

FOSSIL METHANE: A NEAR-TERM ABATEMENT OPPORTUNITY | CONSULTATION

Australian Energy Producers | 14 August 2026

Australian Energy Producers welcome the opportunity to provide feedback on this consultation led by the Climate Change Authority (CCA). The Australian oil and gas industry is committed to net zero across the economy by 2050 and meeting the objectives of the Paris Agreement.

Methane emissions from Australia's oil and gas sector are among the lowest in the world. Australia's oil and gas sector accounts for around 5 per cent of Australia's methane emissions, which represents approximately 1.5 per cent of total greenhouse gas emissions (GHG).¹ The International Energy Agency (IEA) estimates that the methane emissions intensity of Australian natural gas production is the second lowest of any country globally, behind only Norway.²

Australia's existing climate policy and regulatory framework provide a robust framework for reporting and reducing methane emissions from Australia's oil and gas industry. The National Greenhouse and Energy Reporting (NGER) Scheme provides a robust emissions measurement and reporting framework consistent with international best practice, while the Safeguard Mechanism (SGM) provides the policy framework for driving emissions reductions across the oil and gas sector.

Recommendations:

- **Australia's climate policy should continue to prioritise least-cost emissions reductions on a CO₂ equivalent (CO₂e) basis consistent with national inventories.** Climate policy should remain focused on reducing total GHG emissions, rather than targeting specific gases.
- **The SGM should remain the primary policy for reducing emissions from the oil and gas sector.** Methane-specific differentiation may distort existing incentives, increase complexity and compliance costs and undermine least-cost abatement.
- **Global warming potential (GWP) measured over 100 years should remain the basis for Australia's emissions accounting, policy and regulatory frameworks.** Introducing GWP over 20 years as a policy or compliance metric would reduce policy certainty and create unnecessary complexity.
- **Climate policy should align with the NGER measurement and reporting framework.** A disconnect between policy requirements and the ability to demonstrate compliance under the NGER Scheme could drive ineffective and inefficient outcomes.
- **The NGER Scheme should continue to develop practical and implementable measurement-based methods in partnership with industry.** For several methane sources, measurement-based reporting options are unavailable, unduly onerous or not fit-for-purpose.
- **Higher-order NGER methane measurement methods should complement, not replace, Method 1 approaches.** Method 1 factors provide a conservative basis for emissions estimates, while optionality remains an important design principle within NGER to balance costs and benefits of higher-order method reporting.
- **Government and industry should continue collaborating to improve methane measurement, monitoring, reporting and verification (MMRV) availability.** Evidence-based collaboration will improve reporting accuracy and support practical, cost-effective methane measurement which can be a key enabler for abatement.

Further comments and recommendations are provided below.

¹ Climate Change Authority (2026), *Fossil Methane Consultation*, p.15.

² International Energy Agency (May 2026), [Global Methane Tracker](#)

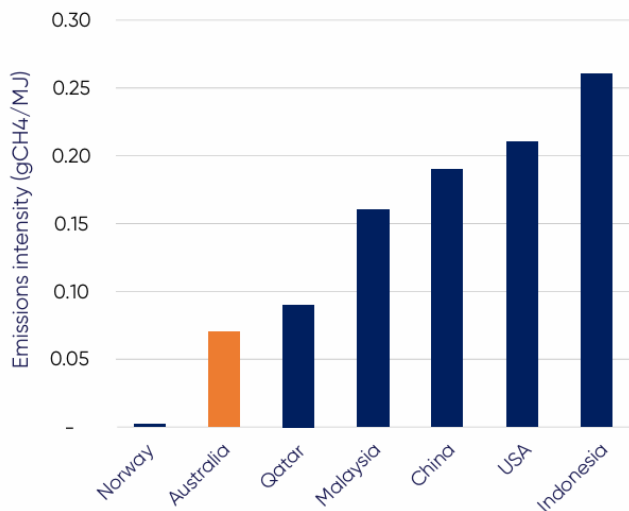
COMMENTS AND RECOMMENDATIONS

Under all credible net zero scenarios, natural gas is needed through to 2050 and beyond, as highlighted in the Future Gas Strategy.³ The Australian oil and gas industry is committed to net zero across the economy by 2050. Reducing emissions from oil and gas operations, including methane emissions, has been a priority for the industry for decades and is a central tenet of the sector's climate change commitment.

The oil and gas sector is committed to reducing methane emissions from operations in Australia. Australian Energy Producers' members support a range of international methane initiatives, including the Oil and Gas Methane Partnership 2.0, Oil and Gas Climate Initiative, the Coalition for LNG Emission Abatement towards Net-zero (CLEAN) Initiative, the Oil and Gas Decarbonisation Charter, and the Association of Southeast Asian Nations Methane Leadership Program.

