



Policy statement: Venting and flaring from offshore petroleum facilities

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This policy statement outlines the Australian Government's policy position on the management of venting and flaring of gas associated with offshore petroleum facilities in Commonwealth waters.

In May 2024, the Australian Government released the Future Gas Strategy. The Future Gas Strategy committed the government to work with regulators and industry to reduce and where possible eliminate venting and flaring of gas, unless required for safety purposes. This commitment is reflected in the Resources Sector Plan and supports progress towards Australia's net greenhouse gas emissions reduction targets. These targets are 43% below 2005 levels by 2030, 62–70% below 2005 levels by 2035 and achieving net zero greenhouse gas emissions by 2050.

The Australian Government expects that the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) and the National Offshore Petroleum Titles Administrator (NOPTA) will work within the offshore regulatory framework to support Australia's greenhouse gas emissions net zero targets and reduce gas-related emissions, as outlined in the Future Gas Strategy.

This policy statement outlines the government's expectations of how:

- titleholders manage venting and flaring of gas associated with offshore petroleum facilities
- regulators support the delivery of the Future Gas Strategy commitment under the existing offshore regulatory regime of the [Offshore Petroleum and Greenhouse Gas Storage Act 2006](#) (OPGGGS Act) and associated regulations.

This statement outlines the current framework for regulating venting and flaring in Commonwealth waters by Australia's offshore petroleum regulators.

The Department of Industry, Science and Resources (the department) consulted NOPSEMA and NOPTA in developing this policy statement.

Venting and flaring associated with onshore petroleum production activities is not in scope for this policy statement.

What is venting and flaring?

Venting and flaring are activities that release gases into the atmosphere as part of petroleum exploration, development, and production.

- Venting is the intentional or unintentional release of gas streams or process by-products into the atmosphere, including emergency discharges.
- Flaring involves igniting the released hydrocarbons and process by-products, converting methane to mostly carbon dioxide.

Both venting and flaring activities release greenhouse gases and are contributing to climate change.

Why does venting and flaring occur?

Offshore petroleum titleholders currently use venting and flaring to dispose of gas for safety purposes. Venting and flaring of gas can also be used for economic and operational reasons where its use, export or re-injection is not feasible. For example, if processing systems are restricted during operations, venting or flaring may be necessary. It may also occur if, during oil project design, there is insufficient demand, capital or infrastructure. These constraints may hinder return on the investment needed to bring the associated gas to market.

Venting can occur intentionally. An example of intentional venting is during the removal of carbon dioxide from product gas streams. Another example of intentional venting is through managing gases from equipment which use natural gas as a seal. Venting can also occur unintentionally. An example of unintentional venting is during a flare flame-out scenario.

The safety of the offshore workforce is paramount. The planned use of venting and flaring are considered risk-reducing safety controls. This is because venting and flaring can be used to maintain the integrity of the facilities and to prevent harm to personnel and equipment. However, venting and flaring present their own risks. Because of this, they should only be done when necessary to ensure the safety of the workers and the facility. Some examples of when venting and flaring can occur include, but are not limited to:

- during production start-up
- equipment failure
- pressure relief for individual pieces of equipment
- emergency depressurisation
- manual blow-down in case of emergency
- maintenance operations or inspections.

It is government's expectation that titleholders and regulators work to reduce and, where possible, eliminate venting and flaring of gas, except for safety purposes. This includes reducing venting and flaring for economic and operational reasons.

Regulation of offshore venting and flaring

Offshore oil and gas activities, including venting and flaring, are regulated under the OPGGS Act and associated regulations, including:

1. [Offshore Petroleum and Greenhouse Gas Storage \(Safety\) Regulations 2009](#)¹ (Safety Regulations)
2. [Offshore Petroleum and Greenhouse Gas Storage \(Resource Management and Administration\) Regulations 2011](#) (RMA Regulations)
3. [Offshore Petroleum and Greenhouse Gas Storage \(Environment\) Regulations 2023](#) (Environment Regulations).

From a regulatory perspective, the government expects venting and flaring should be minimised, and it is first and foremost a safety issue. Venting and flaring also represent both a loss of a natural resource and a source of environmental impact. Venting and flaring must therefore also be considered as aspects of resource management and environmental management.

