Author Details	
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Examination Principle Issues	• **Full lifecycle Greenhouse Gas (GHG) emissions** • **Cumulative assessment of GHG emissions** • **Scope of Development and Environmental Impact Assessment**

DEADLINE D4 SUBMISSION

I am an independent scientist and environmental consultant, working at the intersection of science, policy, and law, particularly relating to ecology and climate change. I work at a consultancy called Climate Emergency Policy and Planning (CEPP).

In so far as the facts in this statement are within my knowledge, they are true. In so far as the facts in this statement are not within my direct knowledge, they are true to the best of my knowledge and belief.

Contents

1 INTRODUCTION

1.1 Deadline 4 (D4)

1 This is my submission for Deadline 4 in response to the applicant's "9.12 Applicants' comments on Written Representations" [REP3-012].

2 APPLICANT'S PROPOSED UPDATED ASSESSMENT OF FULL LIFE-CYCLE CLIMATE CHANGE IMPACTS

2 I appreciate that the application proposes to update its assessment of the GHG emissions (ie Chapter 21: Climate Change [APP-103]) at Deadline 5 (2nd August 2022). I make some points below related below.

3 I understand the applicant to considers that this updated assessment will "reconsider" or address these points from the bullet list: (a), (e), (b), (c), (f) which the applicant gives at the start of their response. I now respond to these in turn.

2.1 (a) + (e): Full lifecycle assessment of natural gas

4 I await the applicant's assessment at Deadline 5. However, the approach given of using the BEIS/Defra 'GHG conversion factors for company reporting' does not provide **certainty** that the GHG emissions reported will actually describe how the gas power plant will operate. Therefore there is no certainty that the Environmental Statement correctly describes the environmental impacts of the scheme.

5 This is because, **firstly**, these factors provide the national average carbon intensity for the fuel (ie methane referred to 'natural gas') in commercial uses and **not** the carbon intensity for the actual fuel being consumed by the gas power plant; and, **secondly**, the factors are given for a recent year (for example, the latest data is for 2021) and do not predict how the relevant factor will change over time, and in particular, how the factor will vary with geopolitical events which may change the fuel supply sources used for the project.

6 The only way to provide certainty of the carbon intensity of the fuel source is to include a DCO requirement that the project can only operate when the feedstock gas is produced with a carbon intensity less than, or equal to, the IEA compliant annual projections which should be provided themselves as an addition to the Environmental Statement. This would provide the remedy for the first issue above.

7 The second issue requires full transparency and monitoring of the carbon intensity of the fuel source relating from where, and which type of sources, the fuel for the project is sourced. The comment at bullet (g) that the applicant sees no requirement for the proposed development to use gas of a particular carbon intensity is not helpful with respect to this second issue, and providing certainty that the Environmental Statement **correctly** reflects how the project is to operate.

2.2 (b): cumulative effects of the proposed scheme with other development

8 The applicant confuses two meanings of the word "impact" (and "effects") in referring to the IEMA Guidance and saying "*GHG emissions impacts and resulting effects are global rather than affecting a local area.*".

9 The **first** meaning of impact(s) is the impacts of carbon emissions from the project on achieving climate change targets, which can be assessed at national, regional or local level. The first meaning is the relevant one for considering if an assessment is compliant with the EIA Regulations. GHG emissions do impact targets and budgets at the national, regional or local level which is key to estimating and assessing the regulatory impacts of the project.

10 The **second** meaning of impact(s) is the direct geophysical and environmental impacts of aggravation of climate change, which is felt globally, but can result from GHG emissions anywhere on the planet. This second meaning is that used in the quote from the IEMA guidance above, but it does not mean that the IEMA guidance does not support local, regional and national assessment of the impact in the first meaning of the word. Quite the reverse, the IEMA guidance strongly recommends contextualisation of the GHG impacts on climate change targets: Table 1 and Figure 6 of the guidance sets out further sources of contextual information against which the GHG emissions of a project can be evaluated and assessed including sector-based and local targets.

11 As to the scope of cumulative assessment, the applicant again selectively quotes the IEMA guidance. The quoted paragraph:

> *"Effects of GHG emissions from specific cumulative projects therefore in general should not be individually assessed, as there is no basis for selecting any particular (or more than one) cumulative project that has GHG emissions for assessment over any other."*

is immediately followed by this paragraph (not quoted by applicant):

> *"The contextualisation of GHG emissions, as discussed in Section 6.4, should incorporate by its nature the cumulative contributions of other GHG sources which make up that context. Where the contextualisation is geographically – or sector-bounded (e.g. involves contextualising emissions within a local authority scale carbon budget, or a sector level net zero carbon roadmap), then the consideration of cumulative contributions to that context will be within that boundary."*

12 My proposed "first level" of cumulative assessment at REP2-061/39, which would cover greenhouse gases across the overarching "East Coast Cluster" (ECC) of which the NZT project is only a constituent element, is consistent with the sector bound contextualisation strongly endorsed by the IEMA guidance above. The "second" and "third" levels at REP2-061/40 and REP2-061/41 are also entirely consistent with the recommended best practice in the IEMA guidance, as geographical and/or sector-based carbon budget assessment.

