

# chapter 7

## Key Investment Settings

### 7.1 INTRODUCTION

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For decades, in the context of steep competition for globally mobile capital, successive South Australian governments have concluded that efficient, effective and competitive investment frameworks for minerals and energy resources are critical comparative advantages for the State.

This chapter will describe issues related to:

- The provision of pre-competitive data and data analysis to prospectively lead investors to reach informed decisions to invest in South Australian projects;
- The granting and tenure of exclusive petroleum licences that assure entitlements to explore for, develop, produce, process and transport gas to markets;
- State royalties on petroleum (including natural gas, petroleum gas liquids and liquid petroleum); and
- Federal taxes on petroleum with an implication for unconventional gas production.

Certain matters interlocked with regulation are discussed more fully in this chapter than in Chapter 5 (Regulation) and Chapter 6 (Supply Chains) including:

- The protection of privately owned intellectual property, as far as is practical, taking into account the principle of public interest in both competitive markets and transparency.

In this regard, the South Australian government policies are set to remain a trusted custodian of commercial-in-confidence information that is required to be lodged in licence applications, and in reporting on regulated licence activities;

- The term of time for petroleum licence tenure in South Australia; and
- Recognition that trusted, efficient, and effective regulation is an essential ingredient for high performance investment attraction. Expedient land access with community support depends heavily on the high quality delivery of intelligent policies, targeted programs, and services/products that address market failures. This is not possible without capable and committed people.

### 7.2 Metrics for Investment Setting Performance

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#### 7.2.1 One-Stop-Shop for Upstream Petroleum Operations in South Australia

The Australian Productivity Commission's *Review of Regulatory Burdens on the Upstream Petroleum (Oil and Gas) Sector* (2009<sup>1</sup>) concluded that one-stop-shops are the most efficient regulatory approach when well managed without regulatory capture.

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<sup>1</sup> Available at: [www.pc.gov.au/projects/study/upstream-petroleum](http://www.pc.gov.au/projects/study/upstream-petroleum)

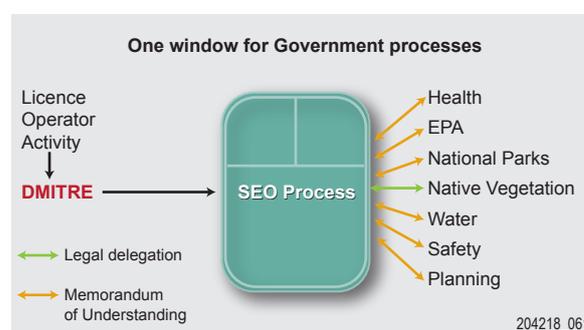
Amongst recommendations, the Productivity Commission said “Establish lead agencies:

- For all relevant areas (for example, resource management, environment and heritage)....with appropriate governance, experience in South Australia suggests that such an agency can achieve an appropriate balance between enforcing legislative provisions and expediting approvals.
- Under a lead agency....approval of most, if not all, aspects ...would rest with one designated agency....It would maintain control of the process, and in most cases, would consult with other relevant agencies, ... rather than formally refer the application to a separate agency for assessment..... Where impacts are considered to be significant, a formal referral may take place. By maintaining control of the approval process the lead agency approach is able to .... minimise time delays. ...South Australia is widely seen as a model for other jurisdictions to emulate.”

In addition, in comparing relative efficiency and effectiveness of various Australian petroleum legislative frameworks, the Australian Productivity Commission report quotes:

- “Industry participants’ feedback suggests that South Australia has a relatively straightforward regulatory system, which could be considered a benchmark for other jurisdictions.”
- “...the South Australian Petroleum Act 2002 is simple to follow and administer.” “It is noted that issues of regulatory capture do not appear to have emerged in South Australia. PIRSA has a clear mandate, clear regulatory responsibilities, good processes to engage with other agencies, and checks and balances that apply in high risk situations.”

The August 2012 edition of RESOURCESTOCK concluded that while all states and territories in Australia provide what industry sources call an excellent “pre-approval” regime – where state geological data is readily accessible to potential explorers – there is a consensus that SA carries the honour of being the most resources-friendly state. If the deposits were the same geologically and you could choose a state, most would say to move to South Australia. In this article, Reg Nelson (Managing Director - Beach Energy) said it was the quality of the people running DMITRE that differentiated the state and put it a head above the rest.



