



Australian Government
Productivity Commission

Review of
Regulatory Burden on
the Upstream Petroleum
(Oil and Gas) Sector

Productivity Commission
Research Report

April 2009

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The Productivity Commission

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

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Foreword

In 2008, the Council of Australian Governments (COAG) identified the upstream petroleum sector as one of many ‘hotspot’ areas where overlapping and inconsistent regulation threatens to impede economic activity, and agreed that the Productivity Commission should undertake a review.

The focus of the Commission’s report is on measures that have the potential to reduce *unnecessary* burdens on the upstream oil and gas sector — in other words, regulatory burdens that can be removed without compromising desirable outcomes, such as relating to resource management, the environment, heritage, development, land access and occupational health and safety.

The report identifies significant unnecessary costs from delays and uncertainties in obtaining approvals, duplication of compliance requirements, and inconsistent administration of regulatory processes. The Commission finds that these burdens could be reduced through new institutional arrangements — principally the establishment of a national offshore regulator — as well as implementation of best practice regulatory principles in all jurisdictions.

In conducting its review, the Commission has drawn on information from submissions and consultations with a range of participants from industry and government. The Commission is grateful to the many people who have taken the time to contribute to this study, including those who provided feedback on the draft report.

The study was overseen by Commissioner Philip Weickhardt, with a staff research team from the Commission’s Melbourne office.

Gary Banks AO
Chairman

April 2009

Terms of reference

Review of Regulatory Burden on the Upstream Petroleum (Oil and Gas) Sector

Background

In its report on *‘Annual Review of Regulatory Burdens of Business: Primary Sector’*, the Productivity Commission recommended a broad review of the whole Australian onshore and offshore petroleum regulation framework.

Most of Australia’s petroleum resources are in Commonwealth waters and are brought onshore for processing in State or Territory jurisdictions. As such, many petroleum projects cross numerous jurisdictions. Every step in the exploration, development and production of petroleum is regulated by various governments and regulatory agencies. For many petroleum projects, there are often duplicated requirements for a given activity for each of the jurisdictions involved.

This study will consider Australia’s framework for upstream petroleum regulation and consider opportunities for streamlining regulatory approvals, providing clear timeframes and removing duplication between jurisdictions.

Scope of the review

The Productivity Commission is requested to undertake a research study on the regulation of crude oil and natural gas projects that involve more than one jurisdiction (but not the regulation of subsequent refining, distribution and wholesaling/retailing activities, coal seam methane or any other mineral resource). In undertaking the study, the Commission is to:

- assess the impact of the current regulatory framework on the international competitiveness and economic performance of Australia’s petroleum sector and on the performance of the economy as a whole;
- report on regulatory impediments to improved performance, including inconsistencies and duplication across jurisdictions, and ways in which governments in Australia could address them; and
- consider options for a national regulatory authority (for example, along the lines of the National Offshore Petroleum Safety Authority model) to manage all regulatory approvals for the upstream petroleum industry as a means of addressing issues of regulatory duplication and inconsistencies.

In conducting the study and providing information to reduce unnecessary regulatory burdens on the upstream petroleum sector, the Commission is to:

- seek public submissions and consult with business, government agencies and other interested parties;
- have regard to any other current or recent reviews commissioned by Australian governments affecting the regulatory burden faced by businesses in the upstream petroleum sector; and
- have regard to the underlying policy intent of government regulation on the upstream petroleum sector.

The Commission is to report within 12 months of commencing the study and the Commission's report will be published and submitted to all Australian governments for consideration.

