

Application by Net Zero Teesside Power Limited and Net Zero North Sea Storage Limited for the Net Zero Teesside Project The Examining Authority's second written questions and requests for information (ExQ2) Issued on 9 August 2022.

The following table sets out the Examining Authority's (ExA's) second round of written questions and requests for information – ExQ2. Questions are set out using the same issues-based framework as ExQ1, derived from the Initial Assessment of Principal Issues provided as **Annex C** to the Rule 6 letter of 11 April 2022. Questions have been added to the framework of issues set out there as they have arisen from representations and to address the assessment of the application against relevant policies.

Column 2 of the table indicates which Interested Parties (IPs) and other persons each question is directed to. The ExA would be grateful if all persons named could answer all questions directed to them, providing a substantive response, or indicating that the question is not relevant to them for a reason. This does not prevent an answer being provided to a question by a person to whom it is not directed, should the question be relevant to their interests.

Each question has a unique reference number which starts with an alphabetical code and then has an issue number and a question number. For example, the first question on general matters is identified as GEN.2.1. When you are answering a question, please start your answer by quoting the unique reference number.

If you are responding to a small number of questions, answers in a letter will suffice. If you are answering a larger number of questions, it will assist the ExA if you use a table based on this one to set out your responses. An editable version of this table is available in Microsoft Word.

Responses are due by Deadline 6: 23 August 2022.

Abbreviations used:

AOD	Above Ordnance Datum
AP(s)	Affected Person(s)
BoR	Book of Reference
BEIS	(Department of) Business, Energy and Industrial Strategy
CA	Compulsory Acquisition
CCGT	Combined Cycle Gas Turbine
CCR	Carbon Capture Readiness
CEMP	Construction Environmental Management Plan
CHP	Combined Heat and Power
CO ₂	Carbon dioxide
CIAS	Cleveland Industrial Archaeology Society
D	Deadline
DAS	Design and Access Statement
DCO	Development Consent Order
dDCO	Draft Development Consent Order
EA	Environment Agency
EcIA	Ecological Impact Assessment
EIA	Environmental Impact Assessment
EM	Explanatory Memorandum
ES	Environmental Statement
ExA	Examining Authority

ExQ1	Examining Authority's First Written Questions		
FEED	Front End Engineering Design		
FZ	Flood Zone		
НВС	Hartlepool Borough Council		
HDD	Horizontal Direct Drilling		
HP4	Hornsea Project Four		
HRA	Habitats Regulations Assessment		
IEMA	Institute for Environmental Management and Assessment		
IP(s)	Interested Party (Parties)		
LIR	Local Impact Report		
m	metre		
ММО	Marine Management Organisation		
MMP	Materials Management Plan		
MBT	Micro-Bored Tunnels		
MWe	Megawatts		
NE	Natural England		
NO ₂	Nitrogen dioxide		
NSIP	Nationally Significant Infrastructure Project		
NZT	Net Zero Teesside		
NPS	National Policy Statement		
PCC	Power Capture and Compression		
PRoW	Public Rights of Way		
R	Requirement		

RCBC	Redcar and Cleveland Borough Council
RPAs	Relevant Planning Authorities
RR	Relevant Representation
SoCGs	Statements of Common Ground
SoS	Secretary of State
SPA	Special Protection Area
SPD	Supplementary Planning Document
SSSI	Site of Special Scientific Interest
STBC	Stockton-on-Tees Borough Council
STDC	South Tees Development Corporation
SWMP	Site Waste Management Plan
WFD	Water Framework Directive
WSI	Written scheme of investigation
UXO	Unexploded Ordnance
ZTV	Zone of Theoretical Visibility

The Examination Library

References in these questions set out in square brackets (eg [APP-010]) are to documents catalogued in the Examination Library. The Examination Library can be obtained from the following link: https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/EN010103/EN010103-001182-NZT%20EL.pdf

Citation of Questions

Questions in this table should be cited as follows:

Question reference: issue reference: question number, eg GEN.2.1 – refers to the first question under the second round of questions for General and Cross Topic Questions in this table.