**Figure 7.1** Nature of one window (one-stop-shop) for approval processes for upstream petroleum operations in South Australia.

In South Australia, the Department for Manufacturing, Innovation, Trade, Resources and Energy (DMITRE) act as a one-stop-shop for the upstream petroleum industry through administration of the Petroleum and Geothermal Energy Act 2000 (PGE Act). Refer to Chapter 5 (Regulation) for a description of South Australia’s approach to enable a lead agency, a one-stop-shop (managed by DMITRE) to attain co-regulatory approvals in parallel rather than in series. Figure 7.1 illustrates this concept.

## 7.2.2 International Benchmarking for Performance

International investment frameworks for upstream petroleum are benchmarked each year by the Fraser Institute’s Global

2 The SA Petroleum Act 2000 was renamed the Petroleum and Geothermal Energy Act 2000 in October 2009.

Petroleum Survey<sup>3</sup>. The 2012 Survey assessed 18 potential investment barriers which can be grouped into the following sequential (in decision-making) factors that influence investment decisions:

- Prospectivity for find-size and type (oil versus gas versus wet gas, etc);
- Access to land (via application, farm-in, merger/acquisition, etc);
- Access to, and quality of databases (through public record, or on commercial terms);
- Trade barriers (such as local or national reservations on inter-state or international sales);
- Access to markets (where small-in-scale demand, or regulated monopolies may thwart competition);
- Fiscal regime e.g. royalties and tax;
- Up-front certainty of regulations and special conditions for operations within lands of high social, environmental and/or economic values e.g. in, and in proximity to: built-up areas, parks, reserves (such as the Innamincka and Strzelecki Reserves), protected areas (such as the Woomera Protected Area), onshore and marine parks; areas of complimentary land-use; and areas where heritage and Native Title values exist;
- Clarity and timeliness of licensing and activity approval processes;
- Quality and trustworthiness of the implementation of regulatory regimes;
- Cost of regulatory compliance e.g. is regulation efficient in meeting objectives;
- Frequency and level of consultation leading to changes to legislation and regulations;
- Quality, efficiency and capacity of infrastructure;

- Workforce skills and capacity (and how bottlenecks are allowed to be overcome); and
- Employer-labour relations (that are almost always expected to be evolutionary).
- A new question on corruption of government officials.

The Fraser Institute's annual survey reflects the views of international petroleum explorers, including members of the Australian Petroleum Production & Exploration Association (APPEA) and the South Australian Chamber of Mines and Energy (SACOME), and ranks Federal agencies (Geoscience Australia and the Department of Resources, Energy and Tourism, DRET), Australian states and the Northern Territory, in a total of 147 international jurisdictions.

South Australia was rated second in the Oceania Region in the 2012 Fraser Institute survey of the upstream petroleum industry in 2012, up from third last year. SA rated 29th in the world, down from 21st last year, but 11 new jurisdictions were added to the survey this year. In the 2009 and 2010 surveys, South Australia ranked first in the region.

South Australia and all other Australian jurisdictions have never previously had scores in the "Would not invest due to this criterion" (i.e. 4) category. This year, South Australia and all other Australian jurisdictions scored in this category for Fiscal Terms and Taxation regime. SA recorded no "Would not invest" (i.e. 5) scores, in common with other Australian jurisdictions.

The report includes the following comments on SA made by respondents:

- "Best organised. Only jurisdiction that anticipates problems. Most competent and knowledgeable staff". "
- Ease of dealing with government departments and acquiring the necessary information".

<sup>3</sup> 2012 survey available at [www.fraserinstitute.org/publicationdisplay.aspx?id=18469&terms=Global+Petroleum+Survey++2012](http://www.fraserinstitute.org/publicationdisplay.aspx?id=18469&terms=Global+Petroleum+Survey++2012)

## 7.3 Who Sets Investment Framework Factors?

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Factors determined at the Federal level of government in Australia (in consultation with the States and Territories through fora of the Council of Australian Governments, COAG) include:

