Environmental Defenders Office

Submission to the Inquiry into the WA EPA Draft Revised Environmental Factor Guideline - Greenhouse Gas Emissions

21 September 2022

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Acknowledgment of Country

Environmental Defenders Office recognises the Traditional Owners and Custodians of the land, seas and rivers of Australia. We pay our respects to Aboriginal and Torres Strait Islander Elders past, present and emerging, and aspire to learn from traditional knowledges and customs so that, together, we can protect our environment and cultural heritage through law.

Submitted to:

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Background

On 16 April 2020, the WA Environmental Protection Authority (**EPA**) published version 3 of its Environmental Factor Guideline for Greenhouse Gas Emissions (**Existing Guideline**). Acknowledging that climate science and policy is a rapidly evolving space, and in an effort to address a range of issues considered by the EPA since it published the Existing Guideline,[1] the EPA is proposing to publish a revised environmental factor guideline for greenhouse gas emissions (**Revised Guideline**).

On 27 July 2022, the EPA released a draft version of the Revised Guideline for consultation (**Draft Revised Guideline**). The Draft Revised Guideline outlines how and when the EPA will consider greenhouse gas emissions in the environmental impact assessment (**EIA**) process set out in Part IV of the *Environmental Protection Act 1986* (WA) (**EP Act**).

We welcome the opportunity to provide comments on the Draft Revised Guideline. We commend the EPA for developing the Existing Guideline and for reviewing its content following consultation and experience assessing greenhouse gas emissions over the past two years. We also commend the EPA for making some progress toward a science-based policy that fulfils the EPA's obligations under the EP Act. However, the Draft Revised Guideline falls short in a number of respects. Accordingly, we offer the follow comments and recommendations for amendment.

EDO's submission on Draft Revised Environmental Factor Guideline for Greenhouse Gas Emissions (**Draft Revised Guideline**) is couched in the context of its Roadmap for Climate Reform (**Roadmap**). We advocate for reform that is science-aligned, prudent and ambitious enough to meet the scale of the climate crisis.

Summary of recommendations

Amendment of environmental objective

Recommendation 1: to ensure that the objective of the Revised Guideline accurately reflects the EPA's role and powers, the phrase "as far as practicable" should be deleted from the stated objective of the Draft Revised Guideline.

Guidance for when prosposals will not be recommended for implementation

Recommendation 2: The starting point for the Revised Guideline must be that the EPA cannot recommend implementation of any new fossil fuel proposals.

Recommendation 3: The Revised Guideline should make clear that it will be used by the EPA to determine when a proposal will be considered environmentally unacceptable and therefore not recommended for implementation, and set out the circumstances or threshold at which a proposal will be considered environmentally unacceptable and therefore not recommended for implementation.

[1] WA Environmental Protection Authority, *Draft Revised Environmental Factor Guideline—Greenhouse Gas Emissions* (Web Page) <https://consultation.epa.wa.gov.au/policy-and-guideline-development-and-review/draft-revised-environ-factor-guideline-green/>

Reference to best available science

Recommendation 4: The Revised Guideline should include reference to the conclusion of the Intergovernmental Panel on Climate Change (**IPCC**) that the world is on track to exceed 1.5°C, and even 2°C, of warming without deep reductions in emissions in the coming decades.

Recommendation 5: The Revised Guideline should consider the significance of greenhouse gas emissions from a proposal consistently, irrespective of "scope".

Recommendation 6: The Revised Guideline should not refer to a straight-line/ linear emissions reduction trajectory from 2030 in the context of asserting that such emission pathway is consistent with meeting the EPA's goal of limiting warming to 1.5°C, unless that trajectory is supported with a carbon budget and references to current and anticipated future emission levels that established the warming goal will be met.

Recommendation 7: The Revised Guideline should require that proponents provide estimates of greenhouse gas emissions using an up-to-date global warming potential for methane, on both a 20-year and 100-year time horizon, to ensure that the risk of harm from emissions is properly considered.

Mitigation of "scope 3" emissions

Recommendation 8: The Revised Guideline should require the same standard of mitigation effort for all "scopes" of emissions, because they all pose the same risk and have the same impact. Where "scope 3" emissions cannot be sufficiently mitigated, the EPA should recommend the proposal not be implemented.

Threshold for consideration of greenhouse gases

Recommendation 9: The Revised Guideline should state that greenhouse gas emissions of all referred proposals will be considered. The EPA should rely on a numerical threshold only for proposals that would not otherwise be assessed by the EPA (i.e., because their only likely significant effect on the environment is through the emission of greenhouse gases).

Recommendation 10: Where a numerical threshold for when greenhouse gas emissions will be considered is applied, the threshold should be set at no higher than 10,000 tCO2-e per year from all scopes or 100,000 tCO2-e over the life of the proposal.

Reliance on offsets as a mitigation measure

Recommendation 11: Because of the unreliability of offsets, including ACCUs, the Revised Guideline should make clear offsets should not be relied upon to reduce environmental harm to acceptable levels. The Revised Guideline should make clear that where a proposal is not environmentally acceptable without the use of offsets, the EPA should recommend that the proposal not be implemented.

Additional measures for Greenhouse Gas Management Plans

Recommendation 12: The Revised Guideline should require that key measures in Greenhouse Gas Management Plans be recommended as conditions on a Ministerial Statement.

Recommendation 13: The Revised Guideline should require that publication and reporting on compliance with a Greenhouse Gas Management Plan be annual, to ensure that non-compliance is able to be rectified in order to meet medium-term emission reduction targets (without the use of offsets).

Enforceability of measures in Draft Revised Guideline

Recommendation 14: The EPA should delineate as a programme under an environmental protection policy those parts of the Revised Draft Guidelines concerning requirements for the protection, control and abatement of greenhouse gas emissions to protect the whole of the State.

Recommendation 15: The EPA should exercise its power under s 122 to draw up as administrative procedures those parts of the Draft Revised Guideline that relate to the principles and practices of environmental impact assessment or incorporate them into the EPA's existing administrative procedures.

Section 46 reviews of existing projects

Recommendation 16: Following finalisation of the Revised Guideline, the Minister should promptly commence section 46 inquiries to impose and strengthen greenhouse gas emission conditions on existing projects (again, without the use of offsets).

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I. The EP Act requires the EPA to take action on climate change

As the EPA recognises in the Draft Revised Guideline, it is appropriate for the EPA to consider the effects of proposals that produce greenhouse gas emissions. It is not only appropriate but a necessary requirement of the EP Act that the EPA consider such emissions and their impact on the environment. This is because the EP Act:

a. has as its fundamental purpose environmental protection, and the principles of ecologically sustainable development;[2]

b. establishes the EPA as an independent expert body[3] to inform the government and the citizens of WA on environmental impacts and risks;

c. stipulates that the objective of the EPA is to use its best endeavours to protect the environment and to prevent, control and abate pollution and environmental harm;[4]

d. provides the EPA with a wide range of statutory functions and powers to achieve that objective and to further the purpose of the Act,[5] and the resources to discharge these;[6] and

e. establishes frameworks including environmental protection policies,[7] the environmental impact assessment process,[8] and enforcement and penalty schemes,[9] to ensure that the purpose of the EP Act is fulfilled.

We trust that the EPA, and all decision-makers under the EP Act and across government, understand that climate change poses a real and imminent existential threat to the ecosystems and people of WA. We trust that the EPA, along with all other decision-makers under the EP Act and across government, will exercise their powers and functions not to further the climate crisis, but to ensure that emissions are reduced in accordance with what the science dictates is necessary to limit global warming to the temperature targets which Western Australia, Australia, and the world have committed.