NOPTA and NOPSEMA both have a role in regulating venting and flaring.

NOPTA assesses and provides technical advice regarding resource management in respect of offshore petroleum production activities in Australian Commonwealth waters. These production activities, described in field development plans (FDP) accepted by the Joint Authority, also include venting and/or flaring of hydrocarbon gases. Under the RMA Regulations, NOPTA collects data on production, including the volume of hydrocarbons vented or flared during the production phase.

NOPSEMA considers environmental impacts and risks of emissions that will be produced by proposed activities, including emissions from venting and flaring, when assessing offshore project proposals and environment plans under the Environment Regulations. It also considers the operation of venting and flaring systems when assessing safety cases and during inspections.

Safety Regulations

The OPGGS Act and the Safety Regulations aim to protect the health, safety and welfare of workers and prevent major accidents from happening through process safety.

Schedule 3 to the OPGGS Act imposes specific duties relating to occupational health and safety (OHS) on a number of parties. A facility ‘operator’ (as defined in clause 3 of Schedule 3 of the OPGGS Act) has direct responsibility for the ongoing management of OHS at the relevant ‘facility’ (also defined in clause 3 of Schedule 3 of the OPGGS Act) and must take all reasonably practicable steps to ensure the facility and its activities are safe and without risk to health.²

The objects of the Safety Regulations include ensuring that:

¹ The new [Offshore Petroleum and Greenhouse Gas Storage \(Safety\) Regulations 2024](#) commence on 12 June 2025 and will replace the current Safety Regulations.

² Offshore Petroleum and Greenhouse Gas Storage Act 2006 (Cth), clause 9(1) of Schedule 3.

- facilities are designed, constructed, and operated in accordance with safety cases that have been accepted by NOPSEMA
- safety cases for facilities provide for the following matters in relation to the health and safety of persons at or near the facilities:
 - identifying hazards and assessing risks
 - implementing measures to eliminate hazards or control risks
 - a comprehensive and integrated system for managing hazards and risks
 - monitoring, audit, review, and continuous improvement.
- risks to the health and safety of persons at facilities are reduced to a level that is ‘as low as reasonably practicable’ (ALARP).³

In line with the requirements under the Safety Regulations, the government expects an operator to identify hazards (such as a hydrocarbon leak) and assess the risk in order to identify the control measures (such as venting and flaring) that are necessary to reduce that risk to a level that is ALARP.⁴

The Safety Regulations require that each facility in Commonwealth waters must have a safety case. Safety cases are sophisticated, comprehensive, integrated risk management systems developed for each facility and its operational activities. They are the primary mechanism for managing and reducing facility safety risks to ALARP. It is an offence to undertake an activity at a facility without a safety case that has been assessed and accepted by NOPSEMA that provides for that activity.⁵

A flaring management plan (or similar) may inform the safety case. It may describe how venting and flaring will be conducted and managed on the facility. This may include the volume and duration limits for different flaring events, corrective actions and approvals required.

Venting and flaring activities themselves may be hazardous to safe operations. Appropriate shielding and ventilation are required in all normally manned areas. This is to ensure protection for workers from radiation and the potential build-up of toxic gases generated by both production flaring (prolonged process flaring) and emergency flaring (short-term process flaring). These factors should also be addressed in the safety case and ideally in the design of the facility.

RMA Regulations

An object of the RMA Regulations is to ensure that operations in an offshore area are carried out in accordance with good oilfield practice and are compatible with the optimum long-term recovery of petroleum.

Good oilfield practice is defined in section 7 of the OPGGS Act as all those things that are generally accepted as good and safe in the carrying on of exploration for petroleum or petroleum recovery operations. It is generally understood as reflecting and incorporating all those practices which are generally accepted as safe, economical, and efficient in exploring for and exploiting petroleum. The underlying concepts of conservation, energy efficiency,

³ Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2024 (Cth), regulation 1.4.

⁴ Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2024 (Cth), regulation 2.5(2).

⁵ Offshore Petroleum and Greenhouse Gas Storage (Safety) Regulations 2024 (Cth), regulation 2.44.

maximising ultimate recovery, and minimising resource wastage are included in the concept.

NOPTA's responsibilities include ensuring petroleum resource management is undertaken in accordance with the principles of good oilfield practice. NOPTA considers venting and flaring activities in its responsibilities to ensure good oilfield practice.