- Taxes (on profits including company tax, petroleum resource rent tax, and goods and services tax);
- Land access where Native Title exists pursuant to the Commonwealth *Native Title Act 1993* (NT Act). For some additional details, refer to Chapter 5 (Regulation);
- Conditions for land access where thresholds are reached to trigger the Commonwealth *Environmental Protection, Biodiversity and Conservation Act 1999* (EPBC Act<sup>4</sup>). For some additional details, refer to Chapter 5 (Regulation);
- International treaties affecting terms of international trade;
- Terms for foreign investment in Australia;
- Immigration;
- Terms for Australia's national electricity markets;
- Terms for a national greenhouse gas tax (through a fixed price emissions trading scheme) that will transition to a floating price emissions trading scheme

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<sup>4</sup> In 2011, the Federal Government set plans to create an interim Independent Expert Scientific Committee (IESC) that was to inform rulings pursuant to the EPBC Act. [Proposed amendments to the EPBC Act](http://www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=rrat_ctte/epbcwater_2011/report/report.pdf) to formalise a link between decision making under the EPBC Act and advice from the IESC did not attain support in the Senate in 2012 (for details, visit: [www.aph.gov.au/Parliamentary\\_Business/Committees/Senate\\_Committees?url=rrat\\_ctte/epbcwater\\_2011/report/report.pdf](http://www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=rrat_ctte/epbcwater_2011/report/report.pdf)). The interim IESC has since formed, and to end March 2012, a few States (including South Australia) have signed a National Partnership Agreement and thus, agreed to take account of advice from the IESC in relation to approvals for coal seam gas and large coal mining operations. For additional details – visit: <http://www.environment.gov.au/coal-seam-gas-mining/index.html>

in 2015 under the provisions of the Commonwealth's *Clean Energy Act 2011*;

- Terms for national industrial relations;
- Funding national programs for health, education, welfare, etc; and
- National security and most generally, national legislation that often overlaps in part or in total with State- and Territory-based legislation.

Factors that Australian State and Territory Governments influence include:

- The provision of information and expert advice;
- Local regulatory regimes (including security of title and user-pays fees);
- Access to land;
- Access to infrastructure;
- Royalty regimes; and
- The interaction of State and Federal legislation (such as the Commonwealth Government's NTA and EPBCA).

The provision of regulation is covered in Chapter 5 (Regulation). Refer to Chapter 5 (Regulation) for a description of South Australia's approach to enable a lead agency, a one-stop-shop (managed by DMITRE) to attain co-regulatory approvals in parallel (rather than in series). Figure 7.1 illustrates this concept.

The delivery of information to entice and support investment is covered in Chapter 6 (Supply-Chains). Other factors are elaborated in the proceeding sections of this chapter.

## 7.4 Foreign Investment

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Australia's foreign investment policy is designed to encourage investment consistent with the interests of the Australian community. The Government recognises the substantial contribution foreign investment has made, and will continue to make, to

the development of Australia's industries and resources. The policy, together with the *Foreign Acquisitions and Takeovers Act 1975* (FAT Act), provides a framework for Government review of foreign investment proposals.

The FAT Act and foreign investment policy apply to Australian companies and business assets across all industry sectors, including the petroleum sector. Foreign investment proposals are normally approved subject to them not being considered contrary to the national interest. Foreign companies do not need to seek approval under either the FAT Act or the policy before lodging an application for the award of petroleum exploration acreage.

Foreign Investment Review Board (FIRB) approval is not required for the grant of exploration acreage and the subsequent development of any petroleum discovery. However, foreign companies should notify FIRB in relation to the establishment of a new business after an exploration permit is granted where the investment exceeds AUD 10 million. For all farm-in/farm-out activity, equity changes, or acquisition of existing interests in exploration permits, production licences and retention leases and/or production facilities, notification may be required. For more information refer to [www.firb.gov.au/content/default.asp](http://www.firb.gov.au/content/default.asp)

## 7.5 Access to Land with Special Natural, Social and Economic Value

The long-term viability of the upstream petroleum industry is strongly reliant on maximising access to land for undertaking exploration and development activities. Fundamental to this is the need to establish and maintain community confidence in both the industry and the regulatory regime governing the industry. The regulatory regime needs to be responsive to community expectations to attain such confidence. The intent of the PGE Act is therefore to gain

and sustain the trust of all stakeholders in both the ability of the regulator to protect the stakeholders' interests, and the ability of the resource industries to conduct activities in ways that are compatible with the sustainability of potentially affected natural, social and economic systems. In this regard, the PGE Act only authorises activities that entail appropriate protection of the environment, social values and existing land uses. Refer to Chapter 5, in particular, Figure 5.1 and 5.2 to understand the approvals process in South Australia for (a) exploration and production operations and (b) petroleum transmission pipelines. Details of the objectives of the NT Act and EPBC Act are also covered to some extent in Chapter 5 (Regulation).

