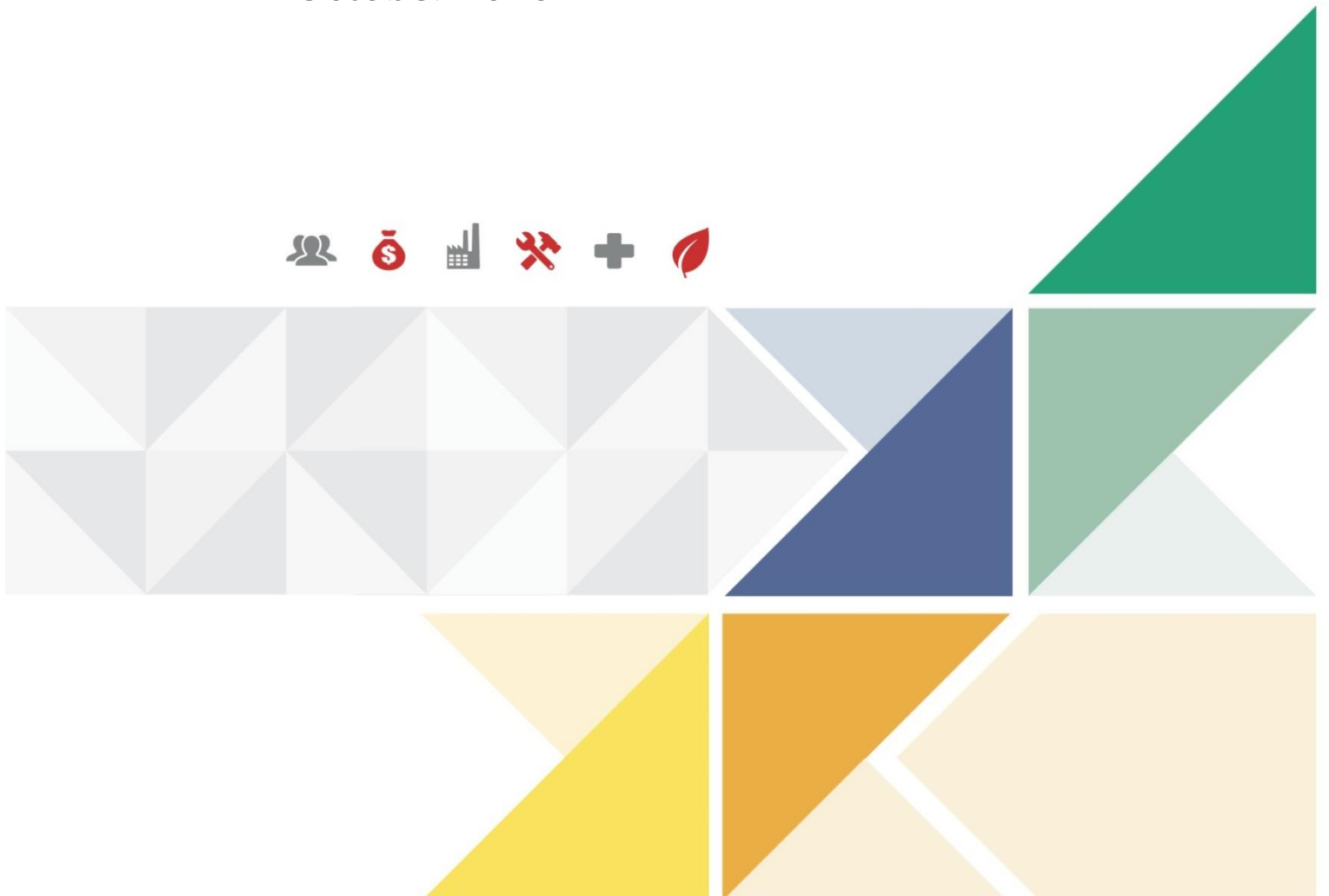




Australian Bureau of Statistics
RESPONSE TO CONSULTATION PAPER
ON MANDATORY REPORTING OF
PETROLEUM STATISTICS

October 2016





Introduction

In responding to the Consultation Paper on Mandatory Reporting of Petroleum Statistics (hereafter referred to as ‘the Consultation paper’) issued by the Department of the Environment and Energy (DoEE), the Australian Bureau of Statistics (ABS) has considered both the need for high quality data and the importance of minimising the burden on reporting businesses. For this reason, the ABS supports comprehensive mandatory reporting (option D) of domestic petroleum statistics. The introduction of a mandatory reporting scheme supported by the implementation of appropriate confidential data sharing arrangements, such as with the National Offshore Petroleum Titles Administrator (NOPTA), will allow streamlining whole of government data collection for the petroleum industry. Import and export data should be excluded as data is already comprehensively collected by the Department of Immigration and Border Protection (DIBP).

