

Contents

| | | |
|----------------|--|---|
| D7 / SECTION A | INTRODUCTION AND PURPOSE..... | 1 |
| D7 / SECTION B | CONSOLIDATION OF THE THREE DEFICIENCIES..... | 2 |
| D7 / SECTION C | FURTHER MATTERS ARISING FROM THE APPLICANT’S D6 RESPONSES..... | 5 |
| D7 / SECTION D | SECTION D — CONCLUSION | 7 |

D7 / Section A **Introduction and purpose**

- 1 Climate Emergency Science Law (“CESL”), Dr Andrew Boswell, makes this short closing note on the climate change aspects of the Proposed Development. A resume of CESL’s background was provided at Section F of the D1 Written Representation [REP1-077].
- 2 The purpose of this closing submission is to provide, for the convenience of the Examining Authority (“ExA”), a short consolidation of CESL’s position following CESL’s response to ExQ2 (18.2) at Section B of its D6 submission [REP6-103, section B]. This has been produced after a review of the Applicant’s Response to Deadline 5 Submissions [REP6-086], Table 3, and the Applicant’s Response to ExQ2 [REP6-087], Table 18 (Q18.1). It does not introduce new argument¹.
- 3 Save for the matters identified at Section C below, the climate matters in [REP6-086] and [REP6-087] restate positions already made in [REP5-066] and [REP5-063], to which CESL has already replied in its D6 submission [REP6-103] and Supplementary D6 submission [REP6-107]. CESL does not repeat those replies, nor introduce new arguments here.
- 4 This closing statement uses the same three-deficiency framework, and the same numbering, that CESL used throughout both its D6 submissions.
- 5 I have used AI to assist with drafting and refining the textual content of this note for clarity and presentation². A full statement on the use of AI is provided at Section I of [REP5-072].

¹ CESL relies on its filed submissions — principally [REP1-077], [REP3-085], [REP4-092], [REP5-072], and its D6 submission [REP6-103] and Supplementary D6 reply [REP6-107] — and cross-refers to them rather than repeating them.

² In accordance with PINS guidance on “Use of artificial intelligence in casework evidence”, 6 September 2024, [as updated 20 February 2026](#)

D7 / Section B Consolidation of the three deficiencies

The table below states each deficiency in summary, identifies where CESL has made it in full, and records why the Applicant’s D6 response does not meet it.

| CESL’s point (summary) | Where made in full | The Applicant’s D6 response, and why it does not meet the point |
|--|---|--|
| <p>Deficiency 1 — Territorial mismatch. The dominant emission component (ex-territorial upstream Scope 3) of CQLCP is <u>never separately identified, described, assessed, or evaluated for significance</u>; the only benchmark used (UK/Welsh carbon budgets) is, on the Applicant’s own concession [APP-058, 20.6.59³], structurally incapable of capturing it.</p> <p><i>[Reg 5(2) / Sch 4 para 5 / Reg 30(2)(b)(i)(aa)]</i></p> | <p>REP6-103 §B.3.1; REP6-107 §D; [REP5-072] §§E.1–E.5; [REP3-085] §B; [REP1-077] §B</p> | <p>[REP6-086] (Section E response⁴) confirms and broadens the concession: the Applicant expresses its own doubt about this approach (see footnote, “<i>as far as it is possible</i>”). The Applicant’s response confirms that substantial upstream emissions fall outside UK carbon budgets yet relies principally on those same budgets for significance contextualisation. The Applicant presses on with this approach, and mischaracterises it as ‘conservative’, when in fact it is methodologically flawed due to the territorial boundary issue – it is comparing “apples with oranges” [REP5-072, para 100].</p> <p>That <u>is</u> the gap that CESL identified in [REP5-072, para 104] — <u>the dominant component of emissions lies outside the scope of the benchmark being employed.</u></p> <p>The Applicant now accepts that a substantial proportion of the project’s upstream greenhouse-gas emissions fall</p> |

³ APP-058, 20.6.59 = “In reality, a substantial proportion of natural gas supply chain emissions are likely to fall outside of the UK’s jurisdiction and would not be reported within the UK or Welsh carbon budgets.”