The methane emissions intensity of Australia's oil and gas sector is among the lowest in the world. Methane emissions from oil and gas production are estimated to be around 5 per cent of Australia's total methane emissions, which represents 1.5 per cent of total GHG emissions.⁴ The agriculture and coal sectors contribute an estimated 49 per cent and 18 per cent of Australia's methane emissions, respectively.

Figure 1: Methane emissions intensity of natural gas production by country (IEA Global Methane Tracker)



Globally, the oil and gas sector is estimated to account for around 10-15 per cent of total methane emissions.⁵

The IEA estimates that the methane emissions intensity of Australian natural gas production is the second lowest of any country globally, behind only Norway (see Figure 1).⁶ The Australian oil and gas sector contributes less than 0.45 per cent of methane emissions from oil and gas production globally.⁷

This is also reflected in analysis by the CLEAN Initiative, which identifies several Australian LNG projects as having carbon intensities below global benchmarks and

includes several examples of successful methane abatement projects that have been executed in Australia.⁸

³ This position has been more recently reiterated, including in DISR (June 2026), [Australian Government response: Future Made in Australia Bill inquiry](#).

⁴ Climate Change Authority (2026), *Fossil Methane Consultation*, p.15. This paper references DCCEEW (2026), *Australia's National Greenhouse Accounts*.

⁵ Extrapolated from International Energy Agency (2026), *Global Methane Tracker 2026*.

⁶ International Energy Agency (2026), [Global Methane Tracker](#)

⁷ Global Carbon Project (2024), *Global Methane Budget*

⁸ CLEAN (2025), *Annual Report*, pp. 31-46.

LEAST-COST EMISSIONS REDUCTIONS POLICY

The SGM provides a robust policy framework for driving methane emissions reductions in the oil and gas sector. The Australian Government has made it clear that the “*Safeguard Mechanism is the Australian Government’s policy for reducing emissions at Australia’s largest industrial facilities.*”⁹ The Consultation Paper notes that around 75 per cent of emissions from oil and gas and coal sectors are covered by the SGM. With baselines declining year-on-year, the SGM will continue to drive emissions reductions, including methane emissions, while allowing businesses to pursue the lowest-cost abatement opportunities across their operations.

Introducing additional methane-specific policy differentiation for SGM facilities could increase the costs of achieving Australia’s emissions reduction objectives. Methane-specific policy drivers would direct investment towards a single GHG, rather than supporting the most efficient portfolio of emissions reductions. In doing so, this would reduce the flexibility that underpins the SGM’s least-cost design, increasing compliance costs, creating conflicting regulatory signals, and risking the diversion of investment away from emissions reduction opportunities that deliver greater emissions reductions at lower cost. Such an approach would complicate the operation of the SGM and increase uncertainty about the future policy treatment of other greenhouse gases, technology options and sectors.

Australia’s climate policy should continue to prioritise least-cost emissions reductions on a CO₂e basis consistent with national inventories. Practical, verifiable and least-cost emissions reductions are underpinned by a common CO₂e accounting framework aligned with Australia’s national inventories. A stable climate policy and reporting framework, based on the consistent use of GWP100 and CO₂e (see further details below), provides a common basis for comparing and aggregating the climate impacts and actions of different GHGs and identifying least-cost emissions reduction opportunities. Shifting away from a common accounting unit, or adding gas-specific policies, makes it more difficult to set economy wide GHG emissions reductions targets, compare mitigation options, assess progress, and facilitate least-cost abatement.

METHANE ABATEMENT OPPORTUNITIES IN AUSTRALIA

Australia’s oil and gas sector has one of the world’s lowest methane emissions intensities and therefore does not have the same low-cost methane abatement opportunities many higher intensity regions have. The largest and lowest-cost methane abatement opportunities globally are concentrated in higher methane-intensity producing regions, where emissions reductions policies may be less stringent and significant emissions reductions can often be achieved through relatively low-cost operational improvements and technology upgrades. Consequently, global assessments of low- and no-net-cost methane abatement are heavily influenced by these regions and should not be assumed to represent the technical and economic abatement potential of Australia’s upstream oil and gas sector.

In practice, many of the low- and no-net-cost methane abatement opportunities identified globally are not available or applicable to Australian oil and gas operations, reflecting Australia’s lower methane intensity, operating conditions and existing infrastructure. The IEA assessment that Australia has a range of low- and no-net-cost methane abatement options is derived from methane marginal

⁹ Department of Climate Change, Energy, the Environment, and Water, [Safeguard Mechanism](#) (website), accessed 30 July 2026

abatement cost assumptions that are "*generally based on proportions from the United States*" and broader international datasets. This simplification does not adequately reflect the technical and economic abatement potential of Australian facilities.