The Australian Petroleum Statistics (APS) are an important input into many estimates produced by the ABS and reducing the current APS collection could cause significant disruptions to several ABS statistical outputs. For data collected under the mandatory reporting scheme to be of greatest use to the ABS, ABS data needs should be considered. This would require detailed reporting in line with ABS classifications, consistency in geographical detail at State level and product level detail inclusive of petroleum and natural gas product derivatives. A detailed, comprehensive survey approach could avoid the need for the ABS to consider additional industry surveys and thereby avoid unnecessary compliance costs for reporting businesses. The ABS would like to offer to be involved in the survey design.

High quality and timely data on the gas industry is necessary to track accurately the growth path of the Australian economy and the growing influence of the gas industry on Australian living standards. Gas extraction is of growing significance to the Australian economy with natural gas production between 2014-15 and 2015-16 increasing 23 per cent and exports of Liquefied Natural Gas (LNG) growing an estimated 48 per cent¹. Large capital investment has resulted in three new LNG facilities producing in 2015-16², with a further four to commence operations by 2019³. The rapid growth of the gas industry in recent years has resulted in undercoverage of the industry, and it is likely that a voluntary reporting scheme for gas statistics will not be sufficient to fill the current data gaps or to collect timely data on new operations as they commence. For these reasons the ABS would prefer to extend the mandatory reporting scheme to include gas statistics, which would ensure that high quality gas statistics are available to better inform macroeconomic and industry policy over the coming decade.

The ABS response in relation to each of the Key Questions presented in the Consultation paper is expounded in this paper. The response details the following main points:

1. Use of the Australian Petroleum Statistics (APS) by publication area within the ABS.

¹ [Resources and Energy Quarterly](#), Table 32.

² Gorgon, Aus Pac and QCG LNG plants.

³ Oil and gas extraction has been the largest contributor to mining investment over the last five years with several LNG mines under construction ([see: Feature Article: Mining and Non-Mining Investment](#))





2. Preferred reporting design in support of Comprehensive Mandatory Reporting (Option D), with the exception of Import and Export data.
3. Expansion of the product data currently published to include the APS sub-category data, or for a confidential data-sharing arrangement to be established with the ABS to allow the lower level data to be used in compiling statistical aggregates.
4. A preference for expanding mandatory reporting to include gas statistics. Also an increase in the product categories published for natural gas to differentiate between LNG, natural gas, coal seam gas and other gases.
5. Additional data items recommended for collection in each product category.

How do you use the Australian Petroleum Statistics (APS)?

The APS is used by a number of areas in the ABS. The main areas concerned with the APS and their functions are detailed below. For further information on the specific data items used see [Appendix A](#).

National Accounts

The quarterly publication [Australian National Accounts: National Income, Expenditure and Product \(cat. no. 5206.0\)](#) presents detailed estimates of Gross Domestic Product (GDP). The APS is directly used to compile the production and expenditure estimates of GDP. State splits in the APS, where available, are used to assist in the modelling of state production estimates for [Australian National Accounts: State Accounts](#).

Energy Account

The annual publication [Energy Account, Australia \(cat. no. 4604.0\)](#) presents estimates of physical and monetary supply and use of energy products in Australia. Indicators of consumption by industry and households are presented to support the use of data contained in Energy Accounts Australia.

National Accounts Benchmarks

The annual Supply and Use (S-U) tables and Input Output (I-O) tables are compiled through alignment with the Energy Account, and through confrontation with GDP. The S-U tables provide an annual balanced estimate of GDP. The Input–Output (I–O) tables provide detailed information about the supply and use of products in the Australian economy, and the structure of, and inter–relationships between Australian industries. The APS report is used to confront output volume estimates for various petroleum products in the S-U tables. The tables are published in [Australian National Accounts: Input-Output Tables \(cat. no. 5209.0.55.001\)](#).

