Dear Sir/Madam,

Please find a letter and attachments on behalf of the Applicants, Net Zero Teesside Power Limited and Net Zero North Sea Storage Limited, in response to the Secretary of State's request for responses to interested party comments and further updates on protective provisions dated 22nd September 2023, relating to the Net Zero Teesside DCO Application.

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

Yours faithfully

Geoff Bullock

BA (Hons) BPI. MRTPI Joint Managing Partner Head of Planning, Energy & Infrastructure



Chartered Surveyors & Town Planners

6 New Bridge Street, London, EC4V 6AB



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Date: 6th October 2023 Your Ref: EN010103 Our Ref: 13626

Mr David Wagstaff OBE
Deputy Director
Energy Infrastructure Planning
Department for Energy Security & Net Zero
3-8 Whitehall Place
London



6 New Bridge Street London EC4V 6AB T: 020 7489 0213 F: 020 7248 4743 E: info@dwdllp.com W: dwdllp.com

By email: netzeroteessideproject@planninginspectorate.gov.uk

Dear Mr Wagstaff

SW1A 2AW

APPLICATION REF: EN010103 - THE NET ZERO TEESSIDE PROJECT

SECRETARY OF STATE'S REQUEST FOR FINAL COMMENTS AND UPDATES ON INTERESTED PARTY RESPONSES AND PROTECTIVE PROVISIONS IN RESPECT OF THE NET ZERO TEESSIDE DEVELOPMENT CONSENT ORDER ('THE NET ZERO TEESSIDE ORDER') APPLICATION

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 response to the Secretary of State's ('SoS's') request for a final comments and updates on Interested Party responses and outstanding matters regarding protective provisions on 22nd September 2023 relating to the Net Zero Teesside ("NZT") Development Consent Order ("DCO") Application.

The Applicants' comments on the responses received from Dr Andrew Boswell from Climate Emergency Policy and Planning ('CEPP'), NPL Waste Management Limited, Norsea and Anglo American (paragraph 2 of the SoS's letter) are set out in **Appendix A** appended to this letter.

The Applicants' final updates on outstanding matters relating to protective provisions (paragraph 3 of the SoS's letter) are set out in **Appendix B**, also appended to this letter.

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

Yours sincerely



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



Appendix A - Applicants' Comments on Interested Party Responses to Consultation 5

1.0 CLIMATE EMERGENCY POLICY AND PLANNING ("CEPP")

1.1 Introduction

- 1.1.1 The Secretary of State for the Department of Energy Security and Net Zero published a Consultation Letter on 7th August 2023 in respect of the Net Zero Teesside DCO Application. Climate Emergency Policy and Planning (CEPP) submitted a response to this letter on 6th September 2023 (and provided an updated version on 12th September, the version responded to here by the Applicants).
- 1.1.2 In the 6th September post-examination submission (revised version), CEPP claims that:
 - 1. The Applicants' greenhouse gas (GHG) counterfactual scenario is incorrect, arbitrary and unlawful.
 - 2. The Applicants' GHG cumulative assessment contains a double counting error.
 - 3. The Applicants have not considered the possibility of Well to Tank (WTT) emission factors varying over time.
 - 4. The Applicants have not considered the Transport and Storage (T&S) unavailability within the offshore emissions in their evaluation of the Carbon Budget Delivery Plan (CBDP).
 - 5. The Applicants have not considered the implications of the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023.
- 1.1.3 This response to the CEPP post-examination submission addresses each point mentioned above.

1.2 Choice of Counterfactual scenario

- 1.2.1 The Applicants do not accept the argument put forward by CEPP with regards to the allegedly "arbitrary" choice of counterfactual scenario.
- 1.2.2 The purpose of selecting a counterfactual scenario is to assess the significance of the projected GHG emissions resulting from the NZT development. The Applicants in Section 3.6 of Deadline 6 Submission 9.29 Cumulative GHG Onshore and Offshore Assessment August 2022 [REP6-123] have assessed the Proposed Development both in isolation and relative to the selected counterfactual scenario to provide a broader context.
- 1.2.3 The role of a counterfactual scenario is to provide a reference scenario that is expected to occur in the absence of the Proposed Development. For NZT, this counterfactual scenario essentially represents the source of electricity in the event that the Proposed Development does not go ahead.
- 1.2.4 The Applicants selected a Combined Cycle Gas Turbine (CCGT) running unabated as the counterfactual scenario as this represents the existing marginal generation capacity on the UK grid, and the generation capacity that needs to be replaced to help the UK meet its net zero targets.
- 1.2.5 CEPP states that the Applicants should have instead assumed that the energy otherwise generated would derive from renewables.
- 1.2.6 The Applicants have assumed that if the Proposed Development does not go ahead, the generation capacity required to meet the demand would derive from a non-renewable source. The abated CCGT in the Proposed Development represents a direct replacement for an unabated CCGT in the counterfactual scenario, with the fundamental purpose of

acting as a dispatchable, low-carbon-alternative to an existing gas fired power station. It is not appropriate or helpful to identify any renewable energy capacity as the counterfactual scenario, because this is not the source of power that the Proposed Development would seek to displace.