Methane detection, measurement and abatement opportunities vary significantly by region, resource, project and operating environment. Technology readiness is more nuanced than presented in the Consultation Paper. As noted in a joint report by the International Association of Oil & Gas Producers (IOGP) and IPIECA, methane emissions detection and quantification technologies each have specific strengths and applications, with their suitability varying according to the emission source, operating environment and deployment purpose.¹⁰ It is therefore important to assess technologies according to their specific application, taking into account the nature of the emissions source, the operating environment, whether they use top-down or bottom-up approaches, their level of readiness, and their ability to reliably detect, quantify and verify emissions for specific regulatory and compliance purposes. Industry continues to evaluate and deploy a suite of detection and measurement tools, but no single technology is appropriate for all source types, operating environments or regulatory purposes.

The Australian oil and gas industry is developing and deploying technologies to support methane MMRV and reduce methane emissions from their operations. These technologies include optical gas imaging (OGI), infrared cameras, drones, sensors, remote monitoring systems, and an increasing use of satellites and robotics. However, best-practice methane monitoring requires a portfolio of complementary technologies, with no single technology capable of accurately detecting, localising and quantifying methane emissions across all source types, operating environments and regulatory applications. While detection technologies continue to advance, accurate quantification also remains sensitive to factors such as operator expertise, wind conditions, release geometry, intermittency, site layout, plume behaviour and modelling assumptions.

Additional considerations are also required for offshore facilities which operate under unique safety, logistics and maintenance constraints. Access windows, shutdown frequency, weather conditions, personnel limitations and offshore safety requirements all influence the timing and practicality of methane measurement and equipment replacement activities.

Government and industry should continue collaborating on methane MMRV technologies to improve access and validation for Australian use cases. Technology availability and validation for specific use cases in the Australian market can be barriers to broad-scale adoption. Government and industry should continue to work together to develop national evidence-based capability in measurement infrastructure. This may include establishing a facility to evaluate technologies against known releases, quantify uncertainty, train practitioners, evaluate service providers and inform realistic regulatory expectations. This could also reduce costs for all parties seeking access to technology. There may also be opportunities to manage risks to commercially sensitive data while making top-down information available across sectors to inform abatement options.

¹⁰ IOGP and IPIECA (December 2025), *Recommended practices for methane emissions detection and quantification technologies – upstream*, p. 150.

MEASUREMENT AND VERIFICATION

GWP100 should remain the basis for Australia's emissions accounting, climate policy and regulatory frameworks. GWP100 remains the most appropriate metric for Australian emissions accounting and climate policy because it provides a stable, internationally agreed basis for comparing GHGs and assessing progress towards long-term climate objectives. It also aligns Australia with international climate policy, where GWP100 is required under the UNFCCC submission process to allow for comparability between data submitted by different countries. Climate policy ultimately requires a stable and internationally consistent metric that balances short- and long-lived gases while maintaining focus on the long-term warming impacts of cumulative CO₂ emissions.

AEP supports the continued evolution of the NGER Scheme in partnership with industry and encourages the practical and implementable measurement-based methods. For several methane sources, measurement-based reporting options are unavailable, unduly onerous or not fit-for-purpose. AEP suggests measurement-based reporting that uses engineering assumptions to appropriately scale emissions measurements spatially and temporally. If new policies or regulation drive methane emission reductions that cannot be reported, they will simply add costs and complexity without delivering verifiable abatement outcomes.

Higher-order NGER methane measurement methods should complement, not replace, Method 1 approaches. Measurement based reporting should promote optionality, not reduce it. This allows operators to balance precision, practicality and materiality of specific emissions and facility characteristics. Method 1 factors were developed with the intention of being conservative and biased to overestimate emissions and are important for reporting sources where the investment in equipment, measurement, sampling, testing and resourcing is not proportionate to the abatement opportunity, or where there are unresolvable technical and commercial challenges. Method 1 approaches should therefore remain an option available for methane reporting.

Final CCA advice should be reviewed alongside Foley Panel findings and additional work on bottom-up methodologies. AEP welcomes engagement with the Foley expert panel as it considers how top-down approaches to estimating methane emissions can enhance NGER Scheme estimation methods. The oil and gas sector values continuous improvement and stands ready to share its experience with emerging technologies and their operational application. The Consultation Paper acknowledges that this work is due to be completed in mid-2027. This means CCA advice will be provided to government before the finalised report on the suitability of top-down technologies to enhance methane estimation is completed. This timing is important given the integral role that robust, workable measurement approaches have in emissions inventory reporting, and the key role effective measurement plays in underpinning effective appraisals of abatement opportunities. Progressing policy changes that pre-empt the conclusions of the Panel risks unnecessarily increasing methane MMRV cost and complexity without corresponding emissions being reflected in Australia's National Greenhouse Accounts or in assessments of Australia's progress toward climate targets.