Consultation response: Environmental Impact Assessment (EIA) – Assessing effects of scope 3 emissions on climate

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Question 1: Do you agree with the advice in the draft supplementary EIA guidance on how the baseline scenario should be set out in an ES?

Question 1(a): If not, please outline what else should be considered or done differently.

We believe the EIA guidance in its current form provides insufficient clarity as to how to define a baseline scenario, step 2 of the IEMA's six steps, and therefore can be easily misinterpreted. Given the objective of the assessment is to robustly assess the scope 3 emissions of a proposed project, it is vital to set out clear guidance on how to establish a baseline against which accurate emissions quantifications can be made.

Our key concerns are as follows:

- The guidance refers to the "… selected extent of assessment" but does not make it clear what this should be when establishing the baseline. For instance, should this cover emissions local to the project, across the UK, Europe or at a global level? Furthermore, the guidance states that the sources to consider should be "based on downstream activities for the extracted hydrocarbons" yet earlier notes that "it is important that the scope and extent of the downstream atmospheric emissions assessment within the ES are clear and that the scope of a proposed project is effectively set out". This latter statement muddies the waters and introduces undesirable flexibility to the definition of the extent of a baseline.
- Related to the above, the guidance states that "Current and historical emissions data may be used to establish a baseline" but neglects to set out how future emissions should be considered in a "realistic and reasonable" manner. As discussed in more detail below, climate change is driven by total global

cumulative CO_2 emissions since the industrial revolution and thus it is the future pathway of global emissions that matters with regards to how climate change plays out.

- Finally, the guidance states "The ES should quantify the difference between GHG emissions from a proposed project and the baseline scenario". Yet, as we set out below, the correct comparison to draw is between a Paris Agreement aligned baseline emissions scenario without the project (i.e. a do nothing case) and one with the addition of the emissions from the proposed new project.

This lack of clarity must be addressed if adequate insights on the real impact of a proposed project are to be assessed. We base our views on how a baseline should be set out on the following scientific principles:

- As the consultation reiterates, it does not matter where CO_2 emissions occur but only that they all contribute to global cumulative CO_2 emissions since the industrial revolution. It is this global total that linearly correlate with global heating temperature outcomes and in so doing establishes the foundational principle of a cumulative global carbon budget commensurate with limiting warming to 1.5°C.[1] For instance, as of 2024 the remaining total global carbon budget for a 50% chance of limiting warming to 1.5°C is 200 $GtCO_2$, which amounts to roughly 5 years of current global CO_2 emissions.[2] Thus the selected baseline emissions scenario against which to assess a proposed project must be global in extent and consider future emissions.
- As of 2023 the world derives ~82% of its primary energy from fossil fuels.[3] This level of incumbency means that today there is significant existing infrastructure to extract and consume fossil fuels, much of it built relatively recently. Indeed, studies have shown that the committed emissions from this fossil fuel energy system should it run for its expected operational lifetime, greatly exceeds the available carbon budget if climate change is to be limited to 1.5C[4]. Therefore, the baseline scenario employed in the environmental statement of any new oil and gas project must account for these committed emissions at a global level.

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[1] IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S.L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 3–32, doi:10.1017/9781009157896.001.

[2] Forster, P. M., Smith, C., Walsh, T., Lamb, W. F., Lamboll, R., Hall, B., ... & Zhai, P. (2024). Indicators of Global Climate Change 2023: annual update of key indicators of the state of the climate system and human influence. Earth System Science Data, 16(6), 2625-2658.

[3] IEA (2024). World Energy Outlook 2024. International Energy Agency, Paris.

[4] UNEP Emissions Gap Report 2023. https://www.unep.org/resources/emissions-gap-report-2023

- The headline goal of COP21's Paris Agreement is to "to limit the temperature increase to 1.5°C above pre-industrial levels." and the UK is a party to this agreement. As a result of this commitment, it is clear that the obvious default for a "reasonable" baseline scenario is one which achieves the main objective of Paris. In other words, the baseline scenario must be a global emissions pathway to 2050 and beyond that limits warming to 1.5°C.
- Following on from the point above, it is critical that the selected Paris-aligned global baseline scenario reflects science's best understanding of what is feasible in the global energy transition. With this in mind, criteria have been proposed by the IPCC[5,6], and also used by Green et al. (2024)[7], which help to enforce the precautionary principle when vetting potential 1.5°C scenarios. Two key areas of risk that need to be accounted for are the reliance a scenario places on removing carbon dioxide from the atmosphere (so-called carbon dioxide removal or CDR) and capturing carbon from fossil fuel combustion. Scenarios that lean too heavily on these options in order to limit global warming to 1.5°C in the long term have been identified as being of medium or high concern by the IPCC. To de-risk the chosen baseline and ensure its credibility, it is essential to screen such outliers.