CONTENTS

GENERAL AND CROSS-TOPIC QUESTIONS	6
AIR QUALITY AND EMISSIONS	12
BIODIVERSITY AND HABITATS REGULATIONS ASSESSMENT	13
CLIMATE CHANGE	16
COMBINED AND CUMULATIVE EFFECTS	19
COMPULSORY ACQUISITION ANDTEMPORARY POSSESSION	19
DESIGN, LANDSCAPE AND VISUAL	24
DEVELOPMENT CONSENT ORDER	26
GEOLOGY HYDROGEOLOGY AND LAND CONTAMINATION	31
HISTORIC ENVIRONMENT	33
MAJOR ACCIDENTS AND NATURAL DISASTERS	35
NOISE AND VIBRATION	36
PLANING POLICY AND LEGISLATION	36
POPULATION AND HUMAN HEALTH	37
SOCIO-ECONOMICS AND TOURISM INCLUDING MARINE USERS	37
TRAFFIC AND TRANSPORT	37
WATER ENVIRONMENT	38

ExQ2: 9 August 2022

ExQ2	Question to:	Question:	Sembcorp Response
GENERAL	AND CROSS-TOPIC	QUESTIONS	
GEN.2.9	Applicants	At various places within the application documents including Table 5.1 of the Gas Connection and Pipelines Statement [APP-073] the range of different approaches to the installation of pipelines is described including tunnel (Micro Bored Tunnel (MBT)), auger bore, trenchless and open cut (and Horizontal Direct Drilling (HDD)). The Applicants are asked to explain why different approaches are required in different locations and the implications of different technologies/ approaches in terms of land requirements.	Whilst this question has not been specifically addressed to Sembcorp, the following high level comments are provided in order to assist the ExA in its consideration of these matters. These are based on Sembcorp's extensive experience as an apparatus operator, including in relation to the Sembcorp Pipeline Corridor. With respect to the implications of each technique in terms of land take requirements: • Open Cut: requires the largest amount of horizontal width. This is to facilitate excavation and the storage of soil / backfill close to the excavation. • Trenchless Crossings: there are several construction techniques, which include auger boring which the Applicants have chosen to list separately in Table 5.1. The reason for this is not clear. Other trenchless techniques include grundoram tunnelling (utilising pipe-jacks as 'rammers'), micro-tunnelling, and horizontal directional drilling. • Sembcorp notes that the Applicants have not commented on which specific technique will be used, although it understand that the aim is to avoid disturbing the surface. Generally, Sembcorp would expect construction depths of at least 1.7 metres under small

ExQ2	Question to:	Question:	Sembcorp Response
			watercourses and ditches, 2 metres below roads and main rivers and 4.3metres below railways. • Auger Bores typically require launch and receive pits, and sometimes the installation of thrust blocks (typically concrete cubes). However, depending on bore, launch and receive pits can be as small as 3 metres by 2 metres at each end and, if a thrust block is required, this is additional, but generally of similar size (these figures assume a 12inch bore). Dewatering equipment and sheet piling may be utilised for these pits in addition. • Some additional land is also required on both sides of the crossing/bore/tunnel to accommodate the excavated material from any pits and the pipe itself, including for string out, and to allow for the location of construction plant. As to the specific techniques proposed by the Applicants for the identified 'Special Crossings' in Table 5.1, Sembcorp has no further comments.
GEN.2.13	Applicants INEOS Nitriles Ltd Other IPs	In various sections of the ES, it is stated that decommissioning relates to above ground infrastructure only. Nevertheless, in response to ExQ1 CA.1.11 INEOS Nitriles Ltd commented that decommissioning was considered to be inadequately dealt with in the scheme requirements with no objective trigger included. INEOS would like an	Sembcorp considers that the adequacy of the segregated decommissioning fund (and any associated guarantee) is relevant and important for any and all of the Applicants' redundant infrastructure.