- 1.2.7 Electricity generation, transmission and distribution in the UK are part of a large interconnected system. It is therefore appropriate and reasonable to view the Low Carbon Electricity Generating Station (part of the Proposed Development) not as a standalone piece of generating capacity, but as a part of the interconnected system that will help replace existing, unabated higher-carbon electricity generation installations. For the same reasons, it is appropriate and reasonable to apply this broader approach when assessing significance, particularly when applied to electricity generation capacity.
- 1.2.8 Accordingly, the argument presented by CEPP at paragraphs 52 to 58 is based on a fundamental misunderstanding of the Applicants' counterfactual scenario, and CEPP's criticisms proceed from a false premise. The Applicants reaffirm that the counterfactual scenario in [REP6-123] is not based on the proposed CCGT without the Carbon Capture and Storage (CCS) element of the Proposed Development.
- 1.2.9 On alternative baselines, the IEMA guidance¹ states that:

'Alternative baselines can be used to supplement the analysis and address the ...For example: different locations, designs or layouts of building development; or an alternative energy generation option in the instance of a wind or solar farm proposal. However, a realistic worse-case baseline should still be used for assigning significance'.

1.2.10 Based on the guidance, the counterfactual scenario of a CCGT running without CCS (the existing marginal generation capacity on the UK grid) represents a more appropriate worst-case scenario than CEPP's suggested application of a renewable energy plant. The Proposed Development does not seek to displace generation from renewable sources, so it is clearly not appropriate to select renewable generation as a counterfactual.

1.3 Double counting

- 1.3.1 The Applicants do not accept the claim put forward by CEPP with regards to double counting of carbon removals. Furthermore, the Applicants' understanding is that the table identified as Table 3-4 in the CEPP submission is incorrectly identified as being provided in [REP6-121], and instead should be referenced as being included in [REP6-123]. The emission values in Table 3-4 of [REP6-123] in the Cumulative Greenhouse Gas summary must be seen in the light of the significance assessment in Section 3.6 of [REP6-123].
- 1.3.2 As discussed in Section 1.2 above, the Applicants have assessed the Proposed Development both in isolation and relative to the counterfactual scenario to provide a broader context. An assessment of the Proposed Development in isolation allows for the significance of the project to be viewed narrowly, by reference only to activities that would take place within the red line boundary and activities closely connected with those taking place within the red line boundary.
- 1.3.3 Electricity generation is part of the UK's interconnected energy system, however, and it is therefore both appropriate and necessary also to view the Proposed Development as

¹ Institute of Environmental Management and Assessment (2022). *Assessing Greenhouse Gas Emissions and Evaluating their Significance*. https://www.iema.net/resources/blog/2022/02/28/launch-of-the-updated-eiaguidance-on-assessing-ghg-emissions

an element within this interconnected system. There is a need for the Proposed Development now, with the replacement of high-carbon electricity generation with lower carbon dispatchable sources necessary to help deliver the UK's net zero goals and to provide energy security. The Applicants have provided detailed information on the need for the project which is not repeated here (see for instance the Planning Statement, REP1-003). Therefore, the fundamentally interconnected nature of the energy system means that a broader evaluation of significance, including consideration of an alternative counterfactual scenario, is appropriate.

