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Dear Mr Wheadon

APPLICATION REF: EN010103 – THE NET ZERO TEESIDE PROJECT

LAND AT AND IN THE VICINITY OF THE FORMER REDCAR STEEL WORKS SITE (TEESWORKS SITE), REDCAR AND IN STOCKTON-ON-TEES

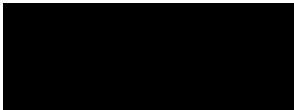
I write on behalf of the Applicants, Net Zero Teesside Power Limited and Net Zero North Sea Storage Limited, in respect of the submission made by Climate Emergency Planning and Policy (CEPP) dated 19th January 2024 in response to the Secretary of State's letter dated 20th December 2023. The Secretary of State's letter of 20th December invited interested parties to comment on the correspondence and information submitted by the Applicants on 13th December 2023.

The Applicants note that the Secretary of State has not invited comments on CEPP's 19th January 2024 submission, but consider that it may assist the Secretary of State for the Applicants to respond to the matters raised by CEPP. The Applicants' response is set out in the document that accompanies this letter 'Applicants' Response to Climate Emergency Planning and Policy Letter Dated 19th January 2024' (Document Reference: 9.54).

The Applicants' note that the deadline for determination of the application for the NZT Proposed Development is 16th February 2024. The Applicants confirm that this submission does not contain any new technical or substantive information, but rather it directs the Secretary of State to existing information that has already been provided. This submission also confirms the Applicants' previously stated position, and seeks to assist the Secretary of State on the apparent misunderstandings of that information in CEPP's latest submission.

I would be grateful if you could confirm receipt of this submission.

Yours sincerely,



Geoff Bullock
Director – Head of Planning
DWD – on behalf of NZT Power Limited & NZNS Storage Limited



Net Zero Teesside Project

Planning Inspectorate Reference: EN010103

Land at and in the vicinity of the former Redcar Steel Works site, Redcar and in Stockton-on-Tees, Teesside

The Net Zero Teesside Order

Document Reference: 9.54 Applicants' Response to Climate Emergency Policy and Planning Letter Dated 19 January 2024



Applicants: Net Zero Teesside Power Limited (NZN Power Ltd) & Net Zero North Sea Storage Limited (NZNS Storage Ltd)

Date: February 2024

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1.0 INTRODUCTION

1.1 Overview

1.1.1 This document is provided by the Applicants, addressing comments made by Climate Emergency Policy and Planning (CEPP) in its submission of 19 January 2024. The Applicants address those comments under the following headings:

- Emissions from Third Party Emitters and the Scope of EIA Assessment
- Continued Assertions of 'Double Counting'
- Reliability of Emissions Factors for Upstream Supply Chain
- Consideration of a Counterfactual

1.1.2 The Applicants confirm that this submission contains no new technical or substantive information. Rather, it directs the Secretary of State to existing information; confirms the Applicants' previously stated position; and seeks to assist the Secretary of State by clarifying apparent misunderstandings that are made in CEPP's 19 January 2024 submission.

1.1.3 It may also assist the Secretary of State to note the following chronology of the submissions that preceded CEPP's 19 January 2024 document. This chronology sets out the previous engagement on these and other emissions-assessment related issues, where the Applicants have provided detailed comment and analysis:

- **REP6-123:** this submission sets out the Applicants' cumulative GHG assessment, between onshore (NZT Proposed Development) and offshore (Northern Endurance Partnership, NEP) emissions, and was provided during Examination of the NZT Proposed Development in response to Examining Authority Written Question CC.1.5.
- **16 May 2023:** the Secretary of State issued a Request for Information (RfI) requesting information from the Applicants on the environmental impacts of the NZT Proposed Development alone and cumulatively with the wider Project.
- **30 May:** CEPP lodged a submission in response to the Secretary of State's 16 May RfI addressing, among other aspects, upstream methane emissions.
- **30 May:** the Applicants responded to the Secretary of State's 16 May RfI.
- **4 August:** the Applicants responded to CEPP's 30 May submission on upstream methane emissions and Well-to-Tank emissions.
- **7 August:** the Secretary of State invited parties to comment on information submitted by the Applicants on 30 May and 4 August.
- **6 September:** CEPP submitted a response to the Secretary of State's 7 August letter, including comments on counterfactual, allegations of 'double counting' and Well-to-Tank emissions.