⁴ [REP6-086], Section E response = “The IEMA guidance under which the GHG assessment was carried out and the evaluation of significance requires that emissions are contextualised against a relevant pathway to net zero; since there is no equivalent pathway or benchmark against which one can contextualise overseas emissions, these are by necessity compared so far as it possible to do so against Welsh and UK carbon budgets. The Applicant considers that this is a very conservative approach to take. The evaluation of the significance of the GHG impact of the Proposed Development as being Moderate Adverse is therefore affected by (amongst other things) the quantitative contribution of its emissions to the Welsh and UK carbon budgets in a very conservative way.

The Applicant would point out once again that the receptor for GHG emissions is the global climate and that the sensitivity of the global climate to GHG emissions is high, as noted in paragraph 20.3.9 of Chapter 20: Climate Change [APP-058]. The Applicant further notes that since a large proportion of upstream emissions will not be reported within legally binding carbon targets, and will not contribute to the UK’s 2050 net zero target, these emissions necessarily cannot jeopardise or otherwise affect the ability of the UK Government or Welsh Assembly Government to meet its targets or budgets.”

| CESL's point (summary) | Where made in full | The Applicant's D6 response, and why it does not meet the point |
|---|--|--|
| | | <p>outside the UK carbon-budget and net-zero accounting framework, yet those emissions remain effects of the Proposed Development and therefore still require assessment of their significance.</p> |
| <p>Deficiency 2 — Absolute assessment. The ES reaches its significance conclusion by contextualising the project's emissions against the UK and Welsh carbon budgets (20.6.68, following "But"). Two features of that method are in issue. First, the absolute figure so contextualised is a single undifferentiated total: it is not split into territorial and ex-territorial components, so the conclusion cannot speak to the dominant ex-territorial element on any absolute basis, and the only benchmark used is territorial. Second, the conclusion is presented murkily: at 20.6.66 the "without-project" (substitution) comparison "<i>suggests a beneficial impact</i>" and policy consistency "<i>indicates a minor adverse impact,</i>" and <u>that contradictory "beneficial" conclusion is never reconciled with the "moderate adverse and significant", absolute-emissions assessment, finding that follows.</u> CESL's position, in line with Whitehaven, is that the absolute-emissions assessment should be presented first, <i>and foregrounded and identified as the only legally obligated assessment. By law, substitution must be treated as secondary and non-determinative at the EIA assessment stage.</i></p> <p><i>[Reg 5(2) / Sch 4 para 5 / Whitehaven]</i></p> | <p>REP6-103 §B.3.2; REP6-107 §C; [REP5-072] §F</p> | <p>The Applicant's reliance on Table 20-8 [APP-058] as its "absolute emissions" answer ([REP6-086], Section F response) does not meet the point. Table 20-8 contains absolute <i>figures</i> but presents a single undifferentiated total; it does not separate the territorial from the ex-territorial component, and the figures are deployed only as an input to the single-paragraph carbon-budget comparison at 20.6.68 [APP-058].</p> <p>Further, Table 20-8 is operational emissions only (on its own title): it omits construction and decommissioning, and the Applicant's own GHG Reduction Strategy scopes decommissioning out entirely [APP-240, §3.2.4]. The ES therefore contains no single integrated assessment of the project's <i>full lifecycle</i> absolute emissions, and none that separates the ex-territorial component on an absolute basis.</p> <p>By way of example, CESL has presented full-lifecycle accounting, separating UK and ex-UK shares, in its indicative sensitivity analysis at [REP6-103 Appendices A, B and C].</p> |