- 1.3.4 As noted in Section 3.6 of [REP6-123], the GHG impacts of the Proposed Development could be assessed as Minor Adverse were it to be viewed in isolation. However, assessing it within the broader system-wide context described above, the Proposed Development is more meaningfully assessed as having a GHG impact that is Beneficial and Significant.
- 1.3.5 The methodology used for the cumulative assessment was carried out in line with the Applicants' approach for assessing the Proposed Development against the counterfactual scenario. This allows for consistency of approach within the Applicants' assessments, with the aim of assessing the Proposed Development within a broader context. As noted in the current IEMA guidance on assessing GHG emissions, "It is down to the practitioner's professional judgement on how best to contextualise a project's GHG impact."
- 1.3.6 Therefore, the overall emission values presented in Table 3-4 of [REP6-123], including the GHG removals of 53,364,418 tCO₂e, properly represent the projected net lifetime emissions relative to an unabated CCGT, i.e. the counterfactual scenario challenged by CEPP and justified in section 2.0 above.
- 1.3.7 Table 3-4 of [REP6-123] shows that relative to generation by existing, unabated CCGT capacity, the Proposed Development would result in projected lifetime emissions reductions of over 32.5 Mt CO₂e. This provides a reasonable representation of the anticipated net emissions position prepared in accordance with EIA Regulations.
- 1.3.8 For context, it is also important to recall that the figures in Table 3-4 take no account of any GHG emissions from third parties that might be connected to the CO2 Gathering Network, for the reasons summarised at paragraph 2.2.2 of [REP6-123]. An estimate of emissions that could be captured and stored from 3rd party emitters within the Teesside Cluster is provided in Table 3-3 of [REP6-123].
- 1.3.9 The data presented in Table 3-4 of [REP6-123] show the net GHG impact of the Proposed Development in the context of the wider electricity generating system, i.e. taking account of emissions avoided from an unabated CCGT due to the future operation of the Proposed Development. There is, therefore, no double counting of any GHG impact figures.

1.4 Selection of emission factors for upstream emissions

- 1.4.1 The Applicants are conscious of the variability of WTT emissions factors and recognise the multiple factors that can affect the carbon intensity of upstream natural gas supply chains.
- 1.4.2 At the time of producing the NZT NEP cumulative GHG assessment [REP6-123], the emissions factor applied to upstream emissions from the natural gas supply chain was

- taken from the most recent data available at that time, which was the 2022 conversion factors for company reporting dataset published by the UK Government².
- 1.4.3 Following the assessment, the UK Government published an updated set of emissions factors in June 2023. The Applicants note that the 2023 WTT factor for natural gas is almost 3% lower than the corresponding factor for 2022. In turn this means that if the Applicants' GHG assessment used the 2023 WTT factors, the upstream WTT emissions calculated would be proportionally lower than those reported in the NZT NEP cumulative GHG assessment.
- 1.4.4 The Applicants also acknowledge that, just as the corresponding 2023 figure was 3% lower than the 2022 figure, this may also vary upwards, as has happened in the past. This is because the WTT emissions factor is inherently variable as the source of natural gas into the UK gas grid varies between United Kingdom Continental Shelf (UKCS), imports via pipeline from Norway, or imports of Liquefied Natural Gas (LNG). Each of these sources has a different upstream carbon intensity, as noted by CEPP in their 6th September submission, and as the relative contribution of each source varies, so will the overall upstream carbon intensity of natural gas.
- 1.4.5 It is therefore not possible to project with certainty what the future mix will be, and therefore what the overall WTT emissions factor will be for any given point in the future. That lack of complete certainty is no different to any other EIA topic in all cases a future baseline must be established, based on the available data and professional judgment, exactly as the Applicants have done in the case of likely future WTT emissions. The Applicants therefore consider that the use of the 2022 emission factor in its assessment is entirely appropriate and provide an acceptable basis for the SoS to reach a reasoned decision on emissions.

1.5 Power sector emissions as a proportion of CBDP sectoral totals

- 1.5.1 The total projected onshore emissions, as shown in Table 3-4 of [REP6-123], were categorised and contextualised by the Applicants against sectoral totals from the CBDP, specifically for the Fuel Supply, Power, Industry, Waste and F-gases, and Domestic transport sectors. The Applicants note that while the UK's national carbon budgets are legally binding in support of the trajectory to net zero in 2050, the residual sectoral carbon projections provided within the CBDP are provided for additional contextualisation. The Applicants note that the sectoral projections within Table 2 of the CBDP are explicitly stated in the CBDP to be "only projections and should not be interpreted as hard sectoral policy targets."
- 1.5.2 The use of the sectoral projection within the CBDP for the purposes of contextualisation is therefore entirely reasonable and appropriate. Conversely, CEPP's suggestion that it is necessary for an individual applicant for development consent to undertake its own assessment of the risk of the Government's most recent suite of policies and proposals not being delivered⁴ is both unrealistic and unreasonable. The Government itself acknowledges in the CBDP that it expects the package of proposals will evolve to adapt to changing circumstances, and explains that it is "an extremely difficult process to