International Merchandise Trade

The APS is not currently used to confront petroleum product data published in [International Trade in Goods and Services, Australia \(cat. no. 5368.0\)](#). This publication uses Customs data provided by the Department of Immigration and Border Protection (DIBP) to present detailed commodity statistics





for both goods and services on a balance of payments basis, with goods also provided on an international trade basis. The aggregate import and export data currently published in the APS is provided by the ABS through a data-sharing arrangement.

Annual Industry Statistics (AIS)

AIS produce estimates of the economic and financial performance of Australian industry. The estimates are derived using a combination of data directly collected by the ABS and business tax data sourced from the Australian Taxation Office (ATO), and are published in [Australian Industry \(cat. no. 8155.0\)](#). AIS do not currently use the APS due to issues with data mapping to state estimates.

The Design Principles and Options

We agree with the over-arching design principles detailed in the Consultation paper. ABS has long recognised that the need for high quality statistics must be balanced against the burden imposed on survey respondents, and regularly reports on progress against the organisational commitment to minimise respondent burden in the Annual Report (refer: [Australian Bureau of Statistics – Annual Report, 2014-15 \(cat. no. 1001.0\)](#)). Given the significance of the petroleum industry and petroleum products to the Australian economy, the collection of high quality statistics in this area is essential. A unified approach through the Mandatory Reporting scheme would minimise the need for the ABS, and potentially other agencies, to separately approach the data owners that would result in wasted resources and the duplication of effort for all parties. A unified approach would also minimise respondent burden by simplifying data collection through one survey and contact point, rather than multiple surveys.⁴

As a result a Comprehensive Mandatory reporting scheme (option D) is preferred as this will provide the most comprehensive and accurate statistics on a common basis for production, sales and stocks of petroleum and petroleum products. As noted in the paper, Option D has the important benefit of minimising misclassification, conversion and consolidation errors common when obtaining information from different sources.

A proposed exception to Option D is the exclusion of import and export data in favour of retaining the data sharing arrangements already in place between the ABS and APS. The inclusion of import and export data in the mandatory reporting scheme is likely to lead to excessive provider burden as there are already significant reporting requirements in place by DIBP for importers and exporters. In addition, the duplicate collection of import and export data through the APS is not in line with the Whole of Government 'Report once, use many times' direction for businesses reporting to government. The duplicate publication of data through different aggregation methods could also lead to confidentiality issues, as users may be able to use both sets of outputs to deduce confidential

⁴ ABS' quarterly Business Indicators and annual Economic Activities surveys would still survey organisations involved in mandatory reporting. However, a central collection through the APS would provide data items that could minimise other reporter burden such as the collection of quarterly mining commodity volumes.





information. In this case arrangements would have to be made between agencies to ensure confidentiality is maintained.

Who Should Report?

Obligation to report

The ABS supports applying the legal obligation for reporting to the owner of petroleum. Where reporting could be more accurately completed by another party (eg. managing entity) the owner should be allowed to arrange for the alternative party to complete and submit the report on their behalf. Ultimately however, it should be the responsibility of the owner to ensure that accurate reporting occurs.

Reporting threshold

ABS would prefer there was no minimum threshold for reporting, although encourage replacing direct collection of data below the threshold level with alternate data sources where possible (such as through the ATO excise data or DIBP customs data).

Direct importers

Direct importers should only be exempt from reporting on their sales and production if their data can be replaced with the DIBP customs data.

What Data Should Be Reported?

Types of petroleum products and substitutes

The ABS would prefer that the APS collection be organised around the framework of a single product classification. The [Industry of Origin Product Classification \(IOPC\)](#) is preferred, however there are a number of international classifications which would also be suitable and for which concordance to IOPC is available (such as the [System of Environmental-Economic Accounting \(SEEA\)](#)).

The types of petroleum products and substitutes currently published in the APS should be maintained. Essential data items currently used from the APS report include:

- Production and refinery production estimates at the Australia level, all categories;
- Sales of automotive gasoline, specifically including the breakdown by fuel type; and
- End of month stocks of petroleum, all categories.