| CESL's point (summary) | Where made in full | The Applicant's D6 response, and why it does not meet the point |
|--|---|--|
| <p>Deficiency 3 — Failure to disclose uncertainty. The ES does not disclose the material limitations of the DESNZ WTT factor (i.e. frozen Exergia 2015 emission intensities; 2021 DUKES supply-share weightings; updates ceased from 2023; a single Qatar LNG intensity applied to the now predominantly US imports), nor test emission-intensity sensitivity. The uncertainty in using <u>any</u> single emission factor has not been addressed, in the ES or in the sensitivity test.</p> <p><i>[Reg 5(2) / Sch 4 paras 5 and 6 / Reg 14(3)(b)]</i></p> | <p>REP6-103 §B.3.3; REP6-107 §E; [REP5-072] §B; [REP5-087 = EIR2026/02883]; [REP4-092] para 25(b)</p> | <p>The Applicant's IEA corroboration argument ([REP6-086], Section B response) does not meet the point. It compares the DESNZ factor against a single <u>global average</u> from the IEA.</p> <p>The issue remains that the ES does not disclose whether the DESNZ factor represents a central, conservative, or other position within the plausible range of upstream emissions identified in current evidence, and neither discloses nor assesses the uncertainty associated with representing the project's upstream supply chain by a single emission factor (Schedule 4 paragraph 6; Regulation 14(3)(b)). The same deficiency persists in the sensitivity test.</p> <p>The corroboration is, moreover, a GWP100 figure and does not engage addressing short-term climate impacts (i.e. GWP20 point).</p> <p>As CESL explains at Section C below, the IEA study in fact evidences the variability in Scope 3 emissions that has been the basis of CESL's case to the examination.</p> |

D7 / Section C Further matters arising from the Applicant's D6 responses

- 6 CESL addresses five matters arising from the Applicant's D6 responses, without prejudice to its primary case that the deficiencies are not curable by supplementary material [REP6-107 §F]. The IEA study and the Applicant's broadened concession were not before CESL when it filed its D6 submissions; the remaining matters respond to the Applicant's characterisation of the CCS energy penalty, the significance conclusion and the GWP20 metric.
- 7 **The IEA study (June 2025).** The Applicant relies on the IEA study "Assessing Emissions from LNG Supply and Abatement Options" (June 2025) as corroborating the DESNZ upstream emission factor [REP6-086, Section B response]. CESL makes the following points.
- (a) The corroboration rests on a comparison with a single global average upstream intensity (just under 20 gCO₂e/MJ in the IEA study). CESL's case has never depended on the precise value of the DESNZ factor in the abstract. CESL's position, maintained throughout, is that the ES neither characterises where the DESNZ factor sits within the plausible range of upstream emissions identified in current evidence, nor tests the uncertainty or plausible range of climate impacts [REP6-103 §B.3.3; REP5-072 §B; REP5-087 = EIR2026/02883]; and that the DESNZ factor is not suitable for an EIA assessment of upstream emissions covering the project years 2035 to 2065 (i.e. frozen Exergia 2015 emission intensities; 2021 DUKES supply-share weightings; updates ceased from 2023; a single Qatar LNG intensity applied to the now predominantly US imports). A demonstration that the DESNZ value sits close to a global average does not engage either proposition. CESL does not, and does not need to, accept that the average is the appropriate value.
 - (b) The central failing is one of failing to describe uncertainty: the ES does not describe or assess the uncertainty inherent in representing the project's upstream supply chain by any single emission factor, as Sch 4 para 6 and Reg 14(3)(b) requires. The Applicant's sensitivity test [REP5-063] does not remedy this, because it varies LNG share while holding emission intensity constant [REP6-103 para 73]. Reliance on a global average does not address that failing; an average is, by definition, a single point that conceals the very uncertainty range that requires disclosure.
 - (c) The IEA study demonstrates substantial variability between source regions and supply routes. So, it illustrates the uncertainty inherent in representing the project's upstream supply chain by any single factor. This is the very uncertainty⁵ that CESL maintains needs to be assessed under the regulations, but which the applicant has not assessed or disclosed.
 - (d) Finally, the IEA comparison is conducted on a 100-year GWP basis (1 tonne of methane = 30 tonnes CO₂e) and does not engage the short-term climate impact (i.e. the GWP20 question) at all.