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- **6 October:** the Applicants responded to the matters raised in CEPP's 6 September (and revised 12 September) submission. CEPP later submitted an amended response on 12 September.
 - **30 November:** the Secretary of State requested that the Applicants respond to CEPP's 6 October submission.
 - **13 December:** the Applicants responded to the Secretary of State's 30 November letter.
 - **20 December:** the Secretary of State invited parties to comment on the Applicants' 13 December letter.
 - **19 January 2024:** CEPP responded to the Secretary of State's 20 December letter.

2.0 EMISSIONS FROM THIRD PARTY EMITTERS AND THE SCOPE OF EIA ASSESSMENT

2.1.1 The Applicants do not accept CEPP's claim that there is any confusion around the inclusion or otherwise of emissions from third party emitters within the scope of the EIA assessment as presented in the Environmental Statement (ES) and the submissions made during and post examination (including those listed above).

2.1.2 Section 3.4 of the Cumulative Onshore and Offshore GHG Assessment [REP6-123] discusses the role of third party emitters and the fact that they remain beyond the scope of the EIA assessment. Paragraph 3.4.2 clearly states in relation to emissions from third party emitters that:

"These data do not form part of this cumulative assessment as they are outside the scope of the proposed NZT Development. They do represent additional potential carbon storage figures, when these third party emitters connect to the [Transport and Storage] (T&S) system."

2.1.3 The Applicants resubmitted all the data previously presented in the Cumulative Onshore and Offshore GHG Assessment in their letter to the Secretary of State of the 13 December 2023. Emissions to the atmosphere from third party emitters as a result of T&S unavailability are shown in Table 1, while carbon storage (gross and net) from third party emitters is presented in Table 2.

2.1.4 In their letter to the Secretary of State of 13 December, the Applicants highlight the fact that the presentation of emissions from third party emitters varied from the position in the Cumulative Onshore and Offshore GHG Assessment [REP6-123], but noted in paragraph 2.1.5 that this information was included "for completeness" (i.e. as context). At no point did the Applicants state or suggest that the scope of the EIA assessment had expanded to include emissions from third party emitters.

2.1.5 Crucially, the evaluation of significance of the GHG impact of the Proposed Development does not rely upon third party emissions data. The GHG impact of the Proposed Development has been evaluated as Beneficial and Significant, as set out in Section 3.6 of the Cumulative Onshore and Offshore GHG Assessment [REP6-123]. This evaluation was reached on the basis of the NZT Power Station's lifetime emissions when contextualised against the UK's national carbon budgets and seen in the context of the without-project baseline, and does not make reference, either directly or indirectly, to any emissions resulting from third party emitters.

2.1.6 CEPP state in its 19 January 2024 submission that: *"Although this data [i.e. third party emitters data] has previously been reported, it has not previously been used as part of the EIA Assessment. In the December 13th letter, the applicant [sic] departs from this and proposes using the third-party emitter data as part of the assessment."* To confirm, this statement by CEPP is incorrect insofar as it asserts that the third party emitter data is used as part of the Applicants' assessment. Any data relating to emissions, whether to the atmosphere or to geological storage, resulting from the activity of third parties has only been included in submissions to provide additional

context around further benefits, explicitly beyond the scope of the EIA assessment, that the NEP CCS network could provide.

- 2.1.7 Third party emitters data has not been used in the Applicants' assessment of the likely significant effects of GHG emissions and third party emitters data does not change the assessment of GHG likely significant effects as presented by the Applicants in the application, throughout examination or in post-examination submissions.

