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To: The Department of Industry, Science and Resources

Re: Submission on the Future Gas Strategy: draft offshore guidelines consultation

Thank you for the opportunity to provide input on the draft offshore guidelines.

IEEFA is an independent energy finance think tank that examines issues related to energy markets, trends and policies. The Institute's mission is to accelerate the transition to a diverse, sustainable, and profitable energy economy.

The offshore guidelines play an important role in implementing Australia's environmental regulations with respect to offshore petroleum developments. However, the guidelines are also likely to affect other industries, namely fisheries and tourism, given the potential impacts of offshore petroleum developments on fish stocks and coastal amenity.

Oil and gas production is also a significant contributor to methane emissions, which in turn comprise a sizeable share of Australia's greenhouse gas (GHG) emissions. This share is forecast to increase over the next 10 years. The guidelines should address how future oil and gas projects will be consistent with Australia's methane pledge and emission reduction targets.

Our submission mainly focuses on issues related to decommissioning offshore infrastructure, and methane venting and flaring.

Our comments are provided in the following pages. Please do not hesitate to contact us to discuss any of the matters raised in this submission.

Kind regards,

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Draft guidelines

Exploration work-bid guidelines

The exploration work-bid permits guidelines are broadly reasonable and likely to screen parties that are not suitable or well placed to undertake exploration activities in most instances. However, there is scope to further tighten the guidelines with respect to past performance issues.

Under the current guidelines, a titleholder will be recorded as having a past performance issue for a period of only three years where an offshore permit has expired in default of the permit conditions. This is concerning given permit conditions are intended to protect environmental outcomes.

Further, where the default reflects incomplete or insufficient decommissioning of offshore infrastructure, there is likely to be a financial impact on taxpayers given the Australian government is the decommissioner of last resort. There may also be adverse impacts on fisheries given offshore infrastructure can damage commercial trawling equipment.

The material risk to taxpayers is large. Australia's total decommissioning costs, based on existing infrastructure, are estimated at $55 billion, with any new oil and gas infrastructure adding to this cost.[1] Ensuring titleholders have the financial and technical means to undertake decommissioning is vital for minimising the risks to taxpayers.

The guidelines also appear to limit recognition of past performance issues to those occurring with respect to offshore permits only, rather than permits issues by states and territories for onshore petroleum developments. However, poor past performance at onshore facilities should be considered as an indication of possible poor performance in offshore areas (given the greater complexity).

In IEEFA's view, it would be more prudent if the policy were amended to:

- Account for past performance issues in onshore developments in Australia.
- Record past performance issues permanently.
- Require titleholders with past performance issues to demonstrate that appropriate governance arrangements have been implemented to prevent repeated poor performance.

Declaration of location guidelines

IEEFA has no comments on these guidelines.

[1] IEEFA. Australia's decommissioning challenge raises financial risks for governments and shareholders. December 2023.

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Offshore petroleum retention lease guidelines

The same principle of tightening guidelines with the respect to past performances as stated in the exploration-work bid guidelines apply to the retention lease guidelines. The joint authority should impose several additional conditions on retention leases.

The retention lease guidelines also limit recognition of past performance issues to those occurring in offshore permits only, rather than permits issues by states and territories for onshore petroleum developments. Poor past performance at onshore facilities should be considered as an indication of possible poor performance in offshore areas, including with respect to retention leases.

The commerciality test, which includes project economics, and the internal rate of return (IRR) must include the cost of complying with Australia's Safeguard Mechanism and the associated costs of abatement (whether through carbon capture and storage (CCS) or carbon offsets). For instance, leases that include reservoirs with high levels of carbon dioxide, such as the Verus field in the Bonaparte Basin offshore Northern Territory, should demonstrate commercial viability under a range of assumptions relating either to CCS costs and performance, and carbon offset costs (or both as relevant).

Australia has signed the Global Methane pledge, and has set an emissions reduction target of 43% reduction by 2030 on 2005 levels.[2] Conditions of retention leases must be consistent with this pledge and reduction target (as discussed further below).

Venting and flaring from offshore petroleum facilities guidelines

Reducing methane emissions from petroleum production, processing, transport and use will be vital for Australia to meet its emissions reduction targets. IEEFA's analysis has found that Australia's emissions reduction targets are at risk due to unchecked methane emissions from coal and petroleum production.[3] IEEFA found that if "methane emissions remain approximately stable to 2035, they would represent 68-95% of the indicative targets emissions by 2035 for Australia".[4]

However, Australia's policy settings are not effectively driving methane abatement in the petroleum sector due to several factors, including:

- The Safeguard Mechanism not specifically requiring methane abatement.
- The use of lower-order methane emission estimation methods under the National Greenhouse and Energy Reporting Scheme (NGERS) may result in underreporting and thereby weaken incentives for abatement.
- Underreporting of methane emissions meaning petroleum facilities are either not captured by the Safeguard Mechanism or have inaccurate baseline and reported emissions estimates.
- Access to carbon offsets, which allow companies to meet their Safeguard Mechanism obligations without genuine emissions abatement (including methane

[2] The Conversation. Australia on track to meet 2030 43% emission's reduction target, on latest figures. 26 November 2024.
[3] IEEFA. Prioritising methane abatement makes economic sense. December 2024. Page 8.
[4] Ibid. Page 5.