II. The environmental objective should not be limited by the concept of practicability

EPA's stated environmental objective for the Draft Revised Guideline is to "minimise the risk of environmental harm associated with climate change by reducing greenhouse gas emissions as far as practicable."[10]

While we commend the EPA for moving away from the inadequately defined objective in the Existing Guideline, the environmental objective in the Draft Revised Guideline is inconsistent with the EPA's obligations under s 15 of the EP Act. As set out above, the EPA is established as an independent expert body with the objective of using its best endeavours to protect the environment and to prevent, control and abate pollution and environmental harm. Consideration of other competing

[2] EP Act s 4A.
[3] EP Act ss 7, 8, 12.
[4] EP Act s 15.
[5] EP Act ss 16, 17.
[6] See, eg, EP Act ss 17A, 24, 25.
[7] EP Act Part III.
[8] EP Act Part IV.
[9] EP Act Parts VI, VIA.
[10] Draft Revised Guideline, p 1.

policy interests that might be weighed in determining the "practicability" of emissions reductions are outside the remit of the EPA. Accordingly, to ensure that the objective of the Revised Guideline accurately reflects the EPA's role and powers, the phrase "as far as practicable" should be deleted from the objective.

Additionally, where the Draft Revised Guideline currently refers to "best practice" and "reasonably practicable" mitigation, it should be clarified that this is not merely encouragement for proponents to do the right thing. Industry practice, or even best practice, may not deliver the environmental outcomes identified in the Guideline and in the scientific resources outlined above. Using these concepts in environmental impact assessment would be arbitrary and unrelated to the objective in the Draft Revised Guideline and the EPA's statutory objective.

In order to clarify the EPA's expectation of proponents, references in the Draft Revised Guideline to "best practice" and "reasonably practicable" should be removed. The Revised Guideline should instead emphasise that the EPA's fundamental consideration is whether a proposal is consistent with its objectives for the stated environmental factor. As discussed further below, this requires that the EPA will recommend against implementation where a proposal would unacceptably contribute to pollution and environmental harm associated with climate change, and be inconsistent with the EPA's objectives.

III. The starting point for any guideline must be that EPA will not recommend implementation of any new fossil fuel projects

At outset, we remind the EPA that it is a component of the Earth System.[11] It is an institution of the anthroposphere with the ability to affect future outcomes. The decisions the EPA makes today will affect the level of risk that the environment and people of WA face in the future. The time has come for the EPA to stop recommending the implementation of projects that will add to the climate problem. The EPA must accept that the decisions it makes under the EP Act have real and direct consequences for the global climate and in turn the people of WA.

The Draft Revised Guideline rightly acknowledges the insufficiency of Nationally Determined Contributions under the Paris Agreement.[12] In light of the failure of nation states to take the action necessary to achieve their obligations under the Paris Agreement, it is a moral imperative that decision makers at all levels of government apply the law in ways that will ensure the safety and survival of the people and ecosystems affected by those decisions. Indeed, this is the very obligation imposed on the EPA by s 4A of the EP Act. Any decision on the Draft Revised Guideline must be made with acknowledgement that the responsibility that sits with the EPA and the individuals carrying out the EPA's functions is no less than a matter of life and death for the ecosystems and people of WA.[13]

[11] Steffen, W., K. Richardson, J. Rockström, H.J. Schellnhuber, O.P. Dube, S. Dutreuil, T.M. Lenton and J. Lubchenco (2020) The emergence and evolution of Earth System Science. *Nature Reviews: Earth and Environment* 1:54-63.

[12] Draft Revised Guideline, p 3, referring to United Nations Framework Convention on Climate Change, (Paris, 12 December 2015, in force 4 November 2016), UN Doc FCCC/CP/2015/L.9/Rev/1 (12 December 2015) (**Paris Agreement**).

[13] See, e.g. Vargas Zeppetello, L.R., Raftery, A.E. & Battisti, D.S. Probabilistic projections of increased heat stress driven by climate change. *Commun Earth Environ* 3, 183 (2022). https://doi.org/10.1038/s43247-022-00524-4.

As courts in Australia have already concluded, in considering the potential impacts of climate change upon future generations in Australia:

> *It is difficult to characterise in a single phrase the devastation that the plausible evidence presented in this proceeding [about the impacts of climate change] forecasts for the Children. As Australian adults know their country, Australia will be lost and the World as we know it gone as well. The physical environment will be harsher, far more extreme and devastatingly brutal when angry. As for the human experience – quality of life, opportunities to partake in nature's treasures, the capacity to grow and prosper – all will be greatly diminished. Lives will be cut short. Trauma will be far more common and good health harder to hold and maintain. None of this will be the fault of nature itself. It will largely be inflicted by the inaction of this generation of adults, in what might fairly be described as the greatest inter-generational injustice ever inflicted by one generation of humans upon the next.*[14]

With this in mind, we commend the EPA for the position expressed in the Draft Revised Guideline that 'global warming should be limited to no more than 1.5 degrees Celsius (1.5C) above pre-industrial levels to minimise the risk of environmental harm to WA's environment.'[15]

Yet, in direct contrast to that position, and at a time when:

a. the United Nations Secretary-General has warned that "[i]nvesting in new fossil fuel infrastructure is moral and economic madness,"[16]

b. the EPA itself acknowledges the scientific consensus that allowing the world to heat by more than 1.5°C degrees will cause 'catastrophic consequences,'[17]

c. WA ecosystems 'are already at critical thresholds and further warming will result in damage and loss that is irreversible,'[18]

d. Best-practice measures to avoid and reduce greenhouse gas emissions can include facility closure;[19] and

e. the scientifically credible pathway to limiting warming to EPA's goal of 1.5°C requires that no new gas and oil fields be approved for development after 2021;[20]

the EPA has released a Draft Revised Guideline that could accommodate the EPA recommending implementation of new fossil fuel projects.

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[14] *Sharma v Minister for Environment* [2021] FCA 560 [293], finding not overturned on appeal.
[15] Draft Revised Guideline, p 2.
[16] UN Secretary-General Antonio Guterres, 'Secretary-General Warns of Climate Emergency, Calling Intergovernmental Panel's Report 'a File of Shame', While Saying Leaders 'Are Lying', Fuelling Flames (Media Release, 4 April 2022) <https://press.un.org/en/2022/sgsm21228.doc.htm>
[17] Draft Revised Guideline, p 2.
[18] Draft Revised Guideline, 3.
[19] Draft Revised Guideline, p 8.
[20] International Energy Agency, *Net Zero by 2050: A Roadmap for the Global Energy Sector – Summary for Policymakers* (May 2021), p 11, available: https://iea.blob.core.windows.net/assets/7ebafc81-74ed-412b-9c60-5cc32c8396e4/NetZeroby2050-ARoadmapfortheGlobalEnergySector-SummaryforPolicyMakers_CORR.pdf

Insofar as the Draft Revised Guideline would permit the approval of new fossil fuel projects, this is contrary to key principles of the EP Act as set out in s 4A:

a. the precautionary principle;

b. the principle of intergenerational equity;

c. the principle of the conservation of biological diversity and ecological integrity; and

d. the polluter pays principle.

The urgency of the climate crisis now dictates that, for fossil fuel production and infrastructure proposals, the only Part IV assessment report recommendation consistent with science and the objects of the EP Act is one that recommends the proposal not be implemented. To pretend, or allow otherwise, is contrary to EPA's legal obligations, scientific consensus, and the moral obligation owed by this generation to future generations.