3.0 CONTINUED ASSERTIONS OF 'DOUBLE COUNTING'

- 3.1.1 The Applicants reject any claim by CEPP of double counting in the emissions data previously presented. This issue was addressed by the Applicants in their letter to the Secretary of State on 13 December 2023. In that submission, GHG emissions and storage data were presented by the Applicants so as to clearly exclude any suggestion of double counting of emissions data, and to present data to more easily inform the Secretary of State's decision-making process, subject to the exclusion of third party emissions data as discussed above.
- 3.1.2 Table 1 in the Applicants' 13 December letter summarised total emissions to the atmosphere resulting from the construction and operation of the Onshore element of the Proposed Development, the construction, operation and decommissioning of the Offshore element, and emissions resulting from unavailability of the T&S system from both the NZT Power Station and third party emitters. Table 2 summarised net carbon storage, taking account of projected unavailability of the T&S system.
- 3.1.3 CEPP's submission of 19th January makes the claim that:
"It is entirely clear that the post combustion carbon capture emissions for the onshore NZT project are implicitly included within the "Operation (25 years)" 16,782,184 tCO₂e figure in Table 1 above (and also in the same figure in [EN10103-002891]/Table 1."
- 3.1.4 This assertion is entirely incorrect. The proposed NZT Power Station is designed to operate with a post-combustion carbon capture system that will capture at least 90% of the carbon dioxide in the flue gases, with the remainder being emitted to the atmosphere. Table 1 includes the 10% of emissions that would be discharged to the atmosphere, while Table 2 includes the 90% (minus T&S unavailability) transported to geological storage.
- 3.1.5 Data presented in Tables 1 and 2 in the Applicants' letter to the Secretary of State of 13 December 2023 are therefore mutually exclusive. Emissions are either discharged to the atmosphere, as presented in Table 1, or they are stored underground as shown in Table 2. There is no possibility of any double counting between these two sets of data.
- 3.1.6 CEPP has provided no further justification or explanation in its 19 January 2024 submission as to why they continue to assert double counting in the Applicants' assessment.

4.0 RELIABILITY OF EMISSIONS FACTORS FOR UPSTREAM SUPPLY CHAIN

4.1.1 The Applicants addressed the issue of upstream, ('Well to Tank'), emissions from the natural gas supply chain in Section 2 of their submission to the Secretary of State of 4 August 2023. In that submission, the Applicants set out their rationale for using the well to tank emissions factor for natural gas, which was taken directly from the 2022 version of the UK Government's conversion factors for company reporting¹.

4.1.2 As the Applicants pointed out at paragraph 2.1.3 of their submission of 4 August 2023:

"The annual UK Government publication is an industry-standard dataset of emissions factors, and their continued use across multiple businesses, sectors and projects helps to ensure that operational emissions data is produced using the same overall scope, boundaries and assumptions, and is therefore comparable between different installations and operators. This official dataset is the standard to be applied for all projects with ongoing operational emissions and accordingly its use as a source of data for the NZT project GHG assessment is both rational and appropriate."

4.1.3 This remains the Applicants' position regarding the use of the Well to Tank emissions factor for natural gas applied to the fuel to be combusted in the NZT Power Station.

4.1.4 In relation to the specific arguments around the suitability of the upstream emissions factor raised by CEPP, the Applicants made the following points in their 13 December 2023 submission:

- The upstream emissions factor accounts for all potential emissions sources (venting, flaring, leakage, transmission & distribution etc) that may occur in between the point of extraction and point of use. The factor, therefore, is relevant to an end user consuming natural gas from the UK grid. As such, it takes account of the varying sources of gas into the gas grid, whether this is from domestic production on the UK continental shelf, imported from Norway via pipeline, or imported into the UK by ship in the form of liquefied natural gas (LNG).
- In relation to Indirect/Well to Tank Emissions from Fuels, paragraph 2.18 of the UK Government's Methodology Paper for Conversion Factors (Final Report)² that accompanies the annual dataset published by the Department for Energy Security and Net Zero (DESNZ) in 2023 makes this explicit:

