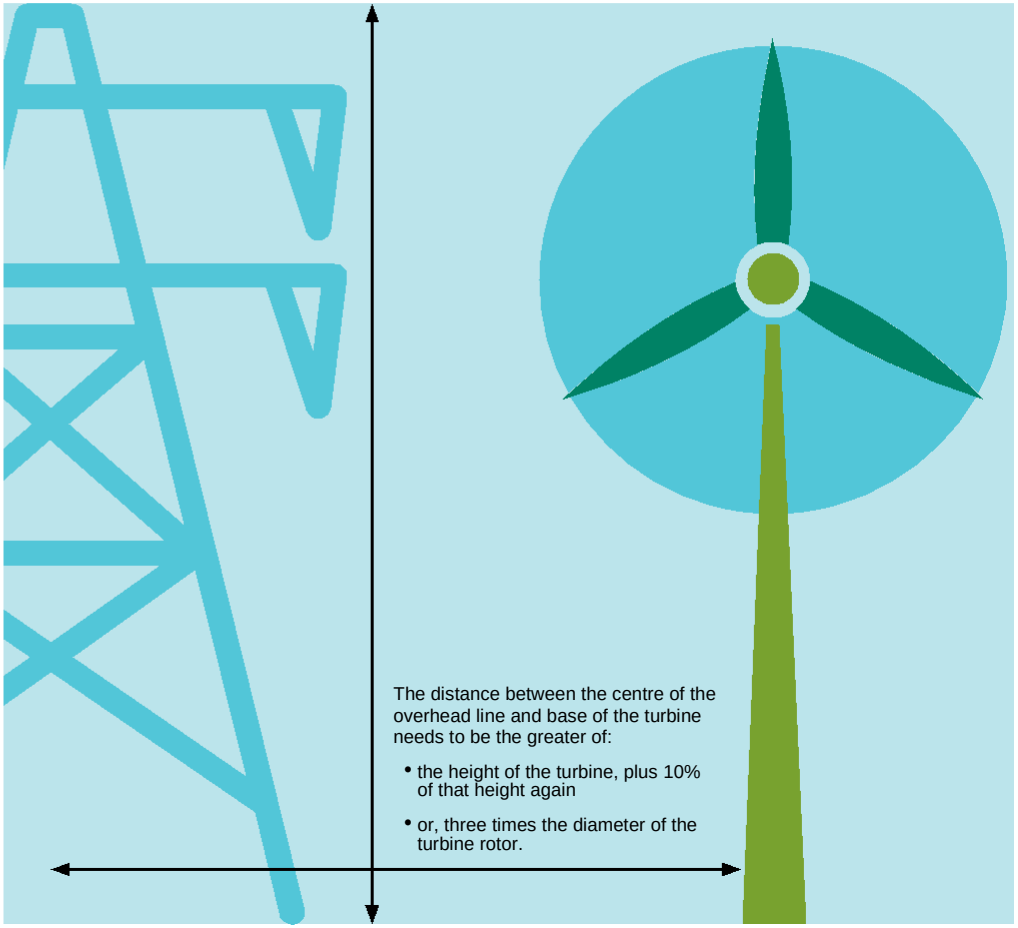
Diagram not to scale



Turbines should be far enough away to avoid the possibility of toppling onto the overhead line

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The advice is intended for developers, designers, landowners, local authorities and communities, but is not limited to those organisations.

Overall, developers should be aware of all the hazards and issues relating to the electrical equipment that we have discussed when designing new housing.

As we explored earlier, National Grid's assets have the potential to create noise. This can be low frequency and tonal, which makes it quite noticeable. It is the responsibility of developers to take this into account during the design stage and find an appropriate solution.

Solar farms

While there is limited research and recommendations available, there are several key factors to consider when designing Solar Farms in the vicinity of Overhead Power Lines.

Developers may be looking to build on arable land close to National Grid's assets. In keeping with the safety clearance limits that we outlined earlier for solar panels directly underneath overhead line conductors, the highest point on the solar panels must be no more than 5.3m from the lowest conductors.

This means that the maximum height of any structure will need to be determined to make sure safety clearance limits aren't breached. This could be as low as 2m. National Grid will supply profile drawings to aid the planning of solar farms and determine the maximum height of panels and equipment.

