

# National Greenhouse and Energy Reporting Regulations Policy Paper

Submission by ExxonMobil Australia Pty Ltd



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## **Introduction**

Globally, Exxon Mobil Corporation is the world's largest publicly quoted oil and gas company and the world's largest corporation in terms of market capitalisation.

<sup>1</sup>ExxonMobil Australia Pty Ltd ("ExxonMobil"), through its subsidiaries, Esso Australia Pty Ltd and Mobil Oil Australia Pty Ltd has been operating in Australia for over 100 years and is the largest integrated oil and gas company with a total investment of over A\$13 billion.

ExxonMobil is a major producer of oil and gas and a marketer of petroleum products in Australia. Through our operations most notably in Bass Strait in our Joint Venture with BHP Billiton, we have produced approximately two-thirds of the country's cumulative oil production and almost one-third of gas production. In addition, ExxonMobil is seeking to become a major producer of gas in the Carnarvon Basin off Western Australia.

In our downstream business we have extensive fuels and lubricants marketing operations, including the supply of petroleum products to a network of approximately 800 Mobil branded service stations and we are the owner and operator of the Altona Refinery.

## **Background**

In previous submissions to government ExxonMobil has indicated its strong support for the proposal to use verified emissions data from a mandatory national scheme as proposed under the new National Greenhouse and Energy Reporting (NGER) Act.

A key strength of the NGER Act is that it provides for a single streamlined national scheme and data source and overrides state based schemes that utilize different methodology and reporting guidelines. The efficiency benefits of a single reporting scheme are significant and it is important that Regulations are structured and applied in a manner that ensures that only a single reporting scheme is established and maintained and that any other reporting schemes are replaced.

In addition it should provide a robust and transparent basis of emissions estimates for eventual linkage with the Australian Emissions Trading Scheme (AETS).

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<sup>1</sup>ExxonMobil Australia Pty Ltd is a subsidiary of Exxon Mobil Corporation. ExxonMobil Australia Pty Ltd has a number of subsidiaries with assets and operations in Australia many with names that include ExxonMobil, Exxon, Esso and Mobil. For convenience and simplicity in this submission those terms and the terms corporation, company, our, we and its are sometimes used as abbreviated references to a specific subsidiary or groups of subsidiaries in the ExxonMobil Australia Group of companies.

## Reporting Greenhouse Gas Emissions

ExxonMobil is committed to reporting greenhouse gas emissions from our operations, and we have reported our emissions globally since 1998 – and from our Australian operations since 1997.

Calculating and comparing GHG emissions globally is complex, not least because:

- Emissions from petroleum production and refining operations can vary widely due to differing geological circumstances, the number and type of unprocessed or semi-processed gases used as fuels, natural resource characteristics such as sulfur levels in crude oil, the range of end-product specifications required in different regions, countries, or even local markets and the different configuration of process units or 'hardware' in refineries.
- Oil and gas processing plants and refineries utilise unprocessed or semi-processed gases as fuels. These fuels are sourced from multiple offtakes at various points in the process and therefore can have a variety of compositions. In addition, these fuels are not subject to 'custody transfer' accuracy metering.
- The safety features of oil and gas processing plants and refineries also include flares to dispose of hydrocarbon gases to prevent equipment overpressure and protect people during process upsets or emergency situations. Metering of flares is technically difficult as flow rates and compositions vary widely.
- N<sub>2</sub>O and fugitives such as methane, are technically difficult to measure directly and therefore estimates must be based on calculations using factors. This also means that it is difficult to establish standard, accurate, equitable and transparent means to quantify the reductions from traditional emissions reduction projects.
- When utilising higher order methods and estimation techniques to calculate greenhouse emissions, rather than applying emissions factors to standard fuels, care must be taken regarding metering accuracy requirements, sampling requirements and calculation methodology. Sufficient detail is required to ensure that no industry is disproportionately disadvantaged compared to other industries. However, the practicalities of installing and maintaining large numbers of meters, meter accuracy and sampling frequency also need to be taken into account.

### *Facility Definition*

The definition of a facility presented in the NGER Regulations Policy Paper is much clearer than initially represented in the NGER Regulations Discussion Paper. ExxonMobil is generally supportive of the definition of a facility, particularly the option to report vertically integrated sites under one facility.

However, while the definition of pipelines as a single facility may be appropriate for gas distribution networks, it is not appropriate for shorter pipelines which run between sites.

For example, a company may own two sites and the pipeline that runs between them. We suggest that in this situation one of the sites is nominated to report emissions from the pipeline, similar to the approach for transport.

We note that administrative activities are defined as Ancillary activities and that emissions would therefore be attributable to the related production facility. In application this definition poses difficulties for reporting. Administrative functions often support multiple facilities, making it inappropriate to allocate Ancillary emissions to the emissions of any one facility. In addition, some administrative emissions can be difficult to monitor and track (for example, fuel use in hired cars).

ExxonMobil suggests that administrative functions based at separate locations (eg. head office) should be defined as a separate facility and that materiality criteria should apply. This would avoid overly burdensome data gathering and reporting, particularly given the small percentage of emissions that these activities represent. Moreover, emissions from ancillary activities are generally indirect emissions (electricity) or from transport fuels which will likely be purchased with carbon permits under an AETS.