There are two essential benchmarks that need be satisfied for minerals and energy resources to meet criteria for land access. These are:

- That all significant risks to social, natural and economic environments are reduced to as low as reasonably practical (ALARP); and
- That operations meet community expectations for net outcomes.

Where case-by-case assessments by regulators determine activity-specific and location-specific operations are objectively expected lead to outcomes that fail to meet community expectations for net outcomes, than land access will not be approved. Details of relevant approval processes are covered in Chapter 5 in this Roadmap.

### 7.5.1 Protected Areas

Areas with special natural, social or economic value, including areas proclaimed for protection or reserved for conservation purposes in South Australia include those administered by the Department of Environment, Water and Natural Resources under the *National Parks and Wildlife Act 1972*, *Crown Land Management Act 2009*, *Native Vegetation Act 1991* and *Wilderness Protection Act 1992*. Approximately 74 percent of onshore protected areas

allow access for mineral, geothermal and petroleum exploration and development. While the legislation is designed for conservation purposes, there are provisions for joint proclamations and regional reserves both of which allow access for mineral and petroleum exploration and development. Where access is excluded, this excludes surface and subsurface access.

Other parts of South Australia with special natural values and unique management arrangements include but are not limited to:

- Marine Parks and adjacent areas under the *Marine Parks Act 2007*;
- the Adelaide Dolphin Sanctuary under the *Adelaide Dolphin Sanctuary Act 2005*;
- the Arkaroola Protection Area under the *Arkaroola Protection Act 2012*;
- the River Murray Protection Area under the *River Murray Act 2003*;
- Prescribed water resources under the *Natural Resources Management Act 2004*; and
- Vegetation Heritage Agreement areas under the *Native Vegetation Act 1993*.

Refer to Chapter 5 in this Roadmap for details of how co-regulation is undertaken to abide by the objectives of all legislation, and in particular how instruments of the *Petroleum and Geothermal Energy Act 2000*, Statements for Environmental Objectives (SEOs), require all petroleum operations to protect natural, social and economic environments.

### 7.5.2 Woomera Prohibited Area

The Woomera Prohibited Area (WPA) covers an area of 127,000 square kilometres approximately 450 km NNW of Adelaide. The WPA has been declared a Prohibited Area under Part VII of the Commonwealth Defence Force Regulations 1952 and is used for 'the testing of war material' under the control of the Royal Australian Air Force. The Director Woomera Test Range has authority, on behalf of the Commonwealth, to control

all access to the WPA. All persons wishing to access any part of the WPA (Stuart Highway excluded) must obtain prior approval.

In addition to obtaining an appropriate Exploration Licence and activity approval under the PGE Act, companies considering undertaking exploration in this area also need to:

- sign a 'Deed of Access' between the holder of the exploration licence(s) and the Commonwealth of Australia, and
- request permission to access the WPA for each exploration activity.

## 7.6 Licensing to Attract Competitive Exploration and Subsequent Supply-Side Competition

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South Australia's PGE Act enables competitive work program bidding, competitive cash bidding and over the counter applications. Under current limits to Competitive Tender Regions<sup>5</sup> competitive bidding is required in the Cooper-Eromanga and Otway basins. Over-the-counter applications prevail elsewhere, e.g. in frontier basins yet to host commercial, petroleum production, where greater exploration uncertainties translate to higher risks. For further details, refer to Alexander and Sansome (2012<sup>6</sup>). The criteria for ranking and selecting a winner from amongst competitive bids are published when bid block areas and final dates for applications are defined. The one instance of cash bidding in South Australia failed to attract any bids. Over-the-counter bids need to include at least one exploration well in the five-year work program, and at least the first year work

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<sup>5</sup> Cooper Basin blocks C02001 A through F were offered on the basis of the highest competitive combination of cash and work program bidding. For details – see: [www.pir.sa.gov.au/petroleum/licensing/new\\_acreage\\_releases](http://www.pir.sa.gov.au/petroleum/licensing/new_acreage_releases)

<sup>6</sup> Alexander, E.M. and Sansome, A., 2012. The changing face of the SA Cooper Basin 1998-2012. APPEA Journal.

program is deemed to be guaranteed on grant, and subsequent licence year work programs become guaranteed upon entry into any licence year. Easily accessible technical information and legislated requirements for PGE Act licences are publicly available ahead of the closing date for applications. Qualifying applicants must have the financial capacity and technical competence to be compliant licensees.