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² UK Government (2022). *GHG Conversion Factors for Company Reporting*. https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2022

³ Department for Energy Security and Net Zero (2023). *Carbon Budget Delivery Plan,* paragraph 19. https://www.gov.uk/government/publications/carbon-budget-delivery-plan

⁴ CEPP, 12th September 2023, Paragraphs 94-102.

precisely forecast those proposals and policies that will be in effect so far in the future"⁵. Whilst it is apparent from the CEPP representation that its author does not agree with this approach, that is not enough to establish that an assessment of risk of non-delivery is "vital and necessary" as suggested. The courts have consistently held that such disagreements between objectors and promoters as to the contents of environmental impact assessments are inevitable, but do not come close to showing that it would be unlawful for a decision-maker to conclude (as a matter of evaluative judgment) that the assessment is adequate⁶.

- 1.5.3 The Applicants acknowledge that the T&S unavailability figure of 3,592,523 tCO₂e, also shown in Table 3-4 of [REP6-123], should have been taken into account when contextualising the emissions against the sectoral total for the power sector, and therefore the Applicants acknowledge the higher share of power sector CBDP totals presented by CEPP.
- 1.5.4 **Table 1** below shows the amended contribution of residual operational emissions to relevant CBDP sectoral carbon budgets. Only the residual emissions and percentage contributions for the Power Sector are affected.

Table 1: Contextualisation of residual operational emissions, compared to relevant CBDP sectoral carbon budgets (as amended)

Secor	Estimated net GHG residual emissions (tCO ₂ e) – TOTAL 25 years operation	Estimated annualised net residual emissions (tCO ₂ e/yr)	Relevant (%) of Sectoral Carbon Budget		
			4 th (2023- 27)	5 th (2028-32)	6 th (2033- 37)
Fuel Supply	10,101,668	404,067	0.43%	2.93%	4.21%
Power	9,533,682	381,347	0.27%	3.03%	4.54%
Industry	392,506	15,700	0.01%	0.04%	0.07%
Waste & F-Gases	308,892	12,356	0.01%	0.06%	0.08%
Domestic Transport	37,959	1,518	0.00%	0.00%	0.00%

- 1.5.5 Recalculating the contribution of the Proposed Development's residual operational emissions, including T&S unavailability, to the sectoral carbon budget total for the Power Sector does not affect the overall assessment of GHG impact or the evaluation of significance. This applies to assessments carried out for the Proposed Development in isolation as well as relative to the identified counterfactual scenario.
- 1.5.6 The Proposed Development would result in reduced lifetime emissions relative to a counterfactual scenario of an existing CCGT running unabated, and the overall assessed significance of GHG impact remains therefore Beneficial and Significant.

1.6 The 2023 Regulations

1.6.1 CEPP's 6th September submission suggests that further air quality assessment is required for both the construction and operation of the Proposed Development. In particular,

⁵ Carbon Budget Delivery Plan, Paragraphs 3-4.

⁶ See e.g. per Ouseley J in *R (Bedford and Clare) v. Islington LBC* [2003] Env. L.R. 22 at [203].

- CEPP proposes that further work and an update to the Environmental Statement (ES) is required to address the Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 (the 2023 Regulations).
- 1.6.2 The 2023 Regulations were introduced to drive improvements in air quality nationally, with the targets applying at relevant monitoring stations, rather than being targets for use in the evaluation of PM2.5 effects within the planning process.
- 1.6.3 However, in the event that an assessment by reference to the 2023 Regulations was undertaken for the Proposed Development it would not require any updates to the ES for either the construction phase or the operational phase.
- 1.6.4 In the construction phase changes in PM2.5 were assessed due to emissions associated with construction traffic. Please see Table 8A-19 Results of Construction Traffic Impact Assessment at Human Receptors ES Vol III Appendix 8A Air Quality Construction Phase [APP-247]. The predicted concentration of PM2.5 from construction traffic ranged between 7.2 μ g/m³ and 8.6 μ g/m³, with changes of less than 0.1 μ g/m³. The predicted change in PM2.5 concentration is the lowest level that would typically be reported for changes in pollutant concentrations and total PM2.5 concentrations are already below both the interim annual mean target of 12 μ g/m³ in 2028 or the final 2041 annual mean target of 10 μ g/m³. This means that even if the 2023 Regulations were used to evaluate PM2.5 for the construction phase there would be no predicted exceedances nor a significant effect.
- 1.6.5 Particulates of any diameter, including fine particulates are not a pollutant of concern for the operational phase associated with the proposed combustion plant and carbon capture plant, see paragraph 8.2.6 ES Vol III Appendix 8B Air Quality Operational Phase [APP-248]. The Best Available Techniques (BAT) Reference Document for Large Combustion Plants (2017) (Section 1.3.2.3) that notes "The combustion of natural gas is not a significant source of dust emissions." This is because solid fuels which would require consideration for particulate emissions to air, including PM2.5 would not be burnt. Additionally, no operational traffic assessment was required for PM2.5 as the level of traffic change was too low to require an air quality assessment, see paragraph 8.2.1 ES Vol III Appendix 8B Air Quality Operational Phase [APP-248]. Therefore, a change in PM2.5 assessment threshold to the 2023 Regulations would not have any impact on the assessment relating to the operational phase in the ES as submitted.
- 1.6.6 In summary, the air quality assessment for the Proposed Development within the ES remains valid and no further work is required in relation to assessing the impact of the Proposed Development on air quality in the context of the 2023 Regulations.