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abatement).[5] This may be exacerbated when carbon offsets are low quality and do not translate to specific carbon abatement.

This is concerning given the majority of Australia's oil and gas methane emissions could be abated using existing technology. Specifically, Rystad Energy estimates that 90% of Australia's methane emissions from the oil and gas sector could be abated at zero net cost overall, with some interventions having a negative cost.[6]

Despite the strong financial case, Australia's oil and gas companies do not appear to be prioritising methane abatement. IEEFA analysed methane emissions and abatement activities for Woodside, Santos and APA Group, the two largest Australian gas producers and gas infrastructure provider, respectively. Our analysis found that Woodside and APA Group's methane emissions had increased since 2021 due to growth projects.[7] Santos's methane emissions fell over this period, but this likely reflects declining production at the offshore Bayu-Undan field.[8] Santos anticipates its production will increase materially in coming years.

The lack of abatement by oil and gas companies, despite the financial benefits, reflects that the benefits are relatively small compared with their revenue and profits, thereby weakening the financial incentives. Investment bank JP Morgan noted that, "Despite the positive economics of abatement in many instances, barriers to action may include a lack of awareness of the problem, low-quality emissions data, capability gaps, infrastructure constraints, and relative profitability compared to other uses of capital."[9]

Australia's regulatory systems need to adapt to address ongoing methane emissions, including those from venting and flaring at offshore facilities. In late 2024, IEEFA made a number of recommendations to governments:

- Scrutinise new oil and gas development approvals to ensure positive net benefits, and make approval conditional on comprehensive methane plans.
- Improve methane measurement by implementing higher-order methods that measure, rather than estimate, emissions and develop top-down methods for monitoring and verification.
- Require best-practice equipment and processes in the gas sector, including limiting the use of venting and flaring unless required for safety reasons.
- Enhance price signals to drive abatement by amending the Safeguard Mechanism, facilitating access to carbon credits for abatement projects, considering additional financial penalties (such as a methane tax) and providing additional financial support to first movers.

With respect to the guidelines for offshore venting and flaring, IEEFA again recommends that the guidelines be strengthened to prohibit the use of venting except for safety reasons. In practice, this will require the upgrading of emission-intensive equipment

[5] IEEFA. Prioritising methane abatement makes economic sense. December 2024. Page 33.
[6] Ibid. Page 28.
[7] IEEFA. Methane: A ticking time bomb for Australian investors. March 2025. Pages 19, 22 and 23.
[8] Ibid. Page 22.
[9] JP Morgan. The Methane Emissions Opportunity. November 2023. Page 7.

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(such as pumps and seals) with low-loss or low-bleed alternatives (including electric equipment).

Methane leaks can also occur through flaring, whereby incomplete combustion results in methane emissions. Minimum standards for flaring equipment may help to minimise the risks of incomplete combustion.

While such measures will minimise the risks of methane emissions, they will not eliminate the risks of unintended leaks arising from equipment failure. This is problematic given emerging evidence that oil and gas methane emissions are underreported,[10] and that a large portion of methane emissions from petroleum production occur at a small number of so-called super-emitter sites, typically due to leaks.[11]

In November 2021, the need to reduce methane emissions gained international recognition when the Global Methane Pledge was launched at the COP26 Climate Change Conference in Glasgow.[12] The 159 signatory countries have pledged to contribute to efforts to cut methane emissions by 30% by 2030.[13] Australia joined the Methane Pledge in October 2022, but did not specify a domestic methane reduction target or a plan for how it would address these emissions.[14]

The Future Gas Strategy: draft offshore guidelines should complement and support Australia's commitment to the Global Methane Pledge. Australia's pipeline of gas developments could increase methane emissions and thereby undermine the government's achievement of the Global Methane Pledge.

IEEFA also recommends that the department consider the merits of mandatory leak detection and repair regimes for all oil and gas facilities to lower methane emissions.

Improved monitoring and measurement of methane emissions will also help to identify opportunities to reduce venting and incomplete combustion in flaring, in line with government expectations under the current guidelines (as set out on page 4 of the Venting and flaring guidelines).

[10] IEEFA. Prioritising methane abatement makes economic sense. December 2024. Pages 10-12.
[11] US Greenhouse Gas Centre. Advanced Technology to Detect Methane "Super Emitters" from Oil and Natural Gas Operations. December 2024.
[12] US Department of State. The US and EU led pledge represents a watershed moment in global efforts to tackle methane emissions. 17 September 2021.
[13] International Energy Agency. Methane emissions remained stubbornly high in 2022 even as soaring energy prices made actions to reduce them cheaper than ever. 21 February 2023.
[14] The Hon Chris Bowen MP, Minister for Climate Change and Energy. Australia joins Global Methane Pledge. 23 October 2022.