It is proposed that consideration is given towards establishing online tenement applications for both acreage release bidding and over the counter applications, as well as other types of licence in future to further streamline processes.

## 7.7 Licence Tenure for Unconventional Resource Plays

Licensing needs to be pragmatic to the desired outcomes which are: efficient, successful exploration; material reserve bookings; and subsequent efficient, expeditious and rewarding production. Hence, rules for licence tenure in South Australia under the PGE Act are designed to either (1) require, or (2) stimulate a competitive pace of seismic acquisition (to efficiently locate wells) and then, exploration, appraisal and development drilling. The rules are intended to avoid economic waste on the road to profitable production. All licensees progressively surrender areas after a term of tenure.

For unconventional gas plays in particular, the pace of acreage turn-over should balance the public's interest in competition and the investor's interest in security of title in the context of competitive contracting of sales gas to domestic and international gas markets.

Exploration, discovery and appraisal to book sufficient reserves in a new unconventional gas play to underpin Liquefied Natural Gas (LNG) export contracts usually takes more than five years. Hence, exploration licences of just five year terms with

requirements to surrender one-third to one-half of original exploration licence areas at five year junctures is an imperfect fit for commercialising unconventional gas plays, including Coal Seam Gas (CSG) and shale gas plays.

South Australian Petroleum Exploration Licences (PELs) can cover up to 10,000 square kilometres and have either two or three five-year terms, with annual work programs. Requirements to surrender parts of PELs at the end of each five-year term can be offset where exploration has discovered reserves or resources with realistic scope for future commercialisation. This is enabled with PEL holders' entitlements to be granted conjunctive:

- Petroleum Production Licences (PPLs) over lands up to twice the probable area of petroleum reserves (equivalent to at least a 50 percent level of certitude for the areal extent of reserves); or
- Petroleum Retention Licences (PRLs) over lands up to twice the possible area of petroleum resources (equivalent to at least a 10 percent level of certitude for the areal extent of resource). PRLs are designed to sustain tenure over discoveries that are not economic with current technologies or costs.

PPLs are held by production and are subject to the '24 month rule'<sup>7</sup>. In PPLs originating from PELs granted post 27 February 1999, the area within the PPLs can be converted in part, or in total, into PRLs to cover up to twice the possible area of petroleum resources.

PRLs have five-year terms with possible annual work programs designed to

<sup>7</sup> Where there has been no production within a PPL for 24 months or more, the Minister will generally ask the PPL holder(s) to specify why the PPL should continue rather than be surrendered. This enables the State to mitigate the risk of anti-competitive warehousing of land areas in PPLs without production that could otherwise be offered for over-the-counter or competitive work program bids for new PEL(s). Where a PPL holder credibly demonstrates a schedule, for example, to produce gas into long term contracts, then the Minister has flexibility to allow PPLs to continue without production.

commercialise the resource within the PRLs. There is no prescribed limit to the number of five-year PRL renewal terms with appropriate work programs. Work programs for PRLs are negotiated between the applicant and the Minister or the delegate of the Minister.

The maximum size of both individual PPLs and PRLs is 100 km<sup>2</sup>, and there is no limit on the number PPLs or PRLs a company can hold, contiguous or otherwise. Additionally, reporting can be streamlined where contiguous and/proximal areas share licence year anniversaries. Hence, PELs, PRLs and PPLs issued under the PGE Act provide attractive tenure and reporting rules for companies exploring, appraising, booking and developing petroleum reserves in unconventional gas plays.

Compliance with work program conditions is monitored and non-compliances are addressed by DMITRE using a range of regulatory tools. These are discussed in more detail in Chapter 5 (Regulation).