In addition to the aggregates currently published in the APS report, ABS would prefer all sub-category level data listed in Attachment B2 of the Consultation paper to be published, or provided to the ABS under a confidential arrangement to assist in compiling estimates. These would be of specific use to the National Accounts quarterly and annual publications, the I-O tables at product level, and the Energy Accounts supply and use of energy products. Currently estimates are compiled for the I-O tables for the following petroleum products:





- Crude oil;
- Liquefied natural gas (excluding natural gas not liquefied)
- Natural gas (excluding natural gas purposed for LNG)
- Liquefied petroleum gas produced at refineries;
- Liquefied petroleum gas from the well head (i.e. naturally occurring);
- Kerosene;
- Automotive petrol;
- Gasoline refining or blending;
- Motor spirit (including aviation spirit);
- Petro diesel;
- Gas oil or fuel oils n.e.c. (excluding motor spirit and kerosene);
- Brake and hydraulic fluid;
- Secondary feedstocks and topped/enriched crude for use in further refining and manufacturing (including bituminous feedstocks; excluding scrap waste); and
- Lubricants manufactured from petroleum.

Other variations to the current APS publication would be to replace production data by basin with estimates by state. The current publication does not map directly to the State/ Territory basis required by AIS for two main reasons:

1. Basins can be physically located across jurisdictions (for example the Cooper-Eromanga is physically located in three jurisdictions - mainly SA and QLD but also partly NT).
2. Several basins are currently omitted (such as CSM production from the Camden field in NSW) or are combined (such as the Gippsland and Otway basins in VIC, which are combined with the Bass basin in TAS), presumably for confidentiality reasons.

Publication of production data by state would better suit the geographical data requirements of the ABS while maintaining confidentiality.

Natural gas

The Consultation paper classifies Natural Gas Liquids (NGLs) as in scope of the mandatory reporting requirements to the IEA. As liquefied fuels such as LNG and Liquefied Petroleum Gas (LPG) are the result of either a transformational process or by product of natural gas processing, it is essential to capture the whole extraction and transformation of NGLs. The ABS would support capturing both natural gas extraction (in the non-liquefied state) and the resulting NGLs. Accuracy for reporting NGLs to the IEA would be benefited by a comprehensive coverage of all gas extraction.

In addition, there are issues of undercoverage in the APS' estimates of the gas extraction industry. As such the ABS supports a parallel voluntary reporting methodology for gas statistics, and would prefer to make data reporting for gas statistics mandatory. The concerns with a parallel voluntary reporting scheme is that it exposes users to the risk of data quality degradation over time, especially in periods of rapid growth as new players enter the market and survey coverage is unable to be maintained. This phenomenon has already been observed in the current APS voluntary reporting scheme, with resulting quality decreases in the published reports, especially for natural gas.





To support the production of robust statistics, a more detailed breakdown of natural gas than that currently published in the APS is a high priority for several areas of the ABS. The preferred product categories are:

- Liquefied natural gas (preferably distinguished between LNG from natural gas and from coal seam gas);
- Natural gas (in the gaseous state) (excluding natural gas purposed for LNG production);
- Liquefied petroleum gas from the well head;
- Coal seam gas (excluding coal seam gas purposed for LNG production); and
- Other naturally occurring gases.

Residential gas usage statistics by state as well as use of kerosene and heating oil at the national level are currently used as part of the compilation of household consumption estimates. Maintaining collection of these data items is preferred.

Types of activity

The ABS generally supports the proposals made in the Consultation paper to include production, refining (including recycling), sales, and end of month stockholdings under the mandatory reporting schemes. As discussed above, the ABS does not support including imports and exports in mandatory reporting as it would impose unnecessary provider burden on importers and exporters who already face mandatory DIBP reporting requirements. Stocks on water should be included under mandatory reporting.

The approach currently used in the APS to measure consumption/sales is supported, with a preference for expanding the approach to separately capture retail sales. The currently available data sources (including the ACCC mentioned in the Consultation paper) are either not available in time for compilation, or are not available on a quarterly basis. Any expansion of available statistics in the APS to capture retail sales separately would be of benefit to the accuracy of the household consumption estimates in the National Accounts.

Additional data items

The additional of several data items to be collected and published in the APS (or provided to the ABS under a confidential arrangement) would assist in the compilation and confrontation of estimates:

- Current price value data of production and sales (or monthly pricing data which would allow current price values to be calculated)
- State breakdowns of petroleum stocks
- Storage and transport losses
- Extraction losses for indigenous production of all petroleum products





How Should Data Be Reported?