ExQ2 Ques	stion to: Ques	tion:	Sembcorp Response
	of red guara achier Respo [REP: for a of decorn backet power decorn i)	endently enforceable obligation for the removal lundant infrastructure including financial intees to be in place to ensure that this can be ved without recourse to the existing landowners. onding, the Applicants stated (section 9.2 of 3-011]) that R32 had been updated to provide decommissioning plan which secures the missioning of the Proposed Development, and up by clear and stringent enforcement res. Paragraph 9.2.3 references the need for a missioning fund being identified. The Applicants are asked to explain why the Proposed Development does not address the decommissioning of below ground structures. Is it appropriate that below ground structures are left in-situ? Further detail about the decommissioning fund should also be provided. INEOS Nitriles is asked to comment on the Applicants' response [REP3-011] including the proposed amendments to R32 and the comments at paragraph 9.2.3. Other IPs are also invited to comment on the provisions to address decommissioning.	It is Sembcorp's experience – including from over twenty years' operation of the Sembcorp Pipeline Corridor – that pipelines (particularly) have a finite life and become either uneconomic to repair and/or the plant with which they are associated closes, in either case leading to them becoming redundant. This necessitates (as a minimum) their cleaning and often the outright removal of the apparatus. This is both to free up space for new apparatus, as well as to remove a potential hazard to others working around them. In a number of cases, Sembcorp's own decommissioning / end of term obligations upon expiry of certain of its rights in the Corridor, are to yield up to original condition, un-impinged by apparatus. In this sense, these are fairly standard and common decommissioning requirements for the Teesside area. The decision whether or not to remove buried apparatus at the end of its term or useful economic life is not simply an economic one: it is also driven by the potential risk to other adjacent apparatus. The question is whether it is appropriate for the below ground structures or apparatus to be left in situ. Where buried apparatus is left in situ, particularly where of larger bore (for example, the CO2 transportation pipeline) it is Sembcorp's

ExQ2	Question to:	Question:	Sembcorp Response
			experience that this still needs to be safely decommissioned, usually though some form of purging, cleaning and then fill with a stabiliser, to avoid subsequent subsidence of neighbouring land and to allow ready identification of the apparatus as redundant. In other words, works are still required (and must be funded) even if decommissioned apparatus is left in situ.
			In addition, where below ground apparatus can economically and safely be removed, Sembcorp would still encourage an apparatus owner remove it. For example, the concrete foundation of a sign is generally readily accessible and removable, and if not removed presents a challenge for any future re-development of the land in which it is located.
			 Accordingly, R32 should be amended as follows: In R32(4)(a), after demolished insert "and the apparatus to be removed"; After R32(4)(a), insert a new subparagraph (b) to read "where apparatus is proposed to be left in situ and not removed, the steps to be taken to decommission the said apparatus and make it safe;" and Re-number the following sub-paragraphs (c) through (h).

ExQ2	Question to:	Question:	Sembcorp Response				
BIODIVER	BIODIVERSITY AND HABITATS REGULATIONS ASSESSMENT						
CLIMATE	CHANGE						
COMBINE	ED AND CUMULATIVE	EFFECTS					
COMPUL	SORY ACQUISITION A	AND TEMPORARY POSSESSION					
CA.2.5	Sembcorp Utilities (UK) Ltd	RR-034, REP1-055, REP2-098, REP2-099, REP3-025, REP4-036 and REP5-031 refer to concerns relating to Sembcorp's pipeline corridors amongst other matters.	i) Comment on the Applicants' post- hearing submission [Appendix 1, section 1.2 REP5-026] regarding a justification for corridor widths				
		 Can Sembcorp provide a response to the following: i) Comment on the Applicants' post-hearing submission [Appendix 1, section 1.2 REP5-026] regarding a justification for corridor widths; 	Before addressing Appendix 1 in detail, Sembcorp would wish to draw the ExA's attention to the following preliminary points.				
		 ii) Comment on the Applicants' post-hearing note [Item 4, REP5-026] regarding duration of rights; iii) Comment on the relevant updates to the dDCO [REP5-002] which include Sembcorp as a consultee to a number of Requirements; and 	It is Sembcorp's typical experience from managing the Sembcorp Pipeline Corridor and permitting and scheduling the construction, maintenance and repair activities taking place within it, that construction activities require significantly more land than that needed for				
		iv) Provide an update on discussions in relation to voluntary agreements.	maintenance and repairs. This is because it would be unusual to replace a pipeline as a whole; instead, the standard practice would be to undertake repairs only in proximity to the section requiring works.				
			Inspection and maintenance commonly requires only visual, but sometimes non-destructive, techniques such as radiography to verify the pipeline integrity and levels of corrosion, and				

