

Addressing methane emissions from oil and gas production

The oil and gas sector is committed to reducing methane emissions from operations in Australia.

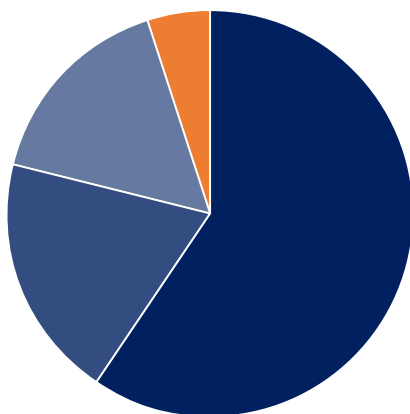
Under all credible net zero scenarios, natural gas is needed through to 2050 and beyond, as highlighted in the Future Gas Strategy. The Australian oil and gas industry is committed to net zero across the economy by 2050. Reducing methane emissions from oil and gas operations has been a priority for the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

Australian Energy Producers is a member of the international Methane Guiding Principles (MGP) initiative and support the Government's commitment to the Global Methane Pledge. Members support a range of international methane initiatives including the MGP, the Oil and Gas Methane Partnership 2.0 and the Oil and Gas Decarbonisation Charter.

Australian Snapshot

Australian methane emissions, by sector

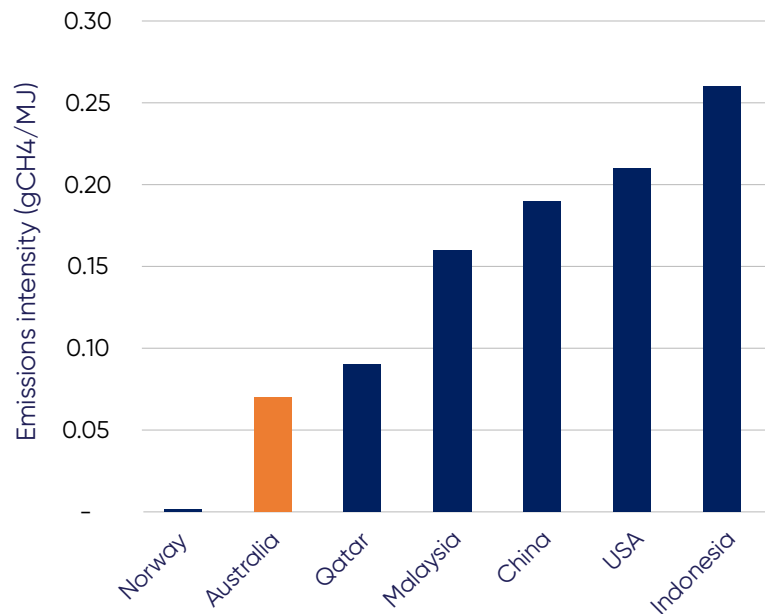
Australian National GHG Accounts



■ Agriculture
■ Coal
■ Other
■ Oil and gas

Methane emissions intensity of natural gas production, by country

International Energy Agency | Global Methane Tracker



Methane emissions from Australia's oil and gas sector are among the lowest in the world.

Methane emissions from oil and gas production represent 5 per cent of Australia's total methane emissions, and 1.4 per cent of total greenhouse gas (GHG) emissions. The agriculture and coal sectors contribute 60 per cent and 19 per cent of Australia's methane emissions, respectively.

The International Energy Agency estimate that the methane emissions intensity of Australian natural gas production is the second lowest of any country globally, behind only Norway.¹ The Australian oil and gas sector contributes less than 0.45 per cent of methane emissions from oil and gas production globally.²

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Why is it so important to address methane emissions?

Methane is the key component of natural gas, so when it's used to generate electricity or to power industry it is an important fuel for Australian households and businesses. However, if methane is released to the atmosphere, it is a GHG that contributes to climate change. Methane has 30 times the global warming potential (GWP) of carbon dioxide (CO₂) when

considered over a 100-year time period, meaning reducing 1 tonne of methane emissions is equivalent to reducing 30 tonnes of CO₂ emissions. Over a 20-year time period, the GWP of methane increases to 82-87 times that of CO₂.¹ Overall, methane emissions contribute around 28 per cent of Australia's total GHG emissions.³

The oil and gas sector is deploying cutting edge technologies to detect, measure and reduce methane emissions.

The Australian oil and gas industry is deploying cutting edge technologies to support methane monitoring, measurement, reporting and verification (MMRV) and the reduction of methane emissions from operations, including infrared cameras and optical gas imaging

as well as an increasing role for robots, drones, and satellites. Best practice methane monitoring requires a portfolio of technologies, with no single technology able to accurately localise and quantify methane emissions in all situations.

Methods of Methane Monitoring



Metering



Continuous monitoring sensors



Cameras and optical imaging



Drones



Aircraft



Satellites

Australia has a world leading monitoring and reporting framework.

The National Greenhouse & Energy Reporting (NGER) scheme provides the framework for Australian oil and gas industry reporting of methane emissions and is considered world leading with respect to emissions monitoring and reporting oversight.⁴

The Australian oil and gas industry is actively working with the government to improve MMRV from oil and gas operations.

¹ IEA, *Global Methane Tracker*, 2024

² Global Carbon Project, *Global Methane Budget*, 2024

³ When measured on a CO₂ equivalent basis

⁴ Minister for Climate Change and Energy, Chris Bowen, *Media release: Climate Change Authority's Carbon Crediting and Emissions Reporting reviews provided to Government*, 2023