IV. The Draft Revised Guideline should include circumstances where the EPA will recommend proposals not be implemented

Section 15 of the EP Act requires that the EPA use its best endeavours to '*prevent*, control and abate pollution and environmental harm'.[21]

Putting aside fossil fuel and infrastructure proposals, the recommendation for implementation of which is inconsistent with scientifically credible pathways to limiting warming to1.5°C, currently nothing in the Draft Revised Guideline describes the circumstances in which the EPA may recommend a proposal not be implemented because the risk of environmental harm associated with climate change is too great. Despite the statement in the Draft Revised Guideline that "[t]he intent of EPA guidelines is to inform the development, consideration and assessment of a proposal, not determine the outcome of the EPA's consideration under Part IV of the EP Act",[22] the Draft Revised Guideline appears to proceed from the assumption that proposals will be recommended for implementation. For instance, while the Draft Revised Guideline offers a threshold for when greenhouse gas emissions may be considered, it fails to offer a threshold for when the risk of environmental harm from the greenhouse gas emissions of a proposal is too great for EPA to recommend implementation.

This is particularly concerning given that, when applying the Existing Guideline, the EPA has a practice of deferring consideration about whether "residual emissions" of a proposal are environmentally acceptable, apparently on the basis that such a decision is exclusively for a s 45 decision-maker.[23] The necessary implication is that EPA has failed to consider its power (and indeed

[21] See also Draft Revised Guideline, p 1.

[22] Draft Revised Guideline, p 2.

[23] For example, the Waitsia Gas Project Stage 2 (EPA Report 1687), in respect of which the EPA defended appeals under Part VII of the EP Act on the basis that "it is for the decision makers under section 45 of the EP to consider whether the residual emissions from the proposal are acceptable" (Office of the Appeals Convenor, *Appeals Convenor's Report: Appeals in Objection to EPA Report and Recommendations – Report 1687: Waitsia Gas Project Stage 2* (January 2021), p 34, available: https://www.appealsconvenor.wa.gov.au/oac/files/045-20%20Appeals%20Convenor%20Report(1).PDF. See also Office of the Appeals Convenor, *Appeals Convenor's Report: Appeals in Objection to EPA Report and*

obligation to consider) under s 44(2)(b) of the EP Act to recommend a proposal not be implemented if it is unacceptable from an environmental perspective. The EPA's sole focus is environmental considerations, and its function in Part IV is to comprehensively inform the government and public about the impacts of a proposal on the WA environment. Accordingly, the EPA is required to make clear findings on whether a proposal is acceptable from an environmental perspective having regard to all of the likely impacts of all of its greenhouse gas emissions.[24]

As EPA correctly observes in the Draft Revised Guideline,[25] the mitigation hierarchy prefers avoidance over minimisation and offsetting, as the most effective mechanism for preventing pollution and environmental harm associated with climate change is to avoid contributing further to the current dire situation. This is consistent with the science that makes clear that no new fossil fuel projects should be approved if we are to limit global warming to 1.5°C, which is the target that the EPA has identified in the Draft Revised Guideline.

Further, to ensure that the Draft Revised Guideline accurately conveys the task and functions of the EPA, a statement should be added in the section "How are EPA guidelines applied?" to the effect that the Guideline will also be used by the EPA to determine whether a proposal is environmentally acceptable and, as required under s 44(2)(b), the EPA's recommendations on whether or not a proposal may be implemented.

To ensure that the Draft Revised Guideline is science-based and properly fulfils the EPA's obligations, we recommend that the Draft Revised Guideline be amended to make clear the threshold or circumstances in which greenhouse gas emissions from a proposal would be considered environmentally unacceptable. This will need to include the science-based, legally defensible position that any new fossil fuel projects will have unacceptable environmental impacts and should not be recommended for implementation.

V. The Revised Guideline should be informed by the best available science on climate change

In performing its functions under s 16, including when preparing assessment reports under s 44, the EPA's decision must be informed by the best available scientific evidence.

The EPA is to be commended for clearly stating the scientific context in which it has prepared the Draft Revised Guideline, and how its legal obligations interact with that context.[26] We also commend the EPA for setting out sections on climate science and national frameworks, and climate change in the national and Western Australian context.[27] However, it is essential for the Revised Guideline to include, at a minimum:

a. the IPCC's conclusion that the world is on track to exceed 1.5°C and even 2°C of warming without deep reductions in emissions in the coming decades;[28] and

Recommendations – Report 1686: Pilbara Energy Generation Power Station (January 2021), available: https://www.appealsconvenor.wa.gov.au/oac/files/042-20%20Appeals%20Convenor%20Report(1).PDF.

[24] EP Act s 44(2)(b).

[25] Draft Revised Guideline, p 5.

[26] Draft Revised Guideline, pp 1-2.

[27] Draft Revised Guideline, pp 2-3.

[28] IPCC, "Special Report on Global Warming of 1.5°C: Summary for Policymakers" (2018), p 15.

b. that the 2021 Glasgow Climate Pact agreed that "limiting global warming to 1.5°C requires rapid, deep and sustained reductions in global greenhouse gas emissions, including reducing global carbon dioxide emissions by 45 per cent by 2030 relative to the 2010 level and to net zero around mid-century, as well as deep reductions in other greenhouse gases."[29]

Below we set out suggestions for improving the Guideline to ensure that the EPA meets its obligations under the EP Act.

A. The Paris Agreement

The Draft Revised Guideline includes a section on climate science.[30] That section refers to the UN Framework Convention on Climate Change (**UNFCCC**) and the Paris Agreement, which are of central importance as international climate science resources.

The Draft Revised Guideline refers to the temperature goals in Art 2 of the Paris Agreement. Rather than being paraphrased, we recommend that the text be quoted, for accuracy. The Paris Agreement aims to strengthen the global response to climate change including by:

> *Holding the increase in the global average temperature to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change*[.][31]

The Paris Agreement also includes in Art 4 an aim of reaching global peaking of greenhouse gas emissions as soon as possible.

In this regard, and as further discussed below in relation to the most up-to-date scientific resources on climate impacts, carbon budgets and warming scenarios, it is no longer appropriate for the EPA to rely on an objective of net zero by 2050.[32] The Guideline should reflect the more recent evidence (outlined below) that emissions reductions necessary for a 1.5°C warming scenario are significantly greater, and a linear trajectory reduction from current emissions levels, let alone 2030 emissions levels, to net zero in 2050 is not sufficient to meet the warming target of 1.5°C.

At a minimum, recognising that this science continues to develop and that the EPA will assess proposals on a case-by-case basis, the Guideline should specifically recognise the central relevance of carbon budgets for the 1.5°C warming scenario (which change from time to time as emissions trajectories may change) as the bar against which proposals will be assessed.

B. Most recent scientific resources

The Draft Revised Guideline specifically refers to the IPCC's "Special Report: Global Warming of 1.5°C", published in March 2018 (**1.5°C Report**). This report provides an overview of the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission

[29] United Nations Framework Convention on Climate Change, 'Glasgow Climate Pact, Decision -/CP.26, advance unedited version' (26 November 2021), art 22, available: https://unfccc.int/documents/310475
[30] Draft Revised Guideline pp 2-3.
[31] Paris Agreement art 2.1(a).
[32] Draft Revised Guideline, p 2.

pathways. While the report contains important findings and is appropriate for the EPA to refer to, it was published more than four years ago and is not the most up-to-date scientific resource available, even as prepared by the IPCC. Since the 1.5°C Report was published:

a. the IPCC has expressed greater levels of confidence in predicted impacts of climate change;

b. predicted impacts have increased in severity; and

c. due to higher-than-expected greenhouse gas emissions since 2018, the emissions reduction pathways set out in the 1.5°C Report as being required to limit warming to 1.5C would no longer achieve that goal.