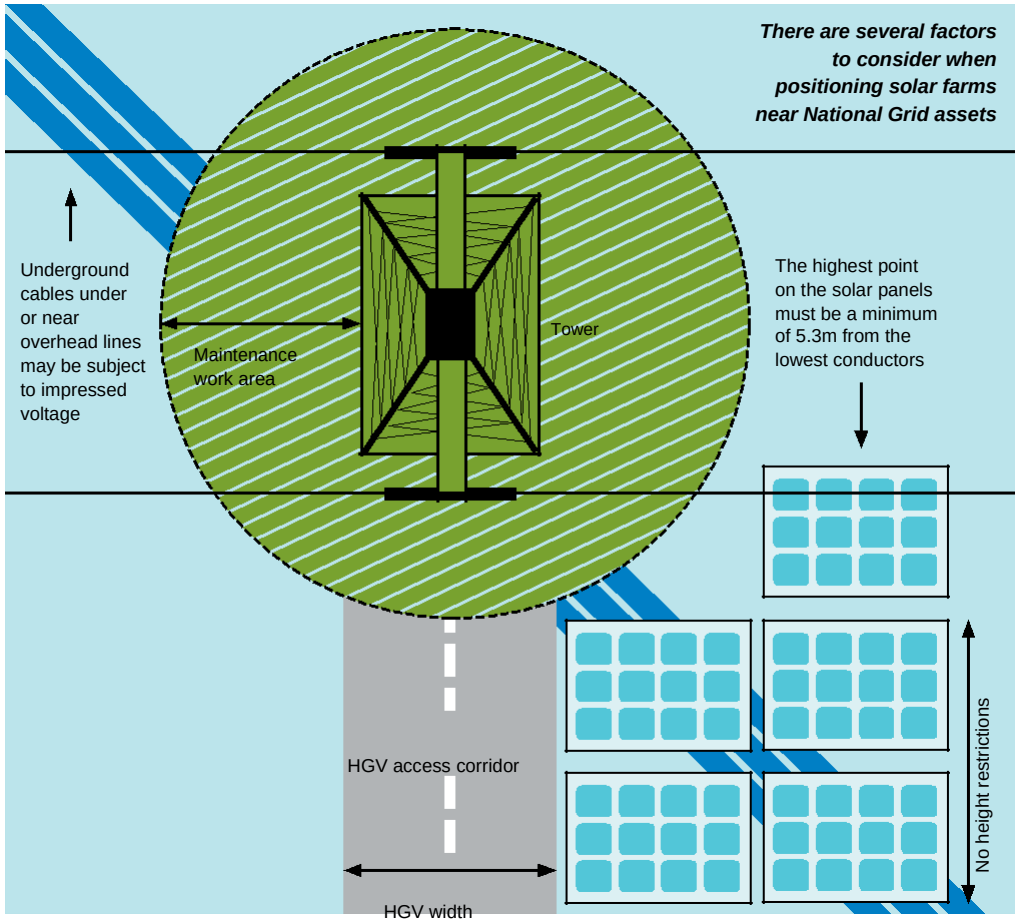
Solar panels that are directly underneath power lines risk being damaged on the rare occasion that a conductor or fitting falls to the ground. A more likely risk is ice falling from conductors or towers in winter and damaging solar panels.

There is also a risk of damage during adverse weather conditions, such as lightning storms, and system faults. As all our towers are earthed, a weather event such as lightning can cause a rise in the earth potential around the base of a tower. Solar panel support structures and supply cables should be adequately earthed and bonded together to minimise the effects of this temporary rise in earth potential.

Any metallic fencing that is located under an overhead line will pick up an electrical charge. For this reason, it will need to be adequately earthed to minimise microshocks to the public.

For normal, routine maintenance and in an emergency National Grid requires unrestricted access to its assets. So if a tower is enclosed in a solar farm compound, we will need full access for our vehicles, including access through any compound gates. During maintenance – and especially re-conductoring – National Grid would need enough space near our towers for winches and cable drums. If enough space is not available, we would require solar panels to be temporarily removed.

Diagram not to scale



Asset protection agreements

In some cases, where there is a risk that development will impact on National Grid's assets, we will insist on an asset protection agreement being put in place. The cost of this will be the responsibility of the developer or third party.