The government expects titleholders to minimise venting and flaring by planning and implementing best practice at an early stage in development planning and design. Government also expects titleholders to minimise venting and flaring through continuous improvements during the subsequent operational phase. The titleholder should ensure routine operations are aligned with good oilfield practice. This includes those elements of facility performance relevant to improving efficiencies and reducing venting and flaring, except for safety purposes.

Under the RMA Regulations, a production licensee must have an FDP accepted by the Joint Authority prior to undertaking petroleum recovery from a pool in the licence area.⁶ The FDP describes the comprehensive strategy and technical details for developing and producing petroleum resources from a specific field or pool within a licence area. Matters relating to venting and flaring in accepted FDP must be consistent with the principles of good oilfield practice and compatible with optimum long-term recovery of petroleum.

A production licensee must apply to the Joint Authority to accept a variation to an FDP if the licensee intends to make a major change in relation to the recovery of petroleum from the field.

Reporting to NOPTA

The RMA Regulations require the submission of reports from industry to NOPTA regarding venting and flaring amounts. This includes monthly production reports (MPRs) and annual title assessment reports (ATARs) as per regulations 7.19 and 3.08 of the RMA Regulations respectively.

Reporting received by NOPTA through MPRs and ATARs is not published. Aggregated and de-identified information is used for specific publication requirements or provision of information to other parts of government. For example, NOPTA provides aggregated and de-identified offshore information in support of Geoscience Australia's annual *Australia's Energy Commodity Resources* publication, which provides estimates of the nation's non-renewable energy resources.

Industry also provides NOPTA with information relevant to fuel, flare and vent volumes (FFV) as part of other compliance requirements, such as annual field performance reviews (FPRs), although this is not a specific regulatory requirement.

Data received by NOPTA includes 'flare and/or vented' volumes from projects. Facilities operating in Commonwealth waters vary from wholly offshore facilities such as floating production, storage and offtake (FPSO) and floating liquefied natural gas (FLNG) facilities, as well as integrated production systems that include both offshore and onshore elements. Reporting for projects with both offshore and onshore facilities tends to be more

⁶ Offshore Petroleum and Greenhouse Gas Storage (Resource Management and Administration) Regulations 2011 (Cth), regulation 4.02.

inconsistent, as not all FFV volumes in a project's production system are required to be submitted to NOPTA.

FPRs are held annually with titleholders of producing fields and include more detailed information on production and facility efficiency, which often includes relevant FFV information. NOPTA also receives relevant information on carbon dioxide composition of raw gas produced from offshore fields. This allows it to make estimates on the total volume of carbon dioxide expected to be produced throughout the life of a project.

Environment Regulations

The object of the Environment Regulations is to ensure that any petroleum activity or greenhouse gas activity in an offshore area is carried out in a manner:

- a) consistent with the principles of ecologically sustainable development set out in section 3A of the [*Environment Protection and Biodiversity Conservation Act 1999*](#) (EPBC Act)
- b) by which the environmental impacts and risks of the activity will be reduced to ALARP
- c) by which the environmental impacts and risks of the activity will be of an acceptable level.⁷

In 2014, following a strategic assessment of NOPSEMA's environmental management authorisation process for offshore petroleum and greenhouse gas activities in Commonwealth waters under the OPGGS Act, the Commonwealth Minister for the Environment endorsed this process as a program that meets the requirements of Part 10 of the EPBC Act. The Minister for the Environment subsequently approved a class of actions that are petroleum and greenhouse gas activities in Commonwealth waters regulated by NOPSEMA under the endorsed program, subject to a list of exclusions (the Part 10 class of actions Approval).⁸

Titleholders seeking to undertake offshore petroleum or greenhouse gas activities in accordance with the endorsed program do not need referral, assessment or approval under the EPBC Act.

Titleholders proposing to undertake offshore petroleum or greenhouse gas activities that are excluded from the Part 10 class of actions Approval will require assessment and approval under the EPBC Act as administered by the Department of Climate Change, Energy, the Environment and Water, in addition to all necessary approvals under the OPGGS Act and regulations.

⁷ Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023 (Cth), regulation 4.