¹ <https://assets.publishing.service.gov.uk/media/62aed8f6d3bf7f0af9463486/ghg-conversion-factors-2022-full-set.xls>

² <https://assets.publishing.service.gov.uk/media/647f50dd103ca60013039a8a/2023-ghg-cf-methodology-paper.pdf>

“The methodology developed allows for the value calculated for gas supply in the UK to be updated annually. This allows changes in the sources of imported gas, particularly LNG, to be reflected in the emissions value.”

- 4.1.5 The Applicants recognise that there will be future variation in the source of natural gas in the UK gas grid, with resulting impacts on the upstream emissions factor (which could be either positive or negative, as noted by the Applicants in their 4 August 2023 response to CEPP’s letter of 30 May 2023). But in the absence of government projections around the future mix of gas into the grid, the Applicants consider that the dataset published by the DESNZ and used in the Applicants’ assessment is an appropriate and robust source of data.
- 4.1.6 CEPP asserts that there are inconsistencies between the upstream emissions factor for natural gas published annually by DESNZ³, and information published by the North Sea Transition Authority (NSTA) on the current mix of gas into the UK grid⁴. On this point, the Applicants note that the annual dataset published by DESNZ provides a wide range of emissions factors supplied for the express purpose of quantifying GHG emissions.
- 4.1.7 The NSTA infographic, in contrast, was not published with the aim of providing an overall upstream emissions factor for natural gas, but to highlight the variation between the upstream carbon intensities of gas imported from various sources. The NSTA infographic does not, in fact, contain a single data point that could be used to estimate the upstream emissions factor per unit of energy supplied via the UK natural gas grid.
- 4.1.8 It is the Applicants position, therefore, that it is logical and appropriate to use a suitable emissions factor, taken from the annually-published DESNZ emissions factor dataset, to quantify the upstream Well to Tank emissions from natural gas consumed in the NZT Power Station.

³ <https://www.gov.uk/government/collections/government-conversion-factors-for-company-reporting>

⁴ <https://www.nstauthority.co.uk/media/5tib5x4n/nsta-gas-import-fact-sheet.pdf>

5.0 CONSIDERATION OF A COUNTERFACTUAL

- 5.1.1 Section 4 of CEPP's 19 January 2024 submission suggests that alternatives have not been properly considered by the Applicants, and goes on to assert that the objective and purpose of the NZT Proposed Development could be fulfilled by a renewable electricity project. This is a fundamental misinterpretation by CEPP of the role and purpose of the NZT Proposed Development.
- 5.1.2 The NZT Power Station, operating with carbon capture and storage (CCS), will provide up to 860MW of dispatchable, low-carbon electricity into the UK national grid. In doing so, its development will enable existing, unabated, gas-fired generation to be displaced, in support of the UK's carbon budgets and net zero targets.
- 5.1.3 The NZT Power Station could also provide the power required to operate the high pressure compressor station required for offshore transport and storage that is a core part of the T&S system, but it is important to note that the compressors may also be powered from the national grid. The T&S system, therefore, can operate without the involvement of the NZT Power Station.
- 5.1.4 The primary purpose, therefore, of the NZT Power Station is to maintain the UK's energy security through the generation and supply of dispatchable low-carbon electricity to the national grid at times of low renewable electricity generation capacity.
- 5.1.5 To suggest that the CCS network could equally be powered by an alternative, renewable, source of power is to fundamentally misunderstand the primary function of the NZT Power Station. There is no obligation on the Applicants in law or policy to consider an alternative that does not fulfil the role and purpose of the NZT Proposed Development, and such an alternative does not constitute a reasonable alternative considered by the Applicants.