CHRIS BOWEN

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Abbreviations and explanations

Abbreviations

ABARE	Australian Bureau of Agricultural and Resource Economics
ALRA	<i>Aboriginal Land Rights Act 1976 (Cwlth)</i>
APPEA	Australian Petroleum Production and Exploration Association
CCS	Carbon capture and storage
CMATS Treaty	Certain Maritime Arrangements in the Timor Sea Treaty
COAG	Council of Australian Governments
Cwlth	Commonwealth
DA	Designated Authority
DEWHA	Department of the Environment, Water, Heritage and the Arts (Australian Government)
DoIR	Department of Industry and Resources (WA Government)
DMP	Department of Mines and Petroleum (WA Government)
EAF	Environmental Assessors Forum
EEO	Energy Efficiency Opportunities
EIA	Environmental impact assessment
EP Act	Environment Protection Act
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)</i>
ERA	Economic Regulation Authority (WA Government)
ESD	Ecologically sustainable development
GDP	Gross domestic product
ILUA	Indigenous land use agreement
IUA	International Unitisation Agreement for Greater Sunrise

JA	Joint Authority
JOA	Joint Operating Agreement
JPDA	Joint Petroleum Development Area
LNG	Liquefied natural gas
LPG	Liquefied petroleum gas
MCMPR	Ministerial Council on Mineral and Petroleum Resources
MoU	Memorandum of Understanding
NES	National Environmental Significance
NGER Act	<i>National Greenhouse and Energy Reporting Act 2007</i> (Cwlth)
NOPR	National Offshore Petroleum Regulator
NOPR-CW	National Offshore Petroleum Regulator in Commonwealth Waters
NOPSA	National Offshore Petroleum Safety Authority
NPV	Net present value
NNTT	National Native Title Tribunal
NTA	<i>Native Title Act 1993</i> (Cwlth)
OCS	Offshore Constitutional Settlement
ODAC	Office of Development Approvals Coordination
OECD	Organisation for Economic Cooperation and Development
OHS	Occupational health and safety
OPA	<i>Offshore Petroleum Act 2006</i> (Cwlth)
OPGGSA	<i>Offshore Petroleum and Greenhouse Gas Storage Act 2006</i> (Cwlth)
PC	Productivity Commission
PDO	Plan for Development and Operations
PIRSA	Primary Industries and Resources South Australia
PRRT	Petroleum Resource Rent Tax
PSLA	<i>Petroleum (Submerged Lands) Act 1967</i> (Cwlth)
RET	Department of Resources, Energy and Tourism (Australian Government)
RIS	Regulatory Impact Statement
RTN	Right to negotiate

UNCLOS	United Nations Convention on the Law of the Sea
WACC	Weighted average cost of capital
WOMP	Well Operations Management Plan

Explanations

Billion	The convention used for a billion is a thousand million (10 ⁹).
Findings	<i>Findings in the body of the report are paragraphs highlighted using italics, as this is.</i>
Recommendations	<i>Recommendations in the body of the report are highlighted using bold italics with an outside border, as this is.</i>

Glossary

Appraisal well	A well or wells drilled to follow up a discovery and evaluate its commercial potential.
Barrel	Measure of crude oil equal to 42 US gallons, 35 Imperial gallons or 159 litres.
Basin	A dip in the earth's crust usually filled or being filled with sediment.
Coastal waters	The area between the territorial sea baseline (generally situated at the lowest astronomical tide line along the coast) and the line that is three nautical miles seaward of the territorial sea baseline as well as any waters landward of the baseline that are outside the limits of the States and the Northern Territory.
Commonwealth waters	The area between the outer limit of the coastal waters (three nautical miles from the territorial sea baseline) and the outer limit of the continental shelf.
Completion	The final preparations to ready a well for production.
Condensate	Hydrocarbons that are gaseous in a reservoir, but condense to form a liquid as they rise to the surface where the temperature is typically lower.
Continental shelf	The area extending from the outer limit of the territorial sea (12 nautical miles from the territorial sea baseline) for up to 200 nautical miles from the territorial sea baseline (subject to boundary delimitations with other countries). It can extend further if the physical continental shelf continues beyond 200 nautical miles in accordance with the United Nations Convention on the Law of the Sea.
Crude oil	Oil produced from a reservoir after associated gas has been removed.
Designated Authority (DA)	The Designated Authority for an offshore area of a State or Territory is constituted by the responsible State or Territory Minister. DA may also be used to describe the State or Territory government officials who assist the DA and have powers delegated to them by the DA.