⁸ The final approval decision sets out the excluded actions and can be accessed at <https://www.dcceew.gov.au/sites/default/files/env/pages/06872cd4-b755-4ecf-a4e7-dd16145e1384/files/offshore-approval-decision-notice.pdf>.

Companies proposing certain offshore activities, known as offshore projects, are required to submit an offshore project proposal for acceptance by NOPSEMA.⁹ These proposals must include:

- details of the environmental impacts and risks of the activities that are part of the project
- an evaluation of all the impacts and risks, appropriate to the nature and scale of each impact or risk.

Offshore project proposals must also describe any requirements, including legislative requirements, that apply to the project and are relevant to the environmental management of the project, and how those requirements will be met.

The proposal must also describe any feasible alternative to the project, or an activity that is part of the project, including:

- a comparison of the environmental impacts and risks arising from the project or activity and the alternative
- an explanation, in adequate detail, of why the alternative was not preferred.

When an offshore project proposal is resubmitted by the proponent after the period for public comment, NOPSEMA decides whether or not it is reasonably satisfied that the proposal meets criteria for acceptance in the Environment Regulations. This includes considering whether the proposal is appropriate for the nature and scale of the project. NOPSEMA must also consider whether the proponent has demonstrated that the environmental impacts and risks of the project will be managed to an acceptable level, and has set out appropriate environmental performance outcomes for each activity consistent with the principles of ecologically sustainable development. During the assessment of an offshore project proposal, NOPSEMA considers greenhouse gas emissions (which would include the proponent's estimate of emissions associated with venting and flaring when within the scope of the project).

The Environment Regulations require an environment plan to be accepted by NOPSEMA before a proposed offshore petroleum activity may commence.¹⁰ The content requirements for an environment plan include:

- details of the environmental impacts and risks of the activity
- an evaluation of all the environmental impacts and risks (including direct and indirect impacts and risks from operational activities and potential emergency conditions), appropriate to the nature and scale of each impact or risk
- details of the control measures the titleholder will use to reduce the impacts and risks of the activity to ALARP and an acceptable level.¹¹

⁹ An offshore project means one or more activities that are undertaken for the purpose of the recovery of petroleum, other than on an appraisal basis, including any conveyance of recovered petroleum by pipeline (whether or not the activity is undertaken for other purposes).

¹⁰ Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023 (Cth), regulation 17.

¹¹ Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023 (Cth), regulation 21(5).

The government expects any venting and flaring activities to be undertaken by the titleholder will be assessed by NOPSEMA as part of the environment plan decision-making process. This includes how the titleholder has considered and adopted control measures to prevent, reduce, monitor, and offset emissions from venting and flaring activities to reduce impacts to ALARP and an acceptable level in line with the requirements under the Environment Regulations.

NOPSEMA ensures titleholders have taken into account the volumes of methane and carbon dioxide emissions arising from planned offshore activities. This occurs when NOPSEMA assesses their environment plans and offshore project proposals for offshore petroleum activities and projects.

Under the Environment Regulations, NOPSEMA must accept an environment plan if NOPSEMA is reasonably satisfied the plan meets the acceptance criteria set out in the regulations.¹² The acceptance criteria are that the plan:

- is appropriate for the nature and scale of the activity
- demonstrates that the environmental impacts and risks of the activity will be reduced to ALARP
- demonstrates that the environmental impacts and risks of the activity will be of an acceptable level
- provides for appropriate environmental performance outcomes, environmental performance standards and measurement criteria
- includes an appropriate implementation strategy and monitoring, recording and reporting arrangements
- does not involve the activity or part of the activity, other than arrangements for environmental monitoring or for responding to an emergency, being conducted in any part of a declared World Heritage property within the meaning of the EPBC Act
- demonstrates that the titleholder has carried out the required consultation, and the measures (if any) that the titleholder has adopted or proposes to adopt because of the consultation are appropriate
- complies with the OPGGS Act and any regulations made under it, including the Environment Regulations.¹³

NOPSEMA's regulatory decisions are made in accordance with the Environment Regulations and have regard for other relevant considerations, including other Commonwealth legislation such as the EPBC Act and the [National Greenhouse and Energy Reporting Act 2007](#) (NGER Act). NOPSEMA considers the requirements imposed under the Safeguard Mechanism. The Safeguard Mechanism is the primary national policy for reducing Australia's greenhouse gas emissions at Australia's largest industrial facilities.