13 The applicant states "information on the cumulative carbon emissions for the Proposed Development and the offshore transport and storage works will be provided at Deadline 5". The extension of the GHG assessment to the offshore transport and storage works is helpful, but it does not fulfil making an EIA Regulation compliant cumulative with "*with other existing and/or approved projects*" (paragraph 5(e) of Schedule 4 to the 2017 Regulations).

14 What the applicant is doing is extending the scope of estimating of the GHG emissions within the project itself: ie when the Proposed Development is considered in isolation. This is a **solus** quantification, and can only lead to a solus assessment with respect to the EIA Regulations. This is not assessing the application with "*with other existing and/or approved projects*".

15 My "first", "second" and "third" levels described at REP2-061 do fulfil the requirements of making an EIA Regulation compliant cumulative with "*with other existing and/or approved projects*". The applicant must demonstrate cumulative assessment against these or similarly chosen boundaries for cumulative assessment to follow the IEMA best practice guidance on EIA assessment.

2.3 (c): best practice for EIA for a cumulative assessment of greenhouse gas emissions, with local and regional and sectoral assessment of the project

16 The applicant selectively quotes the IEMA guidance again. The IEMA guidance at section 6.4 on "Contextualising project's carbon footprint" states **first** that assessment of a project's carbon emissions against the carbon budget for the entire UK economy **is only a starting point of limited value** in the EIA process. Table 1 and Figure 6 of the guidance sets out further sources of contextual information against which the GHG emissions and reduction actions of project can be evaluated including sector-based and local targets.

17 Currently the Environmental Statement does not follow the best practice for EIA, from the IEMA and EIA guidance, for a cumulative assessment of greenhouse gas emissions, with local and regional and sectoral assessment of the project. The applicant in its statements at REP3-012 provide no confidence that it will follow the best practice guidance in its proposed submission at Deadline 5.

3 OTHER COMMENTS

3.1 (f): The ES must be extended to include annual projections (targets) of the carbon intensities of the gas power station, based on full life-cycle analysis, in which methane leakage is rapidly curtailed in line with the methane reduction pathway implied by the International Energy Authority analysis (i.e. 66% reduction by 2030 from 2020).

18 See comments under (a) + (e) above. The only way to provide certainty of the carbon intensity of the fuel source is to include a DCO requirement that the project can only operate when the feedstock gas is produced with a carbon intensity less than, or equal to, the IEA compliant annual projections which should be provided in the Environmental Statement. The

applicant provides no certainty that the Environmental Statement properly assesses the impacts of the project if it does not provide such a requirement.

3.2 (g): Limit on Carbon intensity of feedstock gas

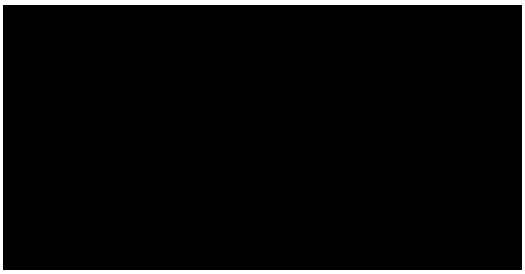
19 In saying that "*there is no requirement for the Proposed Development to use gas of a particular carbon intensity*" the applicant is confirming that they cannot produce an environmental statement which correctly describes the operation of the project. The GHGs associated with the scheme will vary with the carbon intensity of the source gas. The only way to ensure that the Environmental Statement does describe how the scheme will operate is to include a requirement that the project can only operate when the feedstock gas is produced with a carbon intensity less than, or equal to, the IEA compliant annual projections which should be included in the Environmental Statement.

3.3 (h): Applicant to provide information on the impact to national target for off-shore wind and trajectories for off-shore wind development 2030-2050 of the carbon store licences associated with the project

20 **The applicant has missed the wider issues of concern here.** A high-level assessment of the impact of the NZT project on Ørsted's Hornsea 4 project at Deadline 4 is helpful. However, this assessment does **not** answer the wider issues which are captured by the applicant's own summary of my concerns (as in the title of this subsection).

21 My point is quite clearly requiring an assessment of how the offshore store licences associated with the project would affect national targets for offshore wind development, both to 2030, and between 2030 and 2050 (ie not just the impact to the Ørsted's Hornsea 4 project although that is of considerable concern in itself). The Secretary of State must be able to make a balanced decision weighing all considerations. Without being provided with an assessment of how **a)** the national target of 50GW offshore wind by 2030, and **b)** government (BEIS) and CCC trajectories for offshore wind development post-2030 to 2050 will be affected by the NZT project, the wider "East Coast Cluster" (ECC) and their requirements for offshore carbon storage, the SoS is unable to make that balanced planning decision for the NZT project.

4 SIGNED



Dr Andrew Boswell,
Climate Emergency Policy and Planning, July 7th, 2022