ExQ2: 9 August 2022

ExQ2	Question to:	Question:	Sembcorp Response
			typical pipeline preservation includes repainting and prep works. These can be done from a much narrower works corridor that is required for construction.
			As far as Appendix 1 is concerned, Sembcorp would comment as follows: a. Overall, the Applicants have provided very little actual engineering justification for the widths selected over each part of the
			b. Para 1.2.1 illustrates why it is fundamentally inappropriate to grant the Applicants carte blanch to construct apparatus and interfere with the established rights and management arrangements within the Sembcorp Pipeline Corridor without specific reference to the existing apparatus and the impact which it could have on the plants which are served by it. For example, the explanation for a pipeline entering or exiting from the Corridor is typically because it provides services to adjacent facilities and premises. Sembcorp has effectively managed these competing requirements over more then two decades as 'pipeline authority' for the Corridor.

ExQ2	Question to:	Question:	Semb	ocorp Response
EXQZ	Question to:	question:	C.	Para 1.2.3 refers to the northern and southern access tracks. Sembcorp's understanding, which is inferred from the Applicants' response, is that the Applicants do not intend to construct apparatus within the existing access tracks. This supports Sembcorp's submission that an alternative right – for example, temporary rights to use these access tracks for access purposes – is all that the Applicants require in these locations, rather than unduly seeking to acquire rights over the entire extent of the Corridor and beyond. In addition, whilst the Applicants state that they have "included a strip on the outside edge of each existing access track where required and appropriate", no information has been provided whatsoever as to the methodology or rationale for any such inclusions – this is no more than a generality and a bare assertion by the Applicants with no reasoned analysis to support it. Sembcorp submits that the ExA cannot properly satisfy itself of the appropriateness of the width sought absent specific, detailed explanation of the Applicants' underlying reasoning.
			e.	Para 1.2.4 It is Sembcorp's experience that existing apparatus owners, including

ExQ2	Question to:	Question:	Semb	ocorp Response
				the likes of SABIC UK Petrochemicals Ltd, have been able to construct new pipelines of substantial bore (including the ethane pipeline in circa 2013) within the Sembcorp Pipeline Corridor, comfortably within the central land bounded by the access tracks, without the need for additional land. Accordingly, Sembcorp does not accept the Applicants' assertion that a large width corridor is necessary for these purposes and submits that the ExA cannot place any reliance on the Applicants' position without further specific justification – for each location along the Corridor – being provided.
			f.	Para 1.2.7. Sembcorp does not dispute the first three sentences of this paragraph, but not agree that this leads to an inevitable conclusion that "the Applicants require new rights for the full width of the existing pipeline corridor and associated access tracks". Sembcorp has undertaken a number of line walks with representatives of the Applicants and/or its consultants and the instances where potential pipeline clashes will occur, the preferred routing and potential alternatives are generally known already. Whilst there may well be a need for flexibility in certain areas, this does not justify the overly

ExQ2	Question to:	Question:	Semb	ocorp Response
				broad rights being sought by the Applicants along the entire Corridor.
			g.	Para 1.2.8 – Whilst Sembcorp accepts that there are instances of pipelines crossing from the north to south piperacks and vice versa, these are very much a minority within the Corridor and instances of such transfer are not frequent as this paragraph seems to imply.
			h.	Para 1.2.9 – The Applicants have asked and agreed to be part of the notification group which Sembcorp advises when it has received requests to develop relevant apparatus within the Sembcorp Pipeline Corridor. Therefore, it will have an opportunity to comment upon how proposed development may affect its designed route. Management of any potential conflicts would then fall to Sembcorp in its established role as the pipeline authority.
			i.	Para 1.2.10 Sembcorp does not agree that the Applicants' position is made out or that that the overly broad rights proposed by the Applicants are necessary to ensure the deliverability of the Proposed Development. Nor is their extension