As an expert body, the EPA must have regard to the best available scientific evidence when exercising its functions under the EP Act. Below is an overview of key scientific resources which contain important up-to-date findings on climate science and carbon budgets, and to which the EPA should have regard, and refer to in the Revised Guideline:

a. The reports from the IPCC's sixth assessment cycle, including "Climate Change 2022: Impacts, Adaptation and Vulnerability" (February 2022) and "Climate Change 2022: Mitigation of Climate Change" (April 2022), which provide the most up-to-date synthesis of scientific understanding on climate change.

b. The IPCC is due to soon (late 2022 or early 2023) publish the Synthesis Report for its sixth assessment cycle, which will integrate the content of the working groups' above reports. Should the Synthesis Report be published before the Draft Revised Guideline is finalised, EPA should refer also to this report.

c. The International Energy Agency's report "Net Zero by 2050 A Roadmap for the Global Energy Sector" (May 2021), which concluded that in order to meet the goals of the Paris Agreement:

   i. methane gas use must be reduced by 55% from 2021 levels;[33]

   ii. from 2021, no new methane gas fields are approved;[34] and

   iii. emissions from existing methane gas supply chains must also be substantially reduced through emissions reduction measures and elimination of all avoidable methane emissions by 2030.[35]

d. The UN Environment Programme's 2021 Emissions Gap Report, which found that the latest unconditional Paris Agreement emissions reduction commitments and

[33] International Energy Agency, *Net Zero by 2050: A Roadmap for the Global Energy Sector – Summary for Policymakers* (May 2021), p 11, available: https://iea.blob.core.windows.net/assets/7ebafc81-74ed-412b-9c60-5cc32c8396e4/NetZeroby2050-ARoadmapfortheGlobalEnergySector-SummaryforPolicyMakers_CORR.pdf

[34] Ibid.

[35] International Energy Agency, *Net Zero by 2050: A Roadmap for the Global Energy Sector* (May 2021), p 104, available: https://iea.blob.core.windows.net/assets/4719e321-6d3d-41a2-bd6b-461ad2f850a8/NetZeroby2050-ARoadmapfortheGlobalEnergySector.pdf

announced pledges are insufficient and would result in warming of about 2.7 degrees (66% chance, range 2.2-3.2 degrees).[36]

The EPA should also have regard to influential legal precedent relevant to climate action. In *Sharma v Minister for the Environment* [2021] FCA 560 (***Sharma***), the Court relevantly made the following findings (which were not disturbed on appeal in *Minister for the Environment v Sharma* [2022] FCFCA 35):

a. if the global average surface temperature increases beyond 2°C, there is a risk, moving from very small (at about 2°C) to very substantial (at about 3°C), that Earth's natural systems will propel global surface temperatures into an irreversible 4°C trajectory, resulting in global average surface temperature reaching about 4°C above the pre-industrial level by about 2100.[37] That is, given the gravity of our current circumstances and the potentially catastrophic outcomes, the scale at which emissions reductions (or increases) are material is much lower.

b. The risk of harm from climatic hazards brought about by increased global average surface temperatures is on a continuum in which both the degree of risk and magnitude of the potential harm will increase exponentially if the Earth moves beyond a global average surface temperature of 2°C, towards 3°C and then to 4°C above the pre-industrial level.[38]

c. Exceeding the carbon budget for 2°C or even 1.5°C will lead to severe, irreversible and potentially cascading climate change harm.[39]

In *Bushfire Survivors for Climate Action v Environment Protection Authority* [2021] NSWLEC 92, in which the Court ordered the NSW EPA to develop environmental quality objectives, guidelines and policies to ensure environment protection from climate change, the court referred approvingly to evidence that:

a. The State's emissions trajectory was incompatible with holding global warming to 1.5°C;[40]

b. The State was outside its population share of the 1.5°C carbon budget;[41] and

c. The State was a major contributor to the production gap, being the discrepancy between planned fossil fuel production and global production levels consistent with limiting warming to 1.5°C.[42]

While it may not be practicable to include all of this material within the Draft Revised Guideline, the EPA must ensure that the Revised Guideline is finalised in light of the content of these reports and cases. The EPA must also ensure that, as climate science develops, new relevant reports are

[36] UN Environment Programme, *Emissions Gas Report 2021* (26 October 2021), p 36 (as numbered), available: https://wedocs.unep.org/bitstream/handle/20.500.11822/36990/EGR21.pdf
[37] *Sharma*, [74].
[38] Ibid, [75].
[39] Ibid, [88].
[40] *Bushfire Survivors for Climate Action v Environment Protection Authority* [2021] NSWLEC 92 [87].
[41] Ibid, [88].
[42] Ibid, [89].

published, and new relevant cases decided, that it continues to consider the most up-to-date scientific and legal resources when it applies the Revised Guideline to each proposal. The Revised Guideline should also expressly state that the EPA expects proponents to rely on the best available science when providing information about their proposal and undertaking environmental assessments.

C. References to linear reduction trajectories in isolation are not scientifically supported

It is important to recognise the scientific consensus on the urgent and immediate need for emissions reduction (and the increasing unacceptability of emissions increases), which we understand to be the EPA's intention for the Draft Revised Guideline.

However, there are parts of the Draft Revised Guideline that appear to contradict this science. For example:

a. The IPCC does not recommend a linear reduction in greenhouse gas emissions from 2030 (nor does any other climate change expert or body of experts). Reductions from current levels of emissions must begin immediately, and the introduction of any new sources of emissions would require even more rapid reductions in existing sources.[43]

b. In 2019, for instance, the UN Environment Programme's 2019 Production Gap Report recommended an emissions reduction rate of 7.6% p.a. to achieve the Paris Agreement target of 1.5ₒC.[44] However, a 15.5% per year emissions reduction rate was recommended if no action was taken before 2025.[45]

c. The Draft Revised Guideline does not acknowledge that the "net zero by 2050" concept is an expression of a carbon budget rather than a deadline for action. Referring to net zero by 2050 without linking this goal to a carbon budget is not evidence-based because the expression alone does not reflect that what matters to achieving the temperature targets in the Paris Agreement is the total amount of greenhouse gas emitted in the years until 2050. As set out in the IPCC's 1.5°C Report, limiting warming in line with the goals of the Paris Agreement depends on staying within a carbon budget.[46] From a starting point of emissions levels at the time that the 1.5°C Report was published, most modelled pathways showed net zero reached around 2050.[47] If emissions levels increase from those starting levels, the remaining carbon budget shrinks, and the point at which net zero must be reached is brought forward.[48]

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[43] See, e.g. IPCC, 1.5°C Report: Mitigation Pathways Compatible with 1.5°C in the Context of Sustainable Development.

[44] UN Environment Programme, Emissions Gap Report (2019), p 20, available: https://www.unep.org/resources/emissions-gap-report-2019

[45] Ibid, 12.

[46] IPCC, 1.5°C Report: Summary for Policymakers, pp 12-17.

[47] IPCC, 1.5°C Report, Summary for Policymakers, pp 13-14.

[48] Or required to be made net negative earlier or to a greater degree, which in turn relies on unproven technology such as carbon capture and storage.

d. The current advice of Australian scientists calls for an emissions reduction of 74% below 2005 levels by 2030 and reaching net-zero emissions by 2035 to limit global warming to 1.5°C.[49]

e. The Climate Council has likewise found that net zero emissions must be reached by 2035 in order to stay within a carbon budget consistent with the Paris Agreement goals.[50]

While we understand that the EPA's intention is to set out minimum expectations for proponents, some of this information has the potential to misrepresent the bar against which proposals will be assessed, as well as what the science clearly indicates is required to meet the objectives of avoiding environmental harm. In order to clarify its expectations, the EPA should:

a. replace references in the Draft Revised Guideline to a straight-line reduction trajectory from 2030 with statements that emissions reduction targets should be consistent with the EPA's aim of limiting warming to 1.5°C; and

b. where the EPA considers it necessary to stipulate particular years or trajectories, it should use the Climate Council's finding that, to limit warming to 1.5°C, emissions would need to reach net zero by 2035 (and, obviously, cannot increase even in the short term).