⁵ The IEA study evidences the variability and uncertainty which the applicant has not disclosed. In its introduction, the IEA reports a more-than-fivefold variation in upstream intensity across supply regions (less than 6 gCO₂e/MJ for Norway; more than 26 gCO₂e/MJ for some exporters in Africa and Southeast Asia), and, for the single United States-to-Europe route, a range of published estimates from 16 to 56 gCO₂e/MJ — against which the IEA's own delivered-LNG global average of just under 20 gCO₂e/MJ is one average figure which masks a wide spread. A single frozen factor, weighted on 2021 supply shares and applying one source pathway (i.e. the DESNZ WTT factor), cannot represent that range, and the ES, consequently, does not disclose it. The IEA study therefore shows considerably more than an average: it shows the range that the assessment was required to address and disclose, and did not.

- 8 **The CCS energy penalty.** The Applicant states in [REP6-086] (Section B response) that the CCS energy penalty is “fully accounted for” in the Heat and Material Balance (HMB) tables. That is not disclosure in any meaningful sense: APP-058 reproduces none of the HMB tables, states only the net output of the abated plant, and nowhere discloses the parasitic load, the plant’s electrical efficiency, the CCS energy penalty, or the GHG emissions attributable to that penalty — parameters CESL had to reconstruct from the Applicant’s own data.⁶

The point is not that the penalty was absent from the Applicant’s model but that it was never disclosed or assessed in the ES, and in particular was carried silently through both the substitution comparison at 20.6.42–20.6.47 (Plate 20-2) and the D5 sensitivity test [REP5-063]. While the penalty is broadly fixed in energy terms, the GHG emissions attributable to it grow materially as different degrees of upstream uncertainty are modelled — because the additional fuel burned for the penalty carries higher, uncapturable upstream emissions — and the claimed saving falls sharply, as shown in CESL’s Figure 4 at [REP5-072],⁷ so neither the penalty nor its effect on the substitution case is before the decision-maker. This is a disclosure-and-assessment failure under Sch 4 para 6 and Reg 14(3)(b).

- 9 **The presentation of the significance conclusion.** The Applicant responds to CESL’s point on the significance conclusion by stating that it is “unambiguous” and pointing to paragraphs 20.6.68, 20.7.2 and Table 20-12, each of which records the overall evaluation as “moderate adverse and significant” [REP6-086, Section F response]. That answers a point CESL did not make. CESL’s point, made at [REP5-072] (Section F), is not that the final significance label is unclearly worded, but that the conclusion section presents conflicting evaluations the ES never reconciles: at paragraph 20.6.66 the without-project comparison “*suggests a beneficial impact*” and policy consistency “*indicates a minor adverse impact*”, and only at paragraph 20.6.68, after the word “But”, does the absolute carbon-budget comparison yield “*moderate adverse and significant*”.

The assessment that discharges the statutory obligation is thus both placed last and given least space, behind an extended narrative of matters — principally substitution — that Whitehaven establishes are not determinative of whether that obligation arises.⁸ This is the substitution problem at Deficiency 2 expressed in the presentation of the conclusion: it is the presence of the substitution comparison alongside the absolute assessment that produces both the unreconciled contradiction and the displacement of the obligated assessment to a single closing sentence.

- 10 **The characterisation of GWP20.** The Applicant states that applying a 20-year metric “*will result in higher apparent emissions relative to the use of the standard 100-year time horizon*” [REP6-087, Q18.1]. That framing misstates the point. GWP20 is not an inflated version of the GWP100 figure. The two metrics measure different things: GWP100 the heating integrated over 100 years, GWP20 the heating over 20 years — the period in which methane’s heating is concentrated, and which coincides with the Proposed Development’s operational life. They are both based in well-established science [REP3-085, section C].