Contact details

Emergency situations

If you spot a potential hazard on or near an overhead electricity line, do not approach it, even at ground level. Keep as far away as possible and follow the six steps below:

- Warn anyone close by to evacuate the area
- Call our 24-hour electricity emergency number: 0800 404 090 (Option 1)[1]
- Give your name and contact phone number
- Explain the nature of the issue or hazard
- Give as much information as possible so we can identify the location – i.e. the name of the town or village, numbers of nearby roads, postcode and (ONLY if it can be observed without putting you or others in danger) the tower number of an adjacent pylon
- Await further contact from a National Grid engineer

[1] It is critically important that you don't use this phone number for any other purpose. If you need to contact National Grid for another reason please use our Contact Centre at www2.nationalgrid.com/contact-us to find the appropriate information or call 0800 0014282.

Routine enquiries

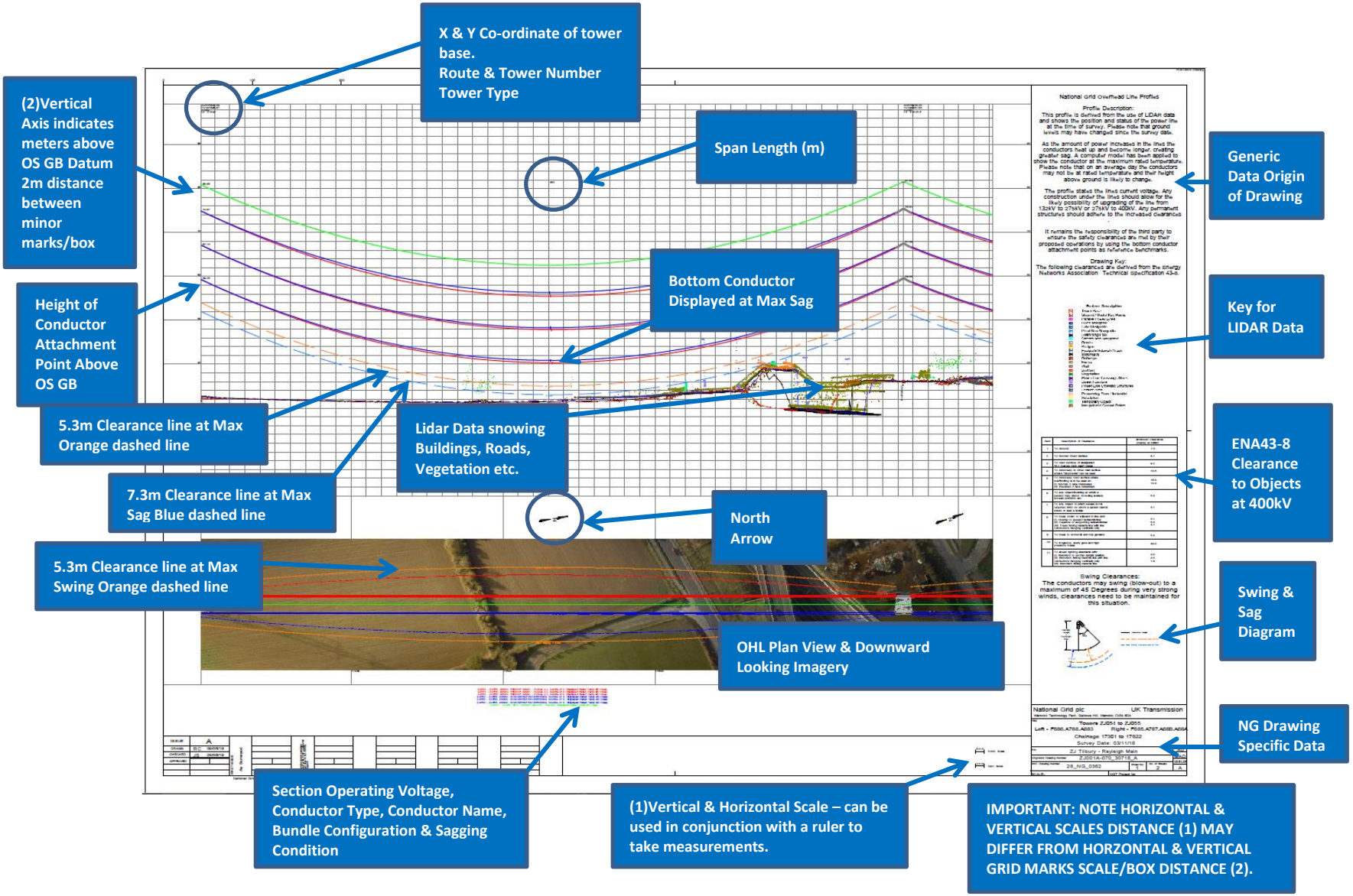
Email:
assetprotection@nationalgrid.com

Call Asset Protection on:
0800 0014282

Opening hours:
Monday to Friday 08:00-16:00

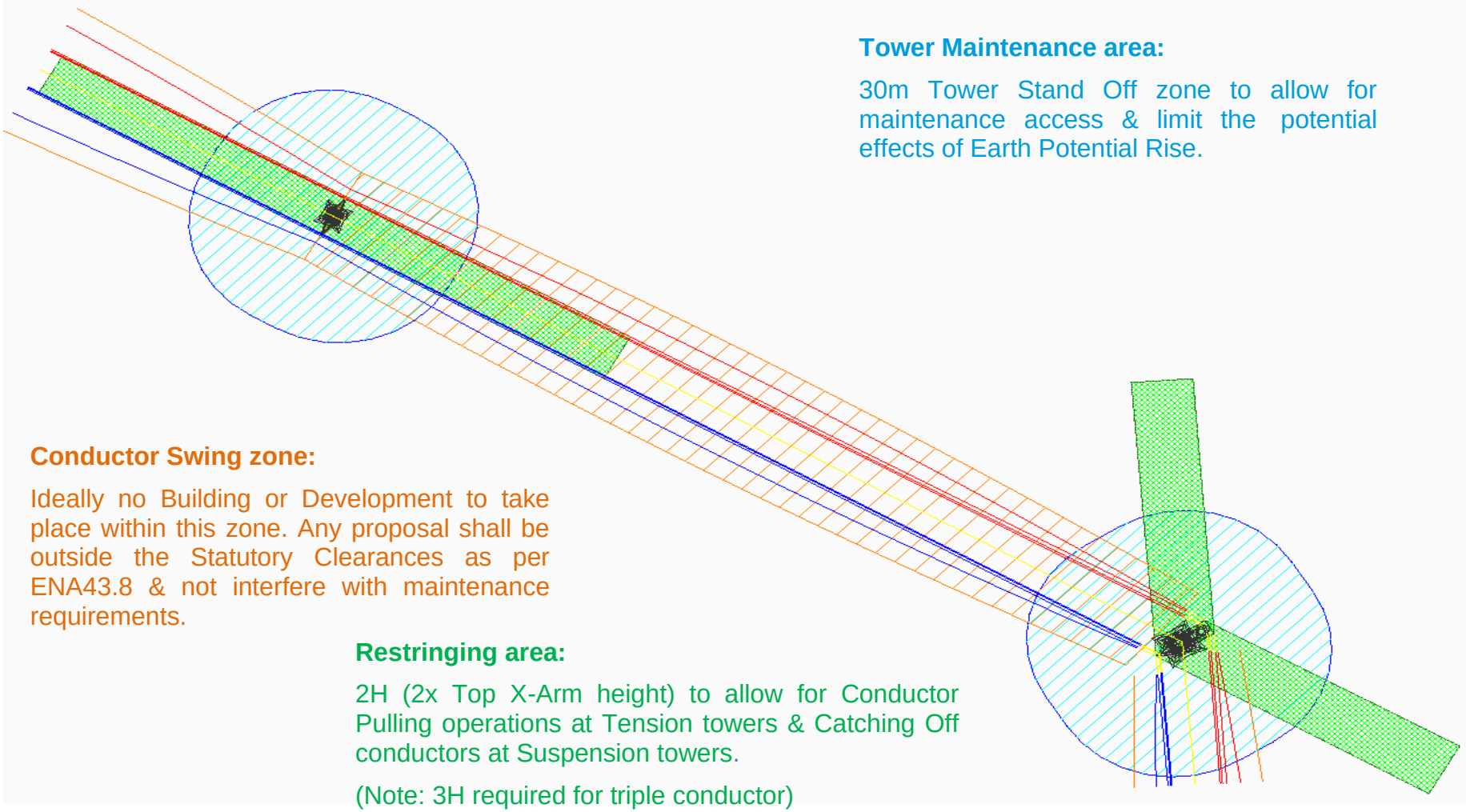
14 APPENDIX A

OHL Profile Drawing Guide



15 APPENDIX B

OHL Tower Stand Off & Reconductoring Area



Tower Maintenance area:

30m Tower Stand Off zone to allow for maintenance access & limit the potential effects of Earth Potential Rise.