2.0 NPL WASTE MANAGEMENT LIMITED ("NPL")

2.1.1 The Applicants acknowledge NPL's response and can confirm that negotiations are progressing as the option agreement is still being sought. The Applicants agent corresponded with NPL's agent in early August 2023 setting out timelines for progressing the agreements still outstanding. Following a further review internally on outstanding clauses the Applicants' agent responded to NPL on 15th August 2023 confirming that we would be responding in full to progress the agreements on the original timelines, and the Applicants agent then issued updated Heads of Terms with further updates on 23rd

⁷ Section 1.3.2.3 of the BREF for Large Combustion Plants uses the term "dust" to refer to all particulate matter including very small particles (i.e. PM10 and PM2.5) formed during combustion - JRC 107769 LCPBref 2017.pdf

August 2023. The Applicants consider that the Heads of Terms are very well progressed and may be in a finalised agreed form. The Applicants were therefore surprised to see NPL's submission stating that negotiations had ceased and which is clearly not the case.

3.0 NORSEA

3.1.1 The Applicants acknowledge Norsea's submission and have formally engaged with their representatives to ensure they are kept informed on the scheme and discuss any potential interaction with Norsea interests due to the close proximity of their pipeline easement and/or electricity supply cables.

4.0 ANGLO AMERICAN

4.1.1 The Applicants acknowledge and accept Anglo American's submission and confirm that this does alter the conclusions of the Cumulative Impact Assessment Updated Long List (Appendix 5A, August 2023).

Appendix B – Applicants' updates on protective provisions

Affected Party	Status of Protective Provisions			
Air Products Plc	No further update following the Applicants' 30 th August submission.			
CATS North Sea Limited	The parties have signed a side agreement and annexed protective provisions. CNSL have now withdrawn their objection to the Application.			
CF Fertilisers UK Limited	No further update following the Applicants' 30 th August submission.			
Huntsman Polyurethanes (UK) Limited	No further update following the Applicants' 30 th August submission.			
National Grid Electricity Transmission Plc	No further update following the Applicants' 30 th August submission.			
National Grid Gas Plc (now known as National Gas Transmission plc)	No further update following the Applicants' 30 th August submission.			
Navigator Terminals	No further update following the Applicants' 30 th August submission.			
Network Rail Infrastructure Limited	The parties are engaged in negotiating a side agreement and protective provisions and continue to seek to reach agreement on these documents. NRIL's solicitors provided comments on the private form of protective provisions which are proposed to be appended to the Framework Agreement on 30 August and the Applicant's solicitors have since responded with some initial queries and to request comments on the associated Framework Agreement, so that the two documents can be considered together. A response is awaited.			
North Tees Group	No further update following the Applicants' 30 th August submission.			
Northern Gas Networks	No further update following the Applicants' 30 th August submission. The Applicants note the procedures included in NGN's submission dated 8 th September and will continue to engage with NGN during the design and execution of the project.			
NPL Waste Management Limited (NPL)	No further update following the Applicants' 30 th August submission.			
SABIC UK Petrochemicals Limited	No further update following the Applicants' 30 th August submission.			
South Tees Development Corporation (STDC)	No further update following the Applicants' 30 th August submission.			
North Sea Midstream Partners (NSMP) incorporating Teesside Gas Processing Plant (TGPP) / Teesside Gas and Liquids Processing (TGLP)	No further update following the Applicants' 30 th August submission. The Applicants will continue to engage with NSMP's legal representatives and have a meeting scheduled for 9 th October.			