ExQ2: 9 August 2022

ExQ2	Question to:	Question:	Semb	ocorp Response
				across the whole width of the Corridor for all or most of its length justified.
			j.	Para. 1.2.11 Sembcorp respectfully requests that the ExA note that Cross Section A (Work No 6) is one of the widest points of the Corridor. Accordingly, Sembcorp submits that its use by the Applicants to seek to justify seeking rights over a width of 75 metres is excessive and misleading. This cross-section is not representative of the majority of the Corridor. Similar concerns apply to Cross Sections B through D. Sembcorp maintains its position that the Applicants must demonstrate why the specific width is required along the whole of the Sembcorp Pipeline Corridor in order to justify the extent of the rights that it is seeking in the dDCO. Absent such further specific, detailed and particular explanation the ExA is invited to conclude that the Applicants have not demonstrated why the extent of the rights sought is necessary.
			k.	Para 1.3.3 states that "further engineering assessment is required, including a Quantitative Risk Assessment, to
				determine exclusion distances in the event of a rupture before a final easement width can be confirmed". Sembcorp considers

ExQ2: 9 August 2022

ExQ2	Question to:	Question:	Sembo	orp Response
			,	that it is reasonable to use the existing Sembcorp 24 inch gas pipeline protection / sterilisation strip as a reference point for what is required. This controls activity within 3 metres of the pipeline.
				In addition, the Breagh and Northern Gas Networks to NWL Bran Sands both have existing operational gas pipelines in the area, the former of which uses the same 3 metre protection strip as Sembcorp whilst the latter does not contain a specified protection strip within the Sembcorp Pipeline Corridor at all. Accordingly, Sembcorp sees no reason why a proportionate and reasonable assessment – with due regard to the existing apparatus and arrangements in the Corridor – cannot be provided at this stage.
			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Para 1.3.6 – The Applicants intimate that their aim is "to minimise sterilisation of land". This pays insufficient regard to the fact that the land affected by the dDCO will be blighted and other development effectively prevented in the interim. In these circumstances, the unnecessary and overly broad inclusion of land within the Sembcorp Pipeline Corridor (and elsewhere) within the dDCO powers runs

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			completely contrary to the Applicants stated aim.
			In any event, there is no reason why the right to be able to inspect and maintain the apparatus cannot be secured by private agreement between the Applicants and Sembcorp in common with all other operators having apparatus in the Sembcorp Pipeline Corridor who share the space, with Sembcorp scheduling and co-ordinating any works in an effort to avoid conflicts and reduce risk.
			ii) Comment on the Applicants' post- hearing note [Item 4, REP5-026] regarding duration of rights
			It is Sembcorp's experience from managing the Sembcorp Pipeline Corridor and having its own pipelines carrying utilities, that these have a common design life of between 15-25 years.
			Whilst Sembcorp accepts that apparatus can be enabled to continue to operate beyond its original design life, this is not indefinite and rarely more that twice the original design life. In addition, Sembcorp's own experience of UK PPP projects, is that a term of 60 years is sufficient.

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			Moreover the project has a decommissioning plan which is secured by R32 and, clearly, has a finite end date (albeit the exact date of final decommissioning might not be known at the present time).
			Sembcorp also notes that the Applicants agree that "the operational and maintenance activities along the CO2 Gathering Network are not 'constant', in the sense that they would not take place all the time or every day".
			However, they go on to assert that these activities "would take place regularly throughout the lifetime of the asset being in place, either through planned checks and maintenance activities or potentially in relation to unplanned maintenance activities which may arise from time to time. Whilst intermittent, their frequency would vary and they would occur throughout the lifetime of the asset."
			The Applicants appear to have missed the point: it is precisely this intermittent character of these activities which – in Sembcorp's submission – undermines the Applicants' entire case for the extensive proposed perpetual rights for the operational/maintenance phase to be acquired by compulsion i.e. temporary rights to use the relevant land (which can be exercised intermittently as and when required) will be more

ExQ2	Question to:	Question:	Sembcorp Response
			reason why permanent rights are needed in this regard.
			This would also accord with the practice adopted for other major infrastructure projects where appropriate temporary rights (of suitable scope in each case) are provided for both the construction and operational/maintenance phases. This recognises that whilst maintenance and inspection activities will occur throughout the lifetime of the asset in question, these require only the temporary use of land – permanent acquisition of rights and interests is not required to enable this type of intermittent activity.
			Accordingly, Sembcorp does not accept the Applicants' position that there is a need to secure the proposed rights indefinitely or on a perpetual basis as opposed to rights of a temporary nature and for a time limited period. On the basis of Sembcorp's own experience, it would suggest that a maximum period of 60 years would be sufficient.
			iii) Comment on the relevant updates to the dDCO [REP5-002] which include Sembcorp as a consultee to a number of Requirements