Designated coastal waters	<p>Coastal waters and any area between the territorial sea baseline and the coastline of the State and Territory that was, immediately before the commencement of the relevant State or Territory petroleum laws, the subject of an exploration permit under the repealed <i>Petroleum (Submerged Lands) Act 1967</i> (Cwlth) (when such an area no longer has an exploration permit, retention lease or production licence under State or Territory petroleum laws, it is no longer part of designated coastal waters).</p> <p>This term is used for the purposes of Part 4.8 of the <i>Offshore Petroleum and Greenhouse Gas Storage Act 2006</i> (Cwlth), relating to the National Offshore Petroleum Safety Authority.</p>
Downstream	<p>Industry operations beyond the initial extraction and processing stages including refining and marketing — opposite to upstream.</p>
Exclusive Economic Zone (EEZ)	<p>The area extending from the outer limit of the territorial sea (12 nautical miles from the territorial sea baseline) for up to 200 nautical miles from the territorial sea baseline (subject to boundary delimitations with other countries).</p>
Exploration licence	<p>A licence to explore for oil or gas in a particular area issued to a company by the governing jurisdiction.</p>
Hydrocarbons	<p>Compounds containing only the elements of hydrogen and carbon. They may exist as solids (such as coal), liquids (such as crude oil) or gas (such as natural gas).</p>
Internal waters	<p>Australia’s internal waters are the waters on the landward side of the territorial sea baseline. These waters can be divided between internal waters of the States and Northern Territory and internal waters of the Commonwealth.</p> <p>The internal waters of a State or Territory are those waters that fall within the Constitutional boundaries of that State or Territory, which may include bays, gulfs, estuaries, rivers, creeks, inlets, ports or harbours.</p> <p>All other internal waters are Commonwealth internal waters. For regulatory purposes they are treated as coastal waters.</p>

Joint Authority (JA)	The Joint Authority of an offshore area of a State or Territory is constituted by the responsible State or Territory Minister and the responsible Commonwealth Minister. The term JA may also be used to describe the Commonwealth and State or Territory officials where those officials assist the JA.
Liquefied natural gas (LNG)	Natural gas that has been cooled to below 160 degrees Celsius thereby rendering it a liquid. This reduces its volume by over 600 times, making storage and transportation viable.
Liquefied petroleum gas (LPG)	A mixture of light hydrocarbons which is gaseous at normal temperatures and is liquefied by pressure for transport purposes. Consists mainly of propane and butane.
LNG train	A major processing facility, typically costing many billions of dollars. It is typically comprised of refrigeration stages (comprising compressor, condenser, pressure-expanding valve and evaporator) and purification stages to liquefy natural gas to form LNG. An LNG plant may comprise a number of LNG trains.
Natural gas	A mixture of light hydrocarbons (mainly methane) found naturally in the Earth's crust, often in association with crude oil.
Offshore area	The area extending seaward from the low tide mark on the coastline to the outer limit of the continental shelf. That is, it includes Commonwealth waters, coastal waters and some internal waters. (For the purposes of the <i>Offshore Petroleum and Greenhouse Gas Storage Act 2006</i> (Cwlth), the offshore area is defined as Commonwealth waters only.)
Onshore area	The area within the limits of a State or Territory including internal waters that are landward of the low tide mark, such as rivers and creeks.
Production	Phase of petroleum industry that deals with bringing the well fluids and gases to the surface and separating them.
Production licence	Licence to produce oil or gas in a particular area issued to a company by the governing state authority.
Seismic survey	A method of determining the sub-surface features by sending sound waves into the various buried rock layers in the earth and measuring the time they take to return to the surface.

Territorial sea	The area between the territorial sea baseline and the line that is 12 nautical miles seaward of the territorial sea baseline.
Territorial sea baseline	Generally is the line of lowest astronomical tide along the coast, but it also encompasses straight lines across bays (bay closing lines), rivers (river closing lines) and between islands, as well as along heavily indented areas of coastline (straight baselines) under certain circumstances.
Upstream	The upstream petroleum (oil and gas) sector encompasses exploration and appraisal, development and construction, and production. For natural gas and LPG, the definition of upstream includes processing and delivery to export terminals or domestic gas transmission pipeline in take.