Therefore, in summary we argue that for a robust and consistent emissions assessment to be made of a proposed new project it is critical that the baseline scenario used be: i) global in extent, ii) account for all source of emissions, including those from existing emitting infrastructure, today and into the future, iii) align with the Paris Agreement, i.e. produce global cumulative CO_2 emissions that stay within a 1.5°C compatible carbon budget and iv) ensure feasibility and follow the precautionary principle by not overly relying on CDR or fossil carbon capture.

A good example of a scenario that meets these criteria is the International Energy Agency's Net-Zero Emissions scenario[8]. Alternatively, the UCL Energy Institute develops and operates the TIAM-UCL global energy systems model which has been used to produce 1.5°C aligned emissions pathways (see, for example, Welsby et al.

[5] IPCC, 2018: Global Warming of 1.5°C: An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. https://www.ipcc.ch/sr15/

[6] IPCC 2022: WG3 Annex III, Table 8. https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_Annex-III.pdf

[7] Green, F., Bois von Kursk, O., Muttitt, G., & Pye, S. (2024). No new fossil fuel projects: The norm we need. Science, 384(6699), 954-957.

[8] IEA (2023). Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach. 2023 Update. International Energy Agency, Paris.

2021[9]). This modelling framework fits the criteria above while also representing a UK region to enable modelling of the UK's net-zero energy transition in a global context.

Question 2: Do you agree with the approach to the selection of relevant scope 3 emissions from different downstream activities to be included in the assessment, i.e., emissions borne from the refinery process, transport of the oil or gas and end-use combustion?

Question 2(a): If not, please outline what else should be considered or what else should be left out.

We are of the opinion that all scope 3 emissions should be included and reported separately. This includes scope 3 category 11 (as per the GHG Protocol) on emissions associated with sold products, which should be done for consistency with the recent Finch ruling. Clear guidance should be set on how emissions should be reported so as to avoid inconsistent reporting across submitted ES, and ambiguity on emission estimation.

We agree with the guidance on scope 3 emissions that the 'production figures used to derive the estimates should reflect a reasonable worst-case scenario i.e. the highest anticipated production levels specified in the application for consent submitted to the North Sea Transition Authority ("NSTA")'. We also agree with the guidance that any assumed substitution effects have no relevance to the estimation of scope 3 emissions from a specific project, as covered in the ES.

Question 3: To what extent do you agree with the advice given in the draft supplementary EIA guidance for evaluating the likely significant effects of scope 3 emissions on climate is helpful when it comes to preparing an ES?

Question 3(a): Do you have any other suggestions that could be considered?

We agree that considerations of significance are important to consider, which we define later in our response to this question, notably in reference to the IEMA (2022) guidance. However, we believe the EIA guidance in its current form is ambiguous in relation to defining the likelihood and significance of scope 3 emissions.

Our concerns are as follows:

- The guidance states that 'predictions of the magnitude and significance of the likely effects of scope 3 emissions must be included'. We think that the

[9] Welsby, D., Price, J., Pye, S., & Ekins, P. (2021). Unextractable fossil fuels in a 1.5° C world. Nature, 597(7875), 230-234.

guidance could imply that magnitude and significance are related, even if this is not the intention. The guidance should be clear so as not to be misconstrued. All CO_2 emissions have equal impact on the average global temperature increase. In addition, no single project on its own would ever appear large in global terms; therefore, magnitude of emissions is not an appropriate proxy for significance.

- The guidance continues by stating 'discussion of likely significant effects should be accompanied by an indication of the criteria used to determine whether an impact is 'likely' and whether it is 'significant''. We do not think that criteria for 'likely' should be considered. It should be assumed that for a given project, any oil and gas extracted over its lifetime operation will be combusted (as per the Finch ruling), resulting in scope 3 CO_2 emissions.