ExQ2	Question to:	Question:	Sembcorp Response
			Sembcorp welcomes the amendments to the dDCO to include Sembcorp as a consultee in relation to these Requirements.
			However, it considers that Sembcorp should also be included as a consultee for the following additional matters for the reasons set out in its previous submissions to the ExA:
			 R11(3) – permanent drainage systems R18(1) – construction traffic management plan R29 - There are established existing local liaison and consultation groups for Wilton which Sembcorp co-ordinates and attends. The Applicants should be required to participate in those Wilton groups as are relevant to its particular Works and to co-operate with Sembcorp in handling any complaints from local residents in a similar manner to that provided for in The Dogger Bank Teesside A and B Offshore Wind Farm Order 2015 S.I. 2015/1592, Schedule 12, Part 6, paras. 21 to 23.
			In addition, Sembcorp objects to the inclusion of R37. This is because a primary purpose of the requirement to consult Sembcorp before the RPA grants approval is in order to establish whether the matters in question would or might have such an effect on the Sembcorp operations.

ExQ2	Question to:	Question:	Sembcorp Response
			The inclusion of this additional R37 therefore defeats the object of including Sembcorp as a consultee in the first place.
			In addition, the new definition of "Sembcorp operations" inserted in article 2 of the dDCO is too narrow because it limits the scope of the relevant effects to the Order limits. As set out in Sembcorp's previous written submissions to the ExA, a material aspect of the risk which these consultation requirements seek to mitigate is where works within the Order limits have the potential to cause adverse effects on the plant and premises which rely on the Sembcorp Pipeline Corridor – which will often be located outwith the Order limits themselves. This is nevertheless an important material consideration for the RPA and should not be excluded in this manner as the Applicants have sought to do.
			iv) Provide an update on discussions in relation to voluntary agreements
			Sembcorp continues to work with the Applicants with the last meeting with the Applicants and their land agent held on 16 August 22.
			Sembcorp continues to support the Applicants' appointed pipeline designer, Costain, and its consultant, px, with design and position of the pipeline in such of the Sembcorp Pipeline

ExQ2	Question to:	Question:	Sembcorp Response
			Corridor as it can with the most recent technical design meeting held on 19 August 22.
			Bilateral discussions as to protective provisions and the grant of voluntary rights to the Applicants are ongoing. A further update on progress will be provided to the ExA in due course.
Protective	Provisions		
CA.2.16	All APs	The Applicants' Written Summary of Oral Submissions for CAH2 [Item 7, REP5-026] confirms the statutory undertakers to whom standard protective provisions set out in Parts 1 and 3 of Schedule 12 of the dDCO would apply to, and bespoke protective provisions at Parts 10, 11, 13, 25 and 26 which apply to statutory undertakers who are listed in the Book of Reference. Are any APs aware of any additional statutory undertakers to whom protective provisions should apply?	 * "National Rail Infrastructure Limited" should instead refer to "Network Rail Infrastructure Limited", and * "National Grid Transmission plc" should instead refer to "National Grid Electricity Transmission plc". With respect to the list of electronic communications code operators in Appendix 2 of REP5-026, Sembcorp is aware (from previous, separate negotiations unrelated to the examination) that Virgin Media Limited may have fibre optic cables and associated apparatus in the vicinity.
	ANDSCAPE AND VIS		
	MENT CONSENT ORI		
DCO.2.2	Applicants	R3(7) refers to the approximate number and location of cathodic protection posts and marker posts forming	Cathodic protection, in essence, utilises an electric field in order to address the risk of buried

Responses due by Deadline 6: 23 August 2022

GEOLOGY, HYDROGEOLOGY AND LAND CONTAMINATION

HISTORIC ENVIRONMENT

MAJOR ACCIDENTS AND NATURAL DISASTERS

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ExQ2 Question to: Question: Sembcorp Response

NOISE AND VIBRATION

PLANNING POLICY AND LEGISLATION

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