D. EPA should require proponents to use an up-to-date global warming potential for methane

Because different greenhouse gases absorb heat differently and remain in the atmosphere for different periods of time, a gas's "global warming potential" (**GWP**), is used to indicate the relative climate-forcing effect of non-carbon dioxide greenhouse gases as compared to carbon dioxide. Methane, the second most important greenhouse gas in the atmosphere, has a GWP of many multiples of carbon dioxide because, per tonne, it causes much more warming than carbon dioxide. However, that GWP changes over time, reflecting how methane in the atmosphere breaks down over time.

According to the IPCC's Sixth Assessment Report methane's GWP is 27 over a 100-year time frame, but 79.7 over a 20-year timeframe.[51] In other words, 20 years from the date of emission, one tonne of methane has the same warming impact as 79.7 tonnes of CO_2 meaning that methane is 79.7 times stronger in trapping heat than CO_2 over a 20-year period.

However, in EDO's experience, when calculating greenhouse gas emissions from proposals, proponents frequently rely on an outdated GWP for methane, and rely exclusively on a 100-year

[49] Hewson, J., Steffen, W., Hughes, L., and Meinshausen, M., *Australia's Paris Agreement Pathways: Updating the Climate Change Authority's 2014 Emissions Reduction Targets* (January 2021), available: https://www.climatecollege.unimelb.edu.au/files/site1/docs/%5Bmi7%3Ami7uid%5D/ClimateTargetsPanelReport.pdf

[50] Climate Council, *Aim High, Go Fast: Emissions Need to Plummet this Decade* (2021), available: https://www.climatecouncil.org.au/wp-content/uploads/2021/04/aim-high-go-fast-why-emissions-must-plummet-climate-council-report-210421.pdf

[51] IPCC, Sixth Assessment Report, Ch 7: The Earth's Energy Budget, Climate Feedbacks and Climate Sensitivity (2021), p 1017, Table 7.15, available: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Chapter07.pdf

time horizon, which obscures the true environmental harm from methane emissions caused by a proposal.

Accurate representation of methane's warming influence is critical because the climate system responds more quickly to methane, with its shorter residence time in the atmosphere, than to CO_2. This means that aggressive mitigation of methane emissions is essential if the near-term pace of climate change is to be slowed. A slowdown is critical to decrease the likelihood of reaching climatic tipping points and to moderate the intensification of current climate impacts.

Accordingly, we recommend that the Draft Revised Guideline be amended to make clear that proponents must provide estimates of methane using both 20- and 100-year timeframes, and using an up-to-date GWP for methane.

VI. "Scope 3" emissions should not be treated differently to other emissions

A. The EPA should acknowledge the significance of "scope 3" emissions

The EPA is aware that the concept of greenhouse gas emissions "scopes" are used an accounting tool and are not relevant to the environmental impact of the emissions. There is no scientific basis for making a distinction between the different "scopes" of greenhouse emissions in the context of environmental impact assessment and achieving the EPA's stated environmental objective. Greenhouse gas emissions have the same risk of harm, and require the same level of mitigation, regardless of where they are emitted.

The Draft Revised Guideline makes reference to Australia's greenhouse gas emissions and to WA's greenhouse gas emissions, and the fact that WA's emissions have risen since 2005. However, these figures reflect "scope 1" and "scope 2" emissions only.

As the Draft Revised Guideline acknowledges, the increase in WA's scope 1 and 2 greenhouse gas emissions is "due to strong growth in mining and exports of fossil fuels".[52] However, the Draft Revised Guideline fails to recognise that mining and fossil fuel export projects based in WA are driving even greater increases in global greenhouse gas concentrations due to their "scope 3" emissions. These emissions are a result of proposals in WA which are assessed by the EPA and subject to the requirements of the EP Act, and therefore should be acknowledged by the EPA in the context of the risk of environmental harm associated with climate change from greenhouse gas emissions from proposals referred under Part IV of the EP Act.

B. "Scope 3" emissions should be subject to the same standards of mitigation

The Draft Revised Guideline treats "scope 3" greenhouse gas emissions differently to "scope 1" and "scope 2" emissions, by stipulating different, less rigorous standards of expected mitigation. The "considerations for EIA" set out in the Draft Revised Guideline include "the adoption of best practice design, technology and management appropriate to mitigate scope 1 emissions," whether reasonable practicable "alternatives and measures to avoid, reduce or offset emissions" scope 2 emissions have been considered, but only whether "*reasonably practicable* measures have been *considered* for scope 3 emissions" (emphasis added).[53] In the context of the Greenhouse Gas Management Plan, the Draft Revised Guideline would require proponents to outline "strategies that

[52] Draft Revised Guideline, p 3.
[53] Draft Revised Guideline, p 5.

demonstrate how best practice measures… have been adopted to avoid or reduce a proposal's scope 1 emissions", and "strategies that demonstrate reasonably practicable measures and alternatives have been considered to reduce scope 2 emissions," but only that "*consideration* has been given to reducing scope 3 emissions, *where practicable*" (emphasis added).[54]

Because emissions from all "scopes" pose the same risk, and have the same effect on the WA environment, they should be subject to the same standard of mitigation. The Draft Revised Guideline should be amended to require demonstration of best practice measures to avoid or reduce all emissions. For "scope 3" emissions, these may include measures such as inclusion of particular terms in sales contracts that can be used to address greenhouse gas emissions that do not occur at the proponent's premises.

Ultimately, if a proponent is not able to demonstrate an acceptable reduction in "scope 3" emissions then the EPA must recommend that the proposal not be implemented.

VII. The threshold at which greenhouse gas emissions will be considered is not justified and is out of step with other jurisdiction

'[A]ll GHG emissions contribute to climate change'.[55] Accordingly, '[a]ll emissions are important because cumulatively they constitute the global total of greenhouse gas emissions, which are destabilising the global climate system at a rapid rate. Just as many emitters are contributing to the problem, so many emission reduction activities are required to solve the problem.'[56]

It is for this reason we commend the EPA for requiring proponents to provide 'credible estimates of scope 1, scope 2 and scope 3 greenhouse gas emissions (annual and total)'.[57] This information is necessary for the EPA to consider the impact of a proposal's greenhouse gas emissions on the WA environment.

However, the Draft Revised Guideline states that greenhouse gas emissions from a proposal will be considered where they are reasonably likely to exceed 100,000 tonnes of CO_2-e scope 1 or 2 emissions. There is no explanation provided in the Draft Revised Guideline for why this number has any significance from an environmental perspective. Given, as set out above, every tonne of greenhouse gas emissions contributes to climate change, it seems absurd that the effect of the Draft Revised Guideline could be to exclude assessment of a proposal with 99,999 tonnes per annum of greenhouse gas emissions. Indeed, the annual basis for the figure is also not explained. It would also be an absurd outcome for the threshold to include a proposal operating for two years at 100,000 tonnes CO2-e per year but exclude a proposal operating for 50 years at 50,000 tonnes CO2-e per year (a total of 2.5 million tonnes CO2-e). Further, the failure to take scope 3 emissions into account is unsupportable, given all greenhouse gas emissions from a proposal will impact WA's environment.