  The likelihood of scope 3 emissions could be questioned should a project developer argue that any oil and gas extracted might be used as feedstocks in petrochemicals. However, it is unlikely that they (the developer) would be able to provide the necessary definitive assurances that this would be the case over the project lifetime, and therefore a precautionary approach should be taken i.e. that oil and gas is likely to be fully combusted. Furthermore, only 5-10% of oil and gas is currently used as feedstocks meaning that the vast majority is combusted.[10]
- The guidance, when discussing significance, introduces unnecessary ambiguity stating that 'when assessing the likely significant effects of a proposed project, which comparators or contextual information are most relevant will depend on a range of factors'. The examples provided include 'the hydrocarbons expected to be produced (e.g. oil, gas, condensate) and whether the emissions are likely to occur in the UK or elsewhere'. In our view, such factors should not be used to determine significance, as we consider all CO_2 emissions to be significant, if they are additional to the 1.5°C baseline (as discussed below). Therefore, this should not be judged on the type of fossil fuels (and their relative carbon intensity), as all new fossil fuels projects irrespective of fossil fuel extracted have been shown to be inconsistent with a 1.5°C baseline. Furthermore, the territorial jurisdiction of the project location and where scope 3 emissions occur is also not relevant.

In relation to the guidance noting that the ES should outline what 'steps will be taken towards reducing GHG emissions over the project lifetime', we do not consider this as relevant. While this might be valid for scope 1 & 2 emissions, scope 3 emissions cannot realistically be controlled by the project developer. A developer could argue for

[10] Kapsalyamova, Z., & Paltsev, S. (2020). Use of natural gas and oil as a source of feedstocks. Energy Economics, 92, 104984.

'offsetting' their scope 3 emissions but this would not be in line with a precautionary approach, given the very high uncertainty around the potential of measures that could be implemented, such as CDR options.[11]

On significance, we think that it is useful to consider the guidance from IEMA 2022[12], who state that 'the crux of significance therefore is not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050'. As noted earlier, we argue that the baseline should be a 1.5°C compliant emissions trajectory. Therefore, an oil and gas project adding additional emissions would lead to adverse effects against this baseline, and should therefore be considered significant.

Emissions from new oil and gas projects would be 'additional' to the 1.5°C baseline (and therefore significant in respect of adverse effects) given the scientific evidence that there is no room for new oil and gas projects under such a baseline. Such evidence was provided by the IEA (2023)[13] in their Net Zero Emissions (NZE) pathway and supported by a broader evidence base most recently in Green et al. (2024),[14] published in the journal *Science*.

Analysis by Welsby et al. (2022)[15] specifically considered prospects for UK oil and gas projects, and also found that there was no room for new oil and gas field in the UK under a 1.5°C temperature goal. Note that since the publication of this report, the carbon budget compatible with 1.5°C limit has almost halved, strengthening this conclusion.

Furthermore, we think it is important to note the impact on the UK's soft power that the approval of new oil and gas projects can have. Under previous governments the country has framed itself as a leader on climate action and continues to do so under the new Labour government[16]. The approval of new domestic extraction activities runs the risk of significantly undermining this position and damaging the UK's international reputation on climate. This represents a different angle from which to assess significance but no less relevant.

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[11] Grant, N., Hawkes, A., Mittal, S., & Gambhir, A. (2021). The policy implications of an uncertain carbon dioxide removal potential. Joule, 5(10), 2593-2605.
[12] IEMA (2022). Assessing Greenhouse Gas Emissions and Evaluating their Significance. 2nd Edition. February 2022. Institute of Environmental Management & Assessment.
[13] IEA (2023). Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach. 2023 Update. International Energy Agency, Paris.
[14] Green, F., Bois von Kursk, O., Muttitt, G., & Pye, S. (2024). No new fossil fuel projects: The norm we need. Science, 384(6699), 954-957.
[15] Welsby, D., Price, J., and Pye, S. (2022). UK oil and gas policy in a 1.5°C world. University College London, February 2022.
[16] https://www.gov.uk/government/news/uk-shows-international-leadership-in-tackling-climate-crisis

Finally, we would argue that substitution arguments should not be used to underplay the significance of emissions arising from a given project. That is, arguments that the development of a project in the UK will mean that existing or planned projects elsewhere will not be operated or developed. This is not credible, and failed to gain traction in the recent Cumbria coal mine case[17]. If this argument were to be deployed, it should be incumbent on the developer to provide robust evidence that a new project would not lead to a net increase in emissions relative to the baseline, i.e. given that extracted oil and gas will be combusted (as per Finch), the developer of a new UK project must unambiguously identify oil and gas in existing or new projects elsewhere in the world which would not be extracted to compensate for extraction their new UK project. An overview of the inherent problems associated with the use of the substitution argument to support fossil fuel projects are described in an expert letter by Erickson et al. (2022) submitted in the *Millieudefensie versus Shell* case.[18]