Conductor Swing zone:

Ideally no Building or Development to take place within this zone. Any proposal shall be outside the Statutory Clearances as per ENA43.8 & not interfere with maintenance requirements.

Restringing area:

2H (2x Top X-Arm height) to allow for Conductor Pulling operations at Tension towers & Catching Off conductors at Suspension towers.

(Note: 3H required for triple conductor)

[redacted]

From: [redacted]@nationalhighways.co.uk>
Sent: 06 March 2025 11:39
To: H2 North East
Cc: [redacted]
Subject: EN0710005-H2NorthEast Project Pre-Application
Attachments: DCOH2NEL TM001 - Final.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

[redacted]

Dear Jack Pattern

We have reviewed the Environmental Impact Assessment [EIA] Scoping Report [the Report] prepared in relation to the proposed development [ref: EN0710005] the proposal for the H2NorthEast Project. Following a review by The Jacobs Systra Joint Venture [JSJV] of Volume I: Environmental Impact Assessment Scoping Report (Main Report), dated 10/02/2025.

National Highways will need to understand the likely traffic impact of the proposals upon the SRN, specifically the A19 Portrack Interchange to the north of the River Tees, but also the A66 / A1053 / Trunk Road junction and surrounding corridors to the south of the Tees, which is detailed in the attached Technical Memorandum.

We would hope to agree the following with the applicant, within the Draft DCO;

• National Highways will require any planning assessment to engage with and adhere to guidance contained within DfT Circular 01/2022: The Strategic Road Network and the Delivery of Sustainable Development.
• The potential of overlapping regional Teesside DCO construction programmes and the associated cumulative impact of such at the SRN will need to be understood and quantified for National Highways moving forward.
• The impact of the proposed development at the SRN over both the operational and construction phase must be understood in terms of absolute two-way flows over both morning / evening network peak hours. This is opposed to either total daily flows or proportional flows (percentage increase) in relation to baseline flows at any specific junction
• Where the development (construction and / operation) is evidenced to potentially incur a material impact at an SRN junction, an appropriate consideration of operational impacts and, if required, mitigation strategy, will need to be agreed with National Highways.
• The CTMP and CWTP should outline a package of measures that promote and incentivise sustainable travel to / from the site, while committing to vehicle trip generation targets and a trip monitoring strategy that secures the potential impact of the site at the SRN. Detail should also be provided as to what remedial measures will be implemented should vehicular trip targets not be achieved.

[redacted],Planning & Development
National Highways | 2 City Walk | Leeds | LS11 9AR
[redacted]
Web: www.nationalhighways.co.uk

[redacted]

National Highways Limited | General enquiries: 0300 123 5000 |National Traffic Operations Centre, 3 Ridgeway, Quinton Business Park, Birmingham B32 1AF |
https://nationalhighways.co.uk | info@nationalhighways.co.uk

Registered in England and Wales no 9346363 | Registered Office: Bridge House, 1 Walnut Tree Close, Guildford, Surrey GU1 4LZ

[redacted]

From: Before You Dig <BeforeYouDig@northerngas.co.uk>
Sent: 11 February 2025 11:54
To: H2 North East
Cc: Before You Dig
Subject: RE: EXT:EN0710005 - H2NorthEast - EIA Scoping Consultation and Notification

Follow Up Flag: Follow up
Flag Status: Flagged

Good morning

NGN has a number of gas assets in the vicinity of some of the identified "site development" locations. It is a possibility that some of these sites could be recorded as Major Accident Hazard Pipelines(MAHP), whilst other sites could contain High Pressure gas and as such there are Industry recognised restrictions associated to these installations which would effectively preclude close and certain types of development. The regulations now include "Population Density Restrictions" or limits within certain distances of some of our "HP" assets.