#### *Implications of Facility Definition on Accuracy Requirements*

The NGER Technical Guidelines refer to different accuracy standards being applied to facilities depending on their size and quantity of emissions, with larger facilities being subject to higher accuracy standards. This policy contradicts the flexibility in facility definitions, which encourages companies to consolidate sites into one facility thereby ensuring that they trigger reporting thresholds as appropriate.

If a vertically integrated business chooses to report as one facility, it is then subject to higher accuracy requirements which may further increase the reporting burden.

It should also be noted that large facilities are often more complex with multiple fuel sources and energy consumption activities and therefore, applying a higher accuracy may actually be more difficult to achieve.

#### *NGER Uncertainty Requirements and Implications for an AETS*

Uncertainty, metering accuracy and sampling for composition have not yet been adequately addressed in the Technical Guidelines and ExxonMobil looks forward to seeing further definition. Implementing uncertainty requirements for greenhouse gas emissions reporting under an AETS is crucial in order to ensure that no company or industry is disproportionately disadvantaged under an AETS.

Note also that early definition of minimum standards is crucial as industry will require time to design and implement the necessary hardware and system changes some of which may require plant to be shutdown. Some changes may not be able to be implemented until the next scheduled maintenance shutdown which could be several years away. Particular consideration should be made for gas supply and other essential services where

reliability of supply is paramount and consequently shutdown opportunities need extensive planning to avoid impact.

Finally, uncertainty requirements should take into consideration the practicalities of facility modifications and metering in sites that are relatively expensive and difficult to access such as offshore oil and gas installations.

#### *NGER and AETS Interaction Regarding Emissions from Purchased Fuels*

Currently there is a proposal that under an Australian Emissions Trading System fuel suppliers purchase permits for fuel sales and that large users (> 25,000 tonnes CO<sub>2</sub>-eq per annum) should also be responsible for permits of purchased fuels. As such, if this proposal is adopted by the current government, there is likely to be considerable administrative and reporting burden placed on companies that sell fuels and /or are large users. There is also the potential for double counting or omitting emissions / permits from purchased fuels. The proposal will likely require extensive modification to fuel supplier computing systems and development of new reporting and government auditing systems. Reporting requirements under the NGER will need to consider these issues as the AETS design develops. ExxonMobil recommends that fuel suppliers be responsible for all fuel sold during the first phase to allow sufficient time to fully design and implement “water tight” systems that are not overly complicated and costly. If these criteria can not be satisfied the responsibility should remain with the fuel suppliers.

#### *Consumption of Energy Definition*

The definition of energy consumption includes uses for non-energy purposes such as feedstocks. Whilst we recognise the simplicity benefits of reporting energy production and consumption in this way under the NGER reporting regime, we note that carbon in these feedstocks is effectively sequestered and that energy containing feedstocks and products will require alternative treatment under an AETS.

Reporting the consumption of energy containing feedstocks for the production of non-energy products is technically challenging. Often multiple products are manufactured from a single feedstock and the energy content of the products such as asphalt, bitumens and lubricants is not measured or recorded.

#### *Materiality*

ExxonMobil is pleased to see the issue of materiality being addressed in the Policy Paper. However, it is particularly concerning that materiality does not extend to emissions within a facility. As indicated earlier in this document, oil and gas processing facilities and refineries are complex plants and generate emissions from a variety of sources such as multiple fuels, multiple flare streams, plant fugitives, fugitives from storage tanks, processing of produced formation water, venting and other activities from which emissions may occur.

The major contributors to greenhouse emissions are metered and well understood. These generally comprise well over 95% of the emissions inventory (the actual number will depend on the size and complexity of the facility). The smaller sources, however, are numerous, generally insubstantial, and very difficult to quantify accurately. With no materiality limit, a facility must either estimate these emissions using a highly inaccurate means or expend inequitable resources to increase accuracy. Thus applying materiality within a facility is crucial to enabling the oil and gas industry to fully comply with the NGER Regulations.

#### *Form of Application to Register*

ExxonMobil does not support registering for NGER online. Registration should be completed via a hardcopy letter to ensure a sufficient audit trail and to enable sufficient detail, such as explanations of company structure and activities, to be provided to the Department of Climate Change.

#### *Reporting of Energy Production*

Please note that because it is not possible to 'produce' energy, only to change its form, adding energy production from different sites or facilities does not give a meaningful number as energy sources usually pass through multiple sites, facilities and companies, which would each be required to report energy production, before reaching their end user. For example, crude oil is produced at multiple sites, then processed at other sites, then sold to other companies for refining into various products before it is sold to end use consumers.

#### *Enforcement*

ExxonMobil is strongly supportive of creating a level playing field under an AETS and therefore is not opposed to punitive measures. ExxonMobil also recognises that during NGERs establishment the enforcement approach should be focused on encouraging compliance using non-punitive measures. However, this approach should be applied to all NGER participants equally, given that all participants will require time to upgrade equipment and processes. It is inappropriate to apply punitive measures only to those which are considered to have future liability for permit acquittal.

#### *Specific Comments*

Table D4: 'Oil and gas fugitive emissions - checklist of items to be reported' in Appendix D lists some inappropriate and inconsistent units.

- Quantity of crude oil throughput should be reported in kL or barrels (not tonnes).
- Quantity of natural gas throughput should be reported as m<sup>3</sup> (not PJ)
- Quantity of natural gas liquids throughput should be reported as tonnes.
- Quantity of gas flared should be reported as km<sup>3</sup> and quantity of liquids flared should be reported as kL.