In summary, we do not think criteria are needed to determine whether an impact is 'likely' as the assumption should be that all fossil fuels extracted will be combusted (as per the Finch ruling), and therefore lead to scope 3 emissions. On significance, we think this should always be judged based on whether a new project leads to additional emissions above a 1.5°C baseline. Any CO_2 emissions associated with extracted oil and gas will be 'significant' as we argue that developing new fossil fuel extraction projects will contribute to exceeding the 1.5°C baseline.

Question 5: To what extent does the draft supplementary EIA guidance provide clarity on how to approach identifying suitable mitigation measures and subsequently implementing those measures?

Question 5(a): Do you have any other suggestions that could be considered?

Where possible, mitigation measures are of course an important part of an ES. However, we have some concerns with the current guidance as set out.

- The guidance notes that 'Where the assessment of scope 3 emissions identifies significant adverse effects from a proposed project, consideration must be given to identifying suitable mitigation measures.' However, in reality, there is no mitigation measures that a project developer can put in place to reduce scope 3 emissions (as per paragraph 110 of the Finch case).

[17] https://cornerstonebarristers.com/cumbria-coal-mine-permission-quashed-on-four-grounds/
[18] Erickson, P., Green, F., Hagem, C., & Pye S. (2022). Expert Letter: The likely effect of Shell's Reduction Obligation on oil and gas markets and greenhouse gas emissions https://en.milieudefensie.nl/news/first-expert-statement/@@download/file/Expert%20Letter%20The%20likely%20effect%20of%20Shell%E2%80%99s%20Reduction%20Obligation.pdf

Where other (scope 1&2) emissions from an extraction project can be reduced, measures should of course be identified and backed up by credible investment plans to deal with such emissions. Speculative measures such as prospective CCS schemes should not be included in an ES unless there is credible evidence that they will be implemented.

- The guidance goes on to state that 'The ES must present a comprehensive description of the features of the project or measures to avoid, prevent, reduce or offset likely significant adverse effects of the proposed project on the environment. Offsetting should only be considered if other identified mitigation measures are not suitable.'

  We strongly recommend that offsets purchased via voluntary market schemes should be ruled out, due to wide ranging concerns about their integrity as an emissions reduction mechanism[19,20].

  Proposals for carbon dioxide removal measures to offset scope 3 emissions should also be ruled out for a number of reasons.

  Firstly, emissions and removals are fundamentally different, involving a completely different set of technologies with differing governance challenges and risks[21]. This is critical because while it is currently comparatively easy to emit a tonne of carbon it is more challenging to capture a tonne, nor is it clear whether it will ever be easy to do so in a cost-effective and socio-economically and environmentally sustainable manner at scale. Thus, permitting developers to argue that they can mitigate their proposed project's scope 3 emissions via CDR introduces unnecessary risks and is against the precautionary principle.

  Secondly, there already exists a sizable gap between countries plans for CDR deployment and the levels of deployment required to achieve 1.5°C according to IPCC scenarios[22]. This represents a disconnect between policy and the action required to achieve climate stability and indicates a failure of governance. Potentially adding to this failure by permitting proposals to rely on unproven CDR for mitigation would seem unwise.

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[19] Trencher, G., Nick, S., Carlson, J., & Johnson, M. (2024). Demand for low-quality offsets by major companies undermines climate integrity of the voluntary carbon market. *Nature communications*, *15*(1), 6863.
[20] Probst, B. S., Toetzke, M., Kontoleon, A., Díaz Anadón, L., Minx, J. C., Haya, B. K., ... & Hoffmann, V. H. (2024). Systematic assessment of the achieved emission reductions of carbon crediting projects. Nature communications, 15(1), 9562.
[21] Carton, W., Lund, J. F., & Dooley, K. (2021). Undoing equivalence: rethinking carbon accounting for just carbon removal. *Frontiers in Climate*, *3*, 664130.
[22] Lamb, W. F., Gasser, T., Roman-Cuesta, R. M., Grassi, G., Gidden, M. J., Powis, C. M., ... & Minx, J. C. (2024). The carbon dioxide removal gap. *Nature Climate Change*, 1-8.