⁶CESL’s reconstruction from the Applicant’s own ES data gives an implied unabated net electrical efficiency of 57.26%, an abated efficiency of 50.03%, and a CCS energy penalty of 7.23 percentage points: [REP5-072], Section F.6(A). APP-058 states only the net output of 1,380 MWe “accounting for the parasitic load” (20.6.23, 20.6.43).

⁷The energy penalty itself is broadly constant; what grows is its GHG impact. As upstream LNG supply-chain uncertainty is carried through, the emissions attributable to the energy penalty rise across the scenarios (shown as a distinct segment in CESL’s Figure 4), and the claimed saving over an unabated CCGT falls from 72.2% to as little as 13.5%: [REP5-072], Table 6 and Figure 4.

⁸The substitution and policy narrative runs across the paragraphs at 20.6.42–20.6.67 [APP-058], whereas the absolute carbon-budget evaluation that the EIA Regulations require is reached in a single sentence, following the word “But”, within paragraph 20.6.68: [REP5-072], Section F; CESL’s D6 submission, para 33.

CESL's point, made at [REP3-085, section C] and [REP5-072, section C], has never been that GWP20 produces a higher headline number to be preferred for that reason. It is that the EIA Regulations require the description of effects to address "short-term, medium-term and long-term" effects (Sch 4 para 5), and that a GWP100-only presentation does not, by construction, describe methane's near-term heating over the project's operational period — a category of effect the Regulations require to be described. That short-term methane forcing is a distinct and material climate impact, properly assessed through GWP20 alongside GWP100, is reflected in the IMO's adoption of dual-metric reporting in its international regulatory framework for methane-intensive fuels, to which the UK is a party — precisely because a GWP100-only presentation was found to omit near-term heating [REP3-085, section C; REP5-072, section C.1]. The question is therefore not whether the GWP20 figure is "higher", but whether the short-term climate effect has been described at all; characterising GWP20 as merely yielding "higher apparent emissions" does not engage that question.

- 11 **The Applicant's broadened concession.** As recorded in the table at Section B, the Applicant's D6 responses now state, more fully than previously, that the ex-territorial component falls outside the UK and Welsh carbon budgets and cannot affect the meeting of those budgets [REP6-086, Section E response]. CESL invites the ExA to note that this is a confirmation of the Deficiency 1 gap, not an answer to it. An effect that the chosen benchmark cannot measure, due to the "apples and oranges" methodological issue, is an effect that has not been assessed; it is not an effect that needs no assessment.

D7 / Section D Section D — Conclusion

- 12 CESL's position is unchanged and is set out in full in its filed submissions. The Applicant's D6 responses on climate do not cure the three deficiencies. On the matters at Section C:
- the IEA study compares the DESNZ factor against a single global average, which engages neither CESL's case that the ES does not disclose whether the DESNZ factor represents a central, conservative, or other position within the plausible range of upstream emissions identified in current evidence, nor the failure to disclose and assess the uncertainty associated with that choice;
 - and, on its own figures, the IEA study evidences the very variability the assessment omits;
 - the Applicant's assertion that the CCS energy penalty is "fully accounted for" mistakes presence in its model for disclosure in the ES;
 - the Applicant's answer on the significance conclusion addresses only the final of three conflicting labels and not the unreconciled contradiction within the conclusion section;
 - the Applicant's characterisation of GWP20 as yielding "higher apparent emissions" does not engage whether the short-term climate impacts have been described at all; and
 - the Applicant's broadened concession confirms the Deficiency 1 gap.
- 13 CESL accordingly maintains the cumulative position and proposed remedies set out at [REP6-103 §§B.5–B.6]: that the ES, as constituted and as supplemented by [REP5-063], fails to meet Reg 5(2) read with Sch 4 paras 5 and 6 and Reg 30(2)(b)(i)(aa), and that these are legal deficiencies, not matters of evaluative judgment within the Applicant's or decision maker's protected range. CESL does not repeat those submissions and relies on them.