The gas assets mentioned above form part of the Northern Gas Networks "bulk supply" High Pressure Gas Transmission" system and are registered with the HSE as Major Accident Hazard Pipelines.
Any damage or disruption to these assets is likely to give rise to grave safety, environmental and security of supply issues.

NGN would expect you or anyone involved with the site (or any future developer) to take these restrictions into account and apply them as necessary in consultation with ourselves. We would be happy to discuss specific sites further or provide more details at your locations as necessary.

If you give specific site locations, we would be happy to provide gas maps of the area which include the locations of our assets.
(In terms of High Pressure gas pipelines, the routes of our MAHP's have already been lodged with members of the local Council's Planning Department)

Kind regards,

[redacted]

Administration Assistant
Northern Gas Networks

[redacted]
www.northerngasnetworks.co.uk
facebook.com/northerngasnetworks
twitter.com/ngngas

[redacted]

Proposed DCO Application by H2 North East Limited for H2 North East

Royal Mail response to EIA Scoping Consultation

Under section 35 of the Postal Services Act 2011, Royal Mail has been designated by Ofcom as a provider of the Universal Postal Service. Royal Mail is the only such provider in the United Kingdom. The Act provides that Ofcom's primary regulatory duty is to secure the provision of the Universal Postal Service. Ofcom discharges this duty by imposing regulatory conditions on Royal Mail, requiring it to provide the Universal Postal Service.

Royal Mail's performance of the Universal Service Provider obligations is in the public interest and should not be affected detrimentally by any statutorily authorised project. Accordingly, Royal Mail seeks to take all reasonable steps to protect its assets and operational interests from any potentially adverse impacts of proposed development.

Royal Mail and its advisor BNP Paribas Real Estate / Strutt & Parker have reviewed the EIA Scoping Report dated 10 February 2025. There are eight operational Royal Mail properties within 5 miles of the proposed scheme.

The construction of this infrastructure proposal has been identified as having potential to impact on Royal Mail operational interests, particularly if combined with cumulative impacts from other major development schemes in the area. However, at this time Royal Mail is not able to provide a consultation response due to insufficient information being available to adequately assess the level of risk to its operation and the available mitigations for any risk. Consequently, Royal Mail wishes to reserve its position to submit a consultation response/s at a later stage in the consenting process and to give evidence at any future Public Examination, if required.

In the meantime, any further consultation information on this infrastructure proposal and any questions of Royal Mail should be sent to:

[redacted]**@royalmail.com), Senior Planning Lawyer, Royal Mail Group Limited**

[redacted]**@struttandparker.com) BNP Paribas Real Estate/Strutt & Parker**

Please can you confirm receipt of this holding statement by Royal Mail.

End

[redacted]

From: [redacted]@trinityhouse.co.uk>
Sent: 21 February 2025 09:22
To: H2 North East
Cc: [redacted]
Subject: RE: EN0710005 - H2NorthEast - EIA Scoping Consultation and Notification
Attachments: H2NE - Statutory Consultation Letter.pdf

Follow Up Flag: Follow up
Flag Status: Flagged

Categories: EST

[redacted]

Dear Sir/Madam

Trinity House has no comments to make on the EIA Scoping documentation and is content that Shipping and Navigation have been scoped out of these documents.

Noting that marine interaction of the proposed development area lies within the jurisdiction of PD Ports Teesport, Trinity House advise that any marine works proposed below mean high water springs should be fully assessed in consultation with PD Ports Teesport as the Statutory Harbour Authority. Any Navigation Risk Assessment will require the agreement of the Harbour Authority for proposed risk mitigation measures.

Regards

[redacted]

Navigation (Examiner) Manager

Trinity House, Tower Hill, London, EC3N 4DH

[redacted]

From: H2 North East <h2ne@planninginspectorate.gov.uk>
Sent: 11 February 2025 08:54
To: Navigation <navigation.directorate@trinityhouse.co.uk>
Cc: [redacted]trinityhouse.co.uk>
Subject: EN0710005 - H2NorthEast - EIA Scoping Consultation and Notification

Dear Sir/Madam

Please see attached correspondence on the proposed H2NorthEast.

The applicant for the proposed development intends to make an application for Development Consent under the Planning Act 2008. The applicant has sought a scoping opinion from the Planning Inspectorate, on behalf of the Secretary of State, as to the scope and level of detail of the information to be provided within the Environmental Statement that will accompany its future application.