Additionally, assessing and controlling greenhouse gas emissions only from proposals that exceed a certain numerical threshold is inconsistent with scientifically credible pathways to meeting the Paris Agreement targets, and even the EPA's 'view' that WA should achieve net zero emissions no

[54] Draft Revised Guideline, p 7.
[55] *Gloucester Resources v Minister for Planning* [2019] NSWLEC 7 [514]. See also IPCC, "Climate Change 2021: The Physical Science Basis: Summary for Policymakers" (October 2021), p 28 (as numbered), available: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM_final.pdf.
[56] Ibid, [515], quoting with approval expert report of climate scientist Professor Will Steffen.
[57] Draft Revised Guideline, p 6.

later than 2050.[58] If the State is to achieve that goal, new proposals cannot be implemented without controls on anticipated greenhouse gas emissions. It is incongruent that the agency responsible for reducing harm to the environment is proposing to adopt a policy that may undermine a state-wide policy goal to protect WA's environment and communities.

A more appropriate approach would be to consider greenhouse gas emissions from any proposal that EPA decides should be assessed. The EPA should then consider whether the total emissions of the proposal are acceptable or not acceptable, by reference to the environmental objectives outlined above. If the EPA considers the proposal can be made environmentally acceptable, it would then recommend conditions to prevent, abate, control or mitigate greenhouse gas emissions with appropriate proportionate flexibility depending on the anticipated volume of greenhouse gases and availability of avoidance options and mitigation mechanisms. This would be preferable to the EPA declining to even consider greenhouse gas emissions from a proposal EPA is assessing in any event, where those emissions fall below a certain threshold.

A numerical significance threshold should be applied *only* where greenhouse gas emissions from a proposal are the sole reason for its referral.

Even if a numerical threshold is applied to decide when greenhouse gas emissions will be considered significant, the threshold proposed by the Draft Revised Guideline is not evidence-based; and is not consistent with the EPA's obligations under the EP Act.

A. "Scope 3" emissions must be included in any numerical threshold

First, there is no science-based, legal or practical policy reason to refuse to take "scope 3" emissions into account when determining whether any numerical threshold is met. Because greenhouse gases are a global pollutant, the circumstances under which a proposal's emissions occur do not change the risk of harm or impact to the environment. If a proposal will result in "scope 3" emissions, it is likely to have a significant effect on the environment,[59] and therefore fall within the purview of Part IV of the EP Act. For this reason, we commend the EPA for requiring proponents to provide credible estimates of "scope 3" emissions.[60]

However, the Draft Revised Guideline states that the EPA will only consider "scope 1" and "scope 2" emissions in deciding whether the threshold is met. This is inconsistent with the global nature of greenhouse gas emissions. It is also internally inconsistent with the Draft Revised Guideline, which requires proponents to disclose and "consider" reducing "scope 3" emissions.[61] It is also inconsistent with EPA's stated objective in the Draft Revised Guideline.

It is unclear why the Draft Revised Guideline excludes scope 3 emissions from the threshold at which greenhouse gas emissions will be assessed by the EPA. We note the lack of explanation in the Draft Revised Guideline for excluding "scope 3" emissions, the absence of scientific justification for excluding "scope 3" emissions, and that nothing in the EP Act supports an arbitrary distinction between the location and point in time at which the environmental effects of a proposal may occur.

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[58] Draft Revised Guideline, p 2. We emphasise that, for reasons set out above in Part V.C of these submissions, EPA's expression of an emissions reduction target of "net zero by 2050" is not consistent with science.
[59] EP Act s 38.
[60] Draft Revised Guideline, p 6.
[61] Though requiring mere "consideration" of "scope 3" emissions is also inadequate. See above at part VI.

There is also internal inconsistency in the Draft Revised Guideline making reference to potential mitigation measures for "scope 3" greenhouse gas emissions but not taking them into account when determining whether the threshold has been met.

Accordingly, any numerical threshold should take into account total "scope" 1, 2 and 3 emissions from a proposal.

B. All cumulative emissions must be considered in deciding whether any threshold is met

The plain language interpretation of the threshold in the Draft Revised Guideline is that "scope 1" and "scope 2" emissions will be considered separately and independently, not cumulatively, when deciding whether the threshold is met. For the same reasons that "scope 3" emissions must be considered in any numerical threshold, the threshold must also consider total cumulative emissions from all scopes, over the lifetime of the project. There is no basis in science or the EP Act for applying the threshold separately to each scope of emissions.

We note that:

a. greenhouse gases can persist in the atmosphere for thousands of years,[62]

b. scientifically credible pathways to meeting the Paris Agreement temperature targets require rapid and deep reductions in emission of greenhouse gases, generally reaching net zero by no later than 2050, but more recently by 2035; and

c. the anticipated lifetimes for proposals considered by the EPA can often be many years or decades long.

Therefore, there is no reason for the EPA to only consider greenhouse gas emissions from a proposal where they reach a certain threshold *annually*, rather than over the life of the proposal. The EPA's statutory objective and the objective in the Draft Revised Guideline is not supported by separating out emissions by scope for the purpose of considering a threshold.

C. A threshold of 100,000 tCO_2-e is an outlier in the context of national and international significance thresholds

The Draft Revised Guideline proposes a threshold of 100,000 tCO_2-e. It is unclear from the Draft Revised Guideline how this threshold was decided. Given that under the *National Greenhouse and Energy Reporting Act 2007 Act* (Cth), facilities must report their emissions if they emit more than 25,000 tCO2-e per year, it seems incongruous that proposals that will be preparing to calculate and report their emissions in the Commonwealth regime will may fall far below the EPA's threshold for considering the risk and harm of those emissions.

As described above, a numerical threshold is not the only way to determine the circumstances when greenhouse gas emissions should be considered. Where the EPA considers it appropriate to apply a numerical threshold, it should consider the thresholds set in other jurisdictions.

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[62] Average lifetime in the atmosphere for greenhouse gases is as follows: carbon dioxide—several years to several thousand years; methane—11.8 years; nitrous oxide—109 years; fluorinated gases—a few weeks to thousands of years. See, US EPA, *Climate Change Indicators: Greenhouse Gases*, (Web Page, 1 August 2022) <epa.gov/climate-indicators/greenhouse-gases>

In 2014, the United States proposed a threshold of 25,000 tCO2-e for consideration of greenhouse gas emissions under federal environmental assessment laws. The threshold approach was ultimately abandoned in the final guidance, which "does not establish any particular quantity of greenhouse gas emissions as 'significantly' affecting the quality of the human environment,"[63] with the implication that projects with emissions below the draft proposed threshold may nonetheless need to prepare an environmental impact statement.

In California, the Bay Area Air Quality Management District and the Santa Barbara Air Pollution Control District, which set greenhouse gas significance thresholds for stationary sources[64] across large areas of the state, have both set significance thresholds of 10,000 tCO2-e per year.[65] These thresholds take into account emissions from all scopes. The County of San Diego applies a significance threshold of 2,500 tCO2-e per year, from all scopes.[66]

More locally, the Australian Capital Territory has a legislated requirement that an environmental impact statement be prepared for any development where the annual expected greenhouse gas emissions from operating the development exceed 1,000 tCO2-e per year,[67] and a greenhouse gas emissions statement to be prepared for any development the emissions of which are expected to exceed a mere 250 tCO2-e per year.[68]

It is clear that in the national and international context, the numerical threshold proposed in the Draft Revised Guideline is far too high. If it is to apply a numerical threshold, the EPA should set it no higher than 10,000 tCO2-e per year from all scopes or 100,000 tCO2-e over the life of the proposal.

VIII. Offsets are not a reliable or effective mechanism for mitigating emissions

EDO is concerned that the Draft Revised Guideline appears to anticipate, and even encourage, heavy reliance by proponents on offsets. This includes a requirement that greenhouse gas management plans outline 'implementation of a greenhouse gas emissions offset package to offset residual emissions for emission sources that cannot be avoided or reduced to achieve proposed targets.'[69] There are a number of issues with this approach.