## 7.8 Access to Infrastructure

### 7.8.1 Pipelines

Over 5000 km of pipelines have been laid from the Cooper Basin to gas markets in eastern and southern state capitals and to the liquids load out facility at Port Bonython. Over one million residential, commercial and industrial customers in South Australia, New South Wales, the Australian Capital Territory and Victoria are directly supplied from South Australia. Key pipelines in the region are Santos Ltd's Moomba to Port Bonython liquids line and Epic Energy's Moomba to Adelaide gas pipeline, both operated by Epic Energy; the Port Campbell to Adelaide gas pipeline, owned and operated by South East Australia Gas Pty Ltd (SEA Gas); and the Moomba to Sydney sales gas and ethane pipelines, operated by the APA Group. The Southeast South Australia (SESA) pipeline, owned and operated by the APA Group, connects the SEAGas pipeline with markets in south-east South Australia.

Since January 2009, the Queensland to South Australia/New South (QSN Link) Pipeline between Ballera (Qld) and Moomba (SA) has transported sales gas sourced from CSG reserves in south-eastern Queensland directly into the Moomba to Adelaide gas pipeline. The QSN Link is also capable of delivering directly into the Moomba to Sydney gas pipeline. In 2012 Epic Energy completed a significant expansion of the South West Queensland Pipeline which includes looping of the QSN Link Pipeline. Table 7.1 provides a description of key South Australian Pipelines. Please note that daily nominations and flow data can be viewed at: [www.gasbb.com.au/mapoverview.aspx](http://www.gasbb.com.au/mapoverview.aspx).

*Under the PGE Act a preliminary survey licence (PSL) can be granted to a potential pipeline or flowline constructor to authorise access to land to undertake survey activities, for the purpose of surveying and marking out a proposed pipeline route.*

Australia has a national, industry specific access regime in place which governs third party access to natural gas pipeline systems. This national regime is contained within the National Gas Law which includes the National Gas Rules 2008 ("Gas Rules"). The National Gas Rules govern access to natural gas pipeline services and elements of broader natural gas markets. The Rules have the force of law and are made under the National Gas Law. The National Gas Law can be found at the South Australian Legislation website (*The National Gas (South Australia) Act 2008*). Note that mirror application legislation has been enacted in other jurisdictions implementing the National Gas Law in all States and Territories. The NGL and Gas Rules set out principles for third party access to natural gas transmission and distribution pipeline systems throughout Australia. The NGL and Gas Rules establish the rights and obligations of pipeline owners and users in relation to 'covered' (i.e. regulated) pipelines and provide a mechanism for third parties to obtain access to covered pipelines within an independent regulatory framework, including a resort to arbitration to resolve access disputes. The Gas Rules aim to provide a degree of

**Table 7.1** Key South Australian Transmission Pipelines

Pipeline	Licence Number	Diameter (OD)	Fluid	MAOP (MPa)	Capacity (TJ/day)
Moomba to Adelaide Pipeline (mainline)	1	559mm	Sales Gas	7.3	253
Moomba to Port Bonython Liquids Line	2	356mm	Hydrocarbon Liquids	10.3	280
Moomba to Sydney Pipeline	7	864mm	Sales Gas	5.5	420
SEA Gas Pipeline	13	457mm	Sales Gas	15.3	315
SESA Pipeline	16	219mm	Sales Gas	10.2	40
QSN Link	18	406/457mm	Sales Gas	15.3	400

Add status – whether regulated or not

certainty as to the terms and conditions of access to the services of covered pipelines in the event of a dispute, while preserving the ability for parties to negotiate access on commercial terms.

The national competition council (NCC) is responsible for classifying and reclassifying pipelines, determining the form of regulation and providing advice on an application for amendment to a pipeline description referred to it by the relevant Minister. The Australian Energy Regulator (AER) is the economic regulator for covered natural gas transmission and distribution pipelines in all states and territories. None of the South Australian transmission pipelines are currently covered and therefore access arrangements to these pipelines are not required.

AEMO has recommended the instigation of gas sales bulletin boards reflecting the price paid for gas at trading hubs. Greater transparency of contracted versus actually used pipeline capacity would be also foster 'deeper' gas sales markets, by enabling greater use of existing pipeline facilities by a greater number of enterprises. This latter concept has been raised in relevant Standing Council for Energy and Resources forums.