The ABS supports a standard template to assist in achieving consistency in data reporting both between entities and over-time. For this same reason it would be preferred for a single monthly reporting obligation to be maintained, rather than through supplementation with additional quarterly and annual reporting. A monthly reporting obligation would also allow for revisions to previous months (in response to late or incorrect forms) and result in the maintenance of one time series for consistency and simplicity.

ABS also supports the use of electronic data collection to improve the quality, speed and efficiency of data collection and improve the respondent experience. Where possible, forms should be tailored to each reporter for ease of response while maintaining consistency across the collection.

Data Sharing

The ABS supports increased data sharing between agencies in order to reduce reporting burden and streamline data collection. However with the caveat that a minimum statistical quality must be maintained and that strict controls on the access to and use of confidential or commercially sensitive data are established. Data which needs to be confidentialised for public availability should be made available to the ABS in original form, i.e. prior to any aggregation such as across jurisdictions.

National Offshore Petroleum Titles Administrator (NOPTA)

The ABS supports replacing offshore production data with data already collected by NOPTA in order to minimise duplicate reporting obligations, contingent on establishing a suitable data arrangement between the Department of Environment and Energy and NOPTA. A suitable data arrangement would include the sharing of data and would also ensure product categories and sub-categories collected align with the needs of IEA reporting and with those published in the APS.

It is the ABS' understanding that the Joint Petroleum Development Area (JPDA) and Greater Sunrise (GS) gas and condensate fields are excluded in collections by NOPTA. The JPDA area supplies a significant proportion of LNG production for Australia and is a major contributor of condensate and LPG for the Northern Territory⁵. The ABS supports the use of NOPTA data where mandatory reporting coverage is available, however requests that the proposed legislation also include the offshore JPDA and GS areas.

Excise and customs data held by the Australian Taxation Office

It is not recommended that sales reporting be replaced with the use of excise and customs data held by the ATO as the excise data does not contain breakdowns by fuel type. The loss of product detail would impact the ability to use the relative price weights of gasoline products in National Accounts estimates and in the Energy Accounts. Volumetric data from customs needs improvement to be fit for purpose. Furthermore, any possibility of receiving data in a less timely manner due to the ATO processing timetable would impact the processing timelines of the National Accounts.

⁵ See: [Joint Petroleum Development Area and Greater Sunrise](#)





Appendix A: Use of the Australian Petroleum Statistics report in the ABS

Data Input Name: Australian Petroleum Statistics (Department of Energy and Environment)

ABS Estimate	What components does the data inform?	Detail around specifics of what the data informs in ABS' estimates	ABS Output
Energy Accounts	Monthly stocks of petroleum	Physical estimates and inventory changes for petroleum products. Physical projections of petroleum supply and use for benchmarking exercises.	Inventory changes in ABS <i>Energy Account, Australia</i> physical and hybrid supply-use tables; ABS <i>Energy Account</i> projections for preliminary use in the National Accounts Supply Use Benchmarks. current prices (\$m) and physical quantities (PJ)
National Accounts, Gross Domestic Product	Oil and gas extraction Petroleum and coal product manufacturing	Monthly volume outputs of (a) crude oil and condensate, in megalitres; (b) ethane, in millions of cubic metres; and (c) natural gas, in millions of cubic metres. Volume measures are obtained by revaluing quantity data for a range of petroleum products published by APS.	Industry gross value added published in <i>Australian National Accounts: National Income, Expenditure and Product</i> chain volumes (\$m)
National Accounts, Gross Domestic Product	Sales of petroleum products	Monthly volume of sales of each type of automotive gasoline (unleaded, premium unleaded, proprietary brand, ethanol blended fuel); aggregated to quarterly, are used as an indicator for household expenditure on fuel.	Household final consumption expenditure published in <i>Australian National Accounts: National Income, Expenditure and Product</i> . current prices (\$m) and chain volumes (\$m)
National Accounts, State Accounts	State and Territory breakdowns	State and Territory estimates provided by the APS are used to assist in breaking down National aggregates to State estimates.	Production and expenditure data published in <i>Australian National Accounts: State Accounts</i> .