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[63] US Council on Environmental Quality, *Final Guidance for Federal Departments and Agencies on Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in National Environmental Policy Act Reviews* (Aug. 1, 2016). This guidance was withdrawn by the Trump administration, and new guidance is currently under development by the Biden administration.

[64] That is, a source of pollution with a fixed location, such as a facility or industrial development; as opposed to mobile sources like vehicles.

[65] Bay Area Air Quality Management District, *California Environmental Quality Act Air Quality Guidelines* (May 2017), p 2-4, available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en; Santa Barbara Air Pollution Control District, *Land Use Frequently Asked Questions* (Web Page, last visited 14 September 2022) < https://www.ourair.org/apcd/land-use-frequently-asked-questions/>

[66] County of San Diego, Guidelines for Determining Significance and Report Format and Content Requirements: Climate Change (November 7, 2013), p 28, available: https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/Soitec-Documents/Final-EIR-Files/references/rtcref/ch3.1.3/2014-12-19_CountyofSD2013.pdf

[67] *Planning and Development Act 2007* (ACT), s 139(2)(u) and Sch 4, Pt 4.3, Item 9 read with *Planning and Development Regulation 2008* (ACT) reg 19A.

[68] *Planning and Development Regulation 2008* (ACT) reg 25AA.

[69] Draft Revised Guideline, p 7.

First, as the EPA correctly recognises, offsets are the 'last resort' in the mitigation hierarchy.[70] Where emissions cannot be adequately avoided through application of other technology, proper application of mitigation hierarchy requires that the EPA acknowledge that emissions could be avoided by not implementing the proposal. Accordingly, where greenhouse gas emissions cannot be mitigated except through reliance on offsets, the EPA should recommend that the proposal not be implemented.

Second, offsets are notorious for their lack of integrity. Substantial research has revealed that a large majority of Australian Carbon Credit Units (**ACCUs**) are funding Energy Reduction Fund projects which deliver neither real (do not create sinks that offset emissions) or additional (emissions would have been prevented anyway) reductions in emissions.

For example, recent research found that ACCUs generated by "avoided deforestation" projects are largely non-additional.[71] Avoided deforestation projects make up about 20% of issued ACCUs. Research from the Australian National University has reached the same conclusion about other popular ACCU credited projects, such as those based on human regeneration, landfill gas and plantation forestry.[72]

In March 2022, Professor Andrew Macintosh, the former head of the Commonwealth government's Emissions Reduction Assurance Committee, called the ACCU market "largely a sham",[73] stating that 70-80% of ACCUs are not real or additional. In a paper published by the ANU on the "human-induced regeneration" method of carbon crediting, Professor Macintosh stated that an investigation needs to be conducted into the CER, ERAC and Department of Industry, Science, Energy and Resources, alleging that:

> All three organisations have ignored and sought to suppress a material integrity issue associated with the ERF's most popular method in circumstances where they knew, or should have known, that it was distorting the ACCU market.[74]

As such, the ACCU market is not sufficiently mature to be relied upon by EPA as a reliable mechanism for proponents to mitigate greenhouse gas emissions.

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[70] Draft Revised Guideline, p 9.

[71] Australian Conservation Foundation & Australia Institute, *Questionable Integrity: Non-Additionality in the Emissions Reduction Fund's Avoided Deforestation Method* (September 2021), available: https://australiainstitute.org.au/wp-content/uploads/2021/09/ACF-Aust-Institute_integrity-avoided_deforestation_report_FINAL_WEB.pdf

[72] Andrew Macintosh, Don Butler, Dean Ansell and Marie Waschka, *Integrity Problems with the ERF's 2022 Plantation Forestry Method* (August 2022), available: https://law.anu.edu.au/sites/all/files/short_-_integrity_problems_with_the_plantations_method_120822_final.pdf>

[73] Adam Morton, 'Australia's carbon credit scheme "largely a sham", says whistle-blower who tried to rein it in', *The Guardian*, 23 March 2022, <https://www.theguardian.com/environment/2022/mar/23/australias-carbon-credit-scheme-largely-a-sham-says-whistleblower-who-tried-to-rein-it-in>

[74] Andrew Macintosh, Don Butler and Dean Ansell, "Measurement Error in the Emissions Reduction Fund's Human-induced Regeneration (HIR) Method (Australian National University, 14 March 2022), p.4. See also, Andrew Macintosh, "The Emission Reduction Fund's Landfill Gas Method: An Assessment of its Integrity" (Australian National University, 16 March 2022).

Indeed, the reliability of ACCUs is of such concern that there is currently a review underway with a view to strengthening the integrity of ACCUs.[75] While EDO welcomes the initiative of the Chubb Review into ACCUs, we consider it unlikely that the integrity issues with the ACCU market emerging from the review will be resolved at the rate that would allow for their meaningful contribution to Australia's abatement task. Accordingly, the EPA cannot reasonably rely on the purchase of ACCUs as an adequate method of mitigating emissions and meeting the objective for this environmental factor.

Third, it is important to recognise that carbon offsetting in general is very rarely equivalent to real emissions reduction. A recent expert report prepared for the Stockholm Environment Institute[76] summarises some of the fundamental problems with offsets. These include:

a. inherent uncertainties in the quantification of carbon offsets mean that they do not necessarily (and are unlikely to) counterbalance fossil fuel emissions on a tonne-for-tonne basis;

b. carbon offsets also predominately derive from natural carbon storage, which has a problem of permanence. There are already existing examples of carbon crediting projects being destroyed by catastrophic fires. As climate change worsens and devastating bushfires and forest fires become increasingly common, the risk of destruction of carbon credit projects increases; and

c. as the global economy decarbonises, opportunities for additional mitigation that could compensate for remaining emissions will dwindle.

The IPCC's Sixth Assessment Report also refers to the issue of natural carbon storage becoming less effective over time due to saturation of land and ocean carbon sinks with cumulative emissions. The report says with high confidence that "this is projected to result in a higher proportion of emitted CO_2 remaining in the atmosphere."[77] As such, offsets will continue to be incapable of completely offsetting continued greenhouse gas emissions.

A. EPA should not accept international offsets as a mitigation measure

The Draft Revised Guideline appears to allow for the use of international offsets, requiring only that offsets meet unspecified 'integrity principles and be based on clear, enforceable and accountable methods.'[78]

As discussed above, Australian offsets suffer serious integrity and reliability issues, and are already subject to review by government. International offsets beyond Australia's regulatory control represent even greater risk. There is no justification for allowing international offsets to be used by a proponent. The EPA's priority should be on the higher levels of the mitigation hierarchy, thus

[75] Hon. Chris Bowen, *Independent Review of ACCUs* (Media Release, 1 July 2022), <https://minister.dcceew.gov.au/bowen/media-releases/independent-review-accus>

[76] Derik Broekhoff, Expert Report for Client Earth (4 July 2022), available: https://www.clientearth.org/media/exyfip2p/productie-4-broekhoff-expert-report-v2-2-final.pdf

[77] IPCC, Sixth Assessment Report: Climate Change 2021: The Physical Science Basis, p 20-8.4.1 (2021), available: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf

[78] Draft Revised Guideline, p 9.

requiring actual emissions reduction, and recommending against implementation of proposals where the risk of environmental harm is too great.

In summary, offset purchase cannot be treated as reducing the risk of environmental harm to an acceptable level when the EPA is considering whether to recommend that a proposal be implemented. The reliance on any offset scheme (let alone one with such significant integrity issues as the ACCU scheme) is subject to serious limitations and is no replacement for real emissions reduction.