### 7.8.2 Production Facilities

In the Cooper Basin, gas from individual wells passes via field gathering systems (flowlines) to field satellite stations which separate gas, free water and condensate. The essentially water-free gas and condensate pass to the central Moomba treatment plant through

trunklines. Crude oil is transported by either pipeline or truck to the Moomba plant. At the plant, free condensate, carbon dioxide and water are removed from the raw gas and liquids are recovered, leaving sales gas for Adelaide and Sydney. Since the commissioning of the SEA Gas Pipeline (which provides an alternative gas supply to South Australia), the plant is not operating at its maximum capacity. Processed sales gas is stored underground in the lower Daralingie Formation in times of low demand. This gas is removed from storage and produced during times of peak demand.

Condensate, Liquefied Petroleum Gas (LPG), crude oil and some ethane are transported as a 'cocktail' via a pipeline to Port Bonython where they are separated and marketed. When loading to a ship, the products (crude, naphtha, butane or propane) are pumped along the 2.4 km jetty then conveyed through hydraulically controlled loading arms into the ship tanks for transport to Australian refineries or overseas.

Third parties have been able to negotiate commercial terms to either toll into the Moomba Plant and existing pipeline facilities, or sell petroleum production to the owners of the Moomba processing facilities. The minimum economic size for a liquids-rich gas field to justify a stand-alone gas processing plant is in the order of 20+ PJ<sup>8</sup>.

<sup>8</sup> McDonough, R., Economics of Gas Gathering and Processing in the Cooper Basin, Report Book 97/34, July 1997. Available at [http://www.pir.sa.gov.au/petroleum/prospectivity/basin\\_and\\_province\\_information/prospectivity\\_cooper/gas\\_gathering\\_economics](http://www.pir.sa.gov.au/petroleum/prospectivity/basin_and_province_information/prospectivity_cooper/gas_gathering_economics)

The Katnook gas processing plant also exists near Penola in SE South Australia. Gas is processed via low temperature separation to achieve pipeline hydrocarbon and water specifications. Condensate recovered from the process is trucked to the Shell Refinery in Geelong, Victoria. The plant was acquired by Beach Energy in early 2012 who are currently undertaking a review of the facility to assess options for its future use.

## 7.9 Fiscal and Taxation Regime

### 7.9.1 Royalty

The Crown retains ownership of petroleum and other regulated resources contained in the ground for onshore South Australia. Ownership of a regulated substance transfers to a licensee upon recovery of the regulated substance on which a royalty is levied. This royalty is in addition to the Commonwealth, state and local government taxation regimes to which all companies and individuals are subject.

Royalties are calculated as a proportion of the net sales value of regulated substance at the actual point of sale to an arms-length purchaser after deduction from the gross sale value of certain expenses. Deductible expenses are those directly relating to treating, processing or refining the regulated substance post wellhead, or in conveying the regulated substance to the point of delivery to the purchaser (the wellhead value). Pre-wellhead costs such as those incurred in exploration, drilling or recovery activities cannot be claimed for the purposes of determining royalty.

State royalty provisions are globally competitive at 10 percent of net well head sales value for petroleum. Since 1991, the average royalty paid equals 6.81 percent of the sales value in South Australia.

### 7.9.2 Petroleum Resource Rent Tax

The Federal Government will be applying an extension of the Petroleum Resource Rent Tax (PRRT) to all onshore petroleum projects

in Australia from 1 July 2012. A Minerals Resource Rent Tax (MRRT) is to also apply from 1 July 2012 to projects that mine coal as feedstock for power and/or manufactured sales products (synfuel, fertiliser, etc).

The Federal Government *Draft Energy White Paper 2011 - Strengthening the Foundation for Australia's Energy Future*<sup>9</sup> states that these taxes are designed to capture the economic rents associated with Australia's non-renewable iron ore, coal and petroleum resources, and provide the community as a whole with a better return on their natural resources. When compared to royalties, rent-based taxes make resource charging arrangements more attuned to the economic cycle, as producers only pay tax when they are profitable.

To date, the Federal Government has stated that State royalties will be a credit to companies versus MMRT and PRRT exposure to avoid the risk of double taxation. The PRRT scheme is payable on petroleum production for sales operations that exceed taxable profits of AUD 50m per annum.