¹² Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023 (Cth), regulation 33(1).

¹³ Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023 (Cth), regulation 34.

Monitoring and reporting to NOPSEMA

As part of the implementation strategy for an environment plan, titleholders are required to monitor and maintain a quantitative record of emissions and discharges (whether occurring during normal operations or otherwise). This includes records of emissions and discharges into the environment that are made in accordance with the environment plan. This ensures records can be used to assess whether the environmental performance outcomes and standards in the accepted environment plan are being met.¹⁴ Titleholders must make copies of records available to NOPSEMA upon written request.¹⁵

An environment plan sets out the timeframes within which a titleholder must submit a report to NOPSEMA on their environmental performance for an activity. The timeframe between reports must not be more than 12 months. When assessing environment plans, NOPSEMA considers whether the reporting timeframes are appropriate for determining whether the environmental performance outcomes and standards in the environment plan have been met.

Environmental performance reports must provide sufficient information to enable NOPSEMA to determine whether the environmental performance outcomes and standards in the environment plan have been met. This may include emissions from venting and flaring. If NOPSEMA is not satisfied that the report provides sufficient information, it can require the titleholder to modify the report. NOPSEMA may consider enforcement action if it is not reasonably satisfied with the report after multiple opportunities to modify the report.

Compliance and enforcement by NOPSEMA

NOPSEMA develops and implements effective monitoring and enforcement strategies to ensure compliance by persons with obligations under the OPGGS Act and regulations. For instance, NOPSEMA may undertake an environmental inspection of offshore premises and regulated business premises to monitor compliance with environmental management laws.¹⁶ It is an offence for a titleholder to undertake an activity in a way that is contrary to the environment plan that is in force for the activity.¹⁷

Other emissions reporting

The Clean Energy Regulator (CER) administers the National Greenhouse and Energy Reporting Scheme (NGER scheme). The NGER scheme is the single national framework for reporting information on greenhouse gas emissions, energy production, and energy consumption. Under the scheme, offshore operations that meet reporting thresholds are obligated to report their greenhouse gas emissions, energy production and energy consumption each year.

¹⁴ Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023 (Cth), regulation 22(6).

¹⁵ Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023 (Cth), regulation 53.

¹⁶ Offshore Petroleum and Greenhouse Gas Storage Act 2006, Schedule 2A.

¹⁷ Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2023 (Cth), regulation 18.

A range of activities in the offshore oil and gas sector typically produce emissions. Some examples include, but are not limited to:

- stationary combustion of fuels (for example, to generate electricity or run equipment such as compressors)
- transport combustion of fuels
- natural gas leakage
- venting (both intentional and unintentional)
- flaring.

Reports submitted under the NGER Act are collected through an online, secure proforma-based system. The CER monitors compliance with the NGER scheme through systematic analysis of reported data for qualitative or quantitative errors and through consideration of findings from its annual audit program. Where reporting errors are identified and confirmed, the CER may require that the data is corrected through resubmission.

The Safeguard Mechanism is enacted through the NGER Act and other legislation. The Safeguard Mechanism is the Australian Government's main policy for reducing emissions at Australia's largest industrial operations. The Safeguard Mechanism applies to all facilities that emit scope 1 emissions of over 100,000 tonnes of carbon dioxide equivalent per year. It sets legislated limits, known as baselines, on emissions which decline over time to help achieve Australia's net zero emissions targets. The CER administers the Safeguard Mechanism by setting baselines, ensuring operations comply with their baselines, issuing Safeguard Mechanism credit units, and publishing safeguard data.

The CER is required to publish for each financial year and operation the amount of covered emissions. These covered emissions are broken down by:

- gas type
- their baseline
- the number of type of carbon units surrendered
- the methodology determination under which they were created (if relevant).

The method type used to report fugitive methane emissions sources from oil and natural gas activities is also published.

The reporting requirements under the NGER Act are improved over time as part of annual updates, taking into account Australia's reporting requirements under the Paris Agreement and improvements in accounting methods and approaches. The government has established an expert panel, led by Australia's former Chief Scientist, to provide advice on the current scientific understanding of atmospheric measurement approaches to fugitive methane emissions, and whether and how those approaches could help improve Australia's fugitive methane emission estimates now and into the future.