IX. Greenhouse Gas Management Plan content requirements are insufficient

The Draft Revised Guideline focuses on a "Greenhouse Gas Management Plan" (**GHGMP**) as the central tool by which proponents will set out measures to address their proposal's greenhouse gas emissions.[79]

A. GHGMPs should be enforceable

While we recognise that a GHGMP may be useful in the context of changing circumstances and innovation, we are concerned that enforcement and compliance issues could be created by relying on this instrument.

It is preferable to include management measures such as clearly stated emissions reduction requirements within the conditions on a Ministerial Statement to ensure that they are enforceable. We note that the EPA has recommended such conditions when applying the previous Guideline,[80] and support the EPA continuing to do so. Including key measures in conditions, rather than only a management plan, enables compliance and enforcement where necessary as well as providing certainty for proponents. Where circumstances and science evolve, and changes to particular measures are required, the power in s 46 of the EP Act to amend implementation conditions can be exercised.

We support the use of a GHGMP to provide detail on particular strategies, technologies, control measures, operations and processes that proponents will apply to implementation of a proposal, and the regular revision of GHGMPs to keep up to date with available mitigation measures and scientific developments. The Draft Revised Guideline should be amended to clarify that key management measures, such as emissions reduction pathways, will be applied to proposals as conditions, in addition to being included in a GHGMP.

B. Publication of and reporting on GHGMP

Publication of management plans and periodic reporting is essential and we support the EPA's inclusion of these expectations within the Draft Revised Guideline.[81]

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[79] Draft Revised Guideline, p 7.

[80] See, eg, Recommended Condition 2-2 in EPA, Report 1727: North West Shelf Project Extension Proposal (June 2022), p 95, available: https://www.epa.wa.gov.au/sites/default/files/EPA_Report/EPA%20Report%201727%20-%20North%20West%20Shelf%20Extension%20Project%20-%20assessment%20report.pdf

[81] Draft Revised Guideline, p 8.

However, the Draft Revised Guideline refers to five-yearly reporting against GHGMPs. We are concerned that this would not allow for timely responses (including proponents rectifying any non-compliance) in the context of near to medium term emissions reduction targets.

It would be more effective and informative to require annual reporting in line with proponents' requirement to report on compliance with conditions. Given many proponents will be reporting their greenhouse gas emissions annually under federal legislation in any event, they should be required to provide annual summaries of progress against their approved GHGMP. The Draft Revised Guideline refers to five-yearly reporting as "ideal", so to ensure this is not understood as a maximum expectation the Draft Revised Guideline should be amended to state that reporting may be aligned with Paris Agreement milestones or a period the EPA considers appropriate for the proposal

The current wording of the Draft Revised Guideline as to publication of a summary of an approved GHGMP[82] should also be amended to clarify that this would be additional to publication of the full GHGMP.

C. Content of GHGMP

The Draft Revised Guideline sets out matters which the EPA expects to be outlined in the GHGMP. The focus on transparency and demonstration of detail is to be commended, and appropriately reflects the role and purpose of a management plan in the regulatory scheme.

However, there are some aspects of the GHGMP requirements that have the potential to conflict with the EPA's statutory objectives and the objective in the Draft Revised Guideline. We suggest the following amendments:

a. As set out above in part V.C, emissions reductions on a linear trajectory from 2030 to 2050 is not consistent with achieving the goals of the Paris Agreement. The reference to a linear reduction trajectory should be removed from the Draft Revised Guideline.[83]

b. We commend the EPA on emphasising elsewhere in the Draft Revised Guideline the need for deep and substantial emissions reductions this decade and to achieve net zero emissions well before 2050. However, the requirement that a GHGMP "outline" that "consideration has been given to reducing "scope 3" emissions, where practicable," is inconsistent with that goal.

c. As also discussed above in Part VI, it is not clear why different standards have been specified for mitigation of different "scopes" of emissions. Reliance on categorisation of greenhouse gas emissions undertaken for purposes that are not relevant to the structure and purpose of the EP Act has the potential to lead the EPA into error in its consideration of a proposal's environmental impact. The Draft Revised Guideline should be amended to specify that the pathways for reducing a proposal's greenhouse gas emissions should be consistent with, or exceed, contemporary scientific evidence as to required emissions reductions.

d. As set out above, the terms "reasonably practicable" and "best practice" are ambiguous and have limited relevance to assessment of environmental impact and to whether a

[82] Draft Revised Guideline, p 8.
[83] Draft Revised Guideline, p 7.

proposal is environmentally acceptable. This section of the Draft Revised Guideline should be amended to instead refer to the objective for this environmental factor.

e. In line with the EPA's objective in s 15, it is difficult to see how excluding scope 3 emissions reduction measures could meet the "best endeavours" standard. Indeed, the Existing Guideline (released 16 April 2020) requires proponents to identify how scope 3 emissions will be reduced and offset (not merely estimated or considered). We do not understand the EPA to intend for the Draft Revised Guideline to indicate that the EPA might not consider this mandatory relevant consideration, nor that expectations have been lowered since the Existing Guideline was published. We therefore recommend that the Draft Revised Guideline be amended to clarify that all greenhouse gas emissions associated with a proposal will be assessed, and relevant conditions recommended or the proposal recommended not for implementation, in line with the impact of the proposal's emissions on the WA environment.

X. The Guidelines should be made enforceable

As proposed, the Draft Revised Guideline, when finalised, will have no legal force. Ensuring enforceability of the Guideline as a minimum standard for assessment and control of greenhouse gas emissions in Part IV assessments will:

a. provide greater certainty for communities, industries and ecosystems;

b. ensure built and natural assets are not left exposed; and

c. enable WA to maximise and benefit from energy transition opportunities, and ensure that that the transition is a just one protective of workers and communities.

Accordingly, the EPA should delineate as a programme under an environmental protection policy those parts of the Revised Draft Guidelines concerning requirements for the protection, control and abatement of greenhouse gas emissions to protect the whole of the State.[84] Further, the EPA should exercise its power under s 122 to draw up as administrative procedures those parts of the Draft Revised Guideline that relate to the principles and practices of environmental impact assessment or incorporate them into the EPA's existing administrative procedures.

XI. Minister should promptly commence section 46 inquiries to impose or strengthen greenhouse gas emission conditions on existing projects

There is a need for immediate action to reduce greenhouse gas emissions in order to achieve the goals of the Paris Agreement and avoid catastrophic impacts on the WA environment.

We commend the EPA for acknowledging this urgency and the need for action across government in the Draft Revised Guideline, which states:

> *The EPA encourages other decision-makers under the EP Act (including s.45C and s.46) and other legislation, to also have regard for the guideline.*

[84] EP Act s 31.

The EPA also encourages the objectives and content of this guideline be considered as soon as practicable for all proposals with ongoing GHG emissions in excess of the above amounts.

In light of the overarching object and principles in s 4A of the EP Act, it is appropriate for other decision-makers such as the Minister and the CEO of the Department of Water and Environmental Regulation to consider the Guideline in exercising functions under the EP Act.

Given the urgency of emissions reduction, and the EPA's "best endeavours" objective in s 15 of the EP Act, the EPA should consider and apply the Revised Guideline as soon as practicable. In this regard, we encourage the EPA to utilise its full suite of functions in s 16 to address greenhouse gas emissions and climate impacts.

Additionally, we support the Minister initiating inquiries under s 46 into whether conditions on existing proposals with significant greenhouse gas emissions are sufficient. It may be appropriate to consider multiple proposals in a single inquiry, which could allow for a holistic assessment of greenhouse gas emissions associated with proposals in WA and options for reductions at a sector- or State-wide level.