All petroleum production operations in South Australia appear to be subject to the proposed PRRT, but details of the implementation remain to be made sufficiently clear to enable absolute certainty as to the impact on reporting requirements and post depreciation, tax and royalty revenues.

Clarity is being sought as to how the MRRT and PRRT will be applied to unconventional gas projects related to coal, for example underground coal gasification, coal to liquids and gas to liquids. The impact on other unconventional gas resources such as shale gas and basin-centred gas also needs assessment. The offshore PRRT scheme was structured around conventional offshore activities.

<sup>9</sup> Available on the Department of Resources, Energy and Tourism website: refer to [http://www.ret.gov.au/energy/facts/white\\_paper/draft-ewp-2011/Pages/draft-ewp.aspx](http://www.ret.gov.au/energy/facts/white_paper/draft-ewp-2011/Pages/draft-ewp.aspx)

### 7.9.3 Carbon Price Mechanism

For salient information visit:

Clean Energy Act 2011: [www.comlaw.gov.au/Details/C2011A00131](http://www.comlaw.gov.au/Details/C2011A00131)

Clean Energy Regulator Act 2011: [www.comlaw.gov.au/Details/C2012C00257](http://www.comlaw.gov.au/Details/C2012C00257)

Clean Energy Regulations 2011: [www.comlaw.gov.au/Details/F2012C00193](http://www.comlaw.gov.au/Details/F2012C00193)

An additional useful overview of carbon pricing is provided at:

[www.cleanenergyregulator.gov.au/Carbon-Pricing-Mechanism/Pages/default.aspx](http://www.cleanenergyregulator.gov.au/Carbon-Pricing-Mechanism/Pages/default.aspx).

### 7.9.4 General taxation

The Australian company tax rate (also known as the corporate tax rate) is 30 percent. The treatment of business expenditure for the mining and petroleum industries is generally the same as for other industries. Expenditure that is not capital, such as daily operational expenses, is usually deductible at the time incurred. The cost of depreciating assets is generally deductible over the effective life of the asset. For more information on Australian taxation requirements visit:

[www.rtf.gov.au/resources/Pages/Publications.aspx](http://www.rtf.gov.au/resources/Pages/Publications.aspx)

### 7.9.5 Water Licensing

Petroleum and Geothermal exploration activities within the Far North Prescribed Wells Area (FNPWA) have an exemption from requiring a water allocation to extract water for regulated activities under the *Petroleum and Geothermal Energy Act 2000*. This is an agreement approved by the Minister for Environment and Conservation pursuant to section 128 of the Natural Resources' Management Act 2004<sup>10</sup>(NRM Act) which was published in the South Australia Government Gazette on the 5 January 2012. Petroleum and geothermal production activities current water allocation set aside is 60 ML/d within the FNPWA. Current industry

use is at approximately 30ML/d which is published in the Energy Resources Division Annual Compliance Reports<sup>11</sup>.

Water Allocation Plans are a legal document summarizing the rules for allocation, use and transfer of water from prescribed water courses. They are prepared under the authority of the NRM Act, which provides a listing of prescribed waters in South Australia. The current Water Allocation Plan for the Far North Prescribed Wells Area can be viewed on the South Australian Arid Lands Natural Resources Management Board website<sup>12</sup>. Water Allocation Plans for other regions are progressing.

Industry is required to apply for a water well construction permit through DEWNR to extract water within the FNPWA. This well construction permit enables DEWNR to enforce various conditions as set out in the NRM Act.

<sup>11</sup> Go to [www.petroleum.dmitre.sa.gov.au/legislation/compliance/petroleum\\_act\\_annual\\_compliance\\_report](http://www.petroleum.dmitre.sa.gov.au/legislation/compliance/petroleum_act_annual_compliance_report)

<sup>12</sup> Go to [www.saalnm.sa.gov.au](http://www.saalnm.sa.gov.au) > Policy and Planning > Water Allocation Plan > Water Allocation Plan, Far North Prescribed Wells Area.

<sup>10</sup> [www.legislation.sa.gov.au/LZ/C/A/NATURAL%20RESOURCES%20MANAGEMENT%20ACT%202004.aspx](http://www.legislation.sa.gov.au/LZ/C/A/NATURAL%20RESOURCES%20MANAGEMENT%20ACT%202004.aspx)