



9

GAS TRANSMISSION



Transmission pipelines transport natural gas from production fields to major demand centres. The pipelines typically have wide diameters and operate under high pressure to optimise shipping capacity. They are placed mainly underground, which helps to minimise damage that could pose safety issues and interrupt gas supplies. In total, Australia's gas transmission network covers over 20 000 kilometres.

9 GAS TRANSMISSION

This chapter considers:

- > Australia's gas transmission sector
- > the structure of the sector, including industry participants and ownership changes over time
- > the economic regulation of the gas transmission sector
- > new investment in transmission pipelines
- > emerging competition in the gas transmission sector
- > pipeline tariffs.

9.1 Australia's gas transmission pipelines

Australia's gas transmission pipeline network has almost trebled in length since the early 1990s. Around \$4 billion has been invested or committed to new transmission pipelines and expansions since 2000.¹ Much of this investment has been in long haul interstate pipelines to introduce new supply sources and improve security of supply. The construction of Epic Energy's QSN Link (stage 1 completed in 2009) has interconnected the Queensland transmission

network with major pipelines in South Australia and New South Wales.²

Earlier projects included the Eastern Gas Pipeline (Longford to Sydney, completed in 2000), the Tasmanian Gas Pipeline (Longford to Hobart, 2002) and the South East Australia Gas (SEA Gas) Pipeline (Port Campbell to Adelaide, 2003). The VicHub in eastern Victoria was constructed in 2002 to physically interconnect the Victorian Transmission System with the Tasmanian Gas Pipeline and the Eastern Gas Pipeline.

1 AER estimate comprising investment in new pipelines and major expansions (table 9.3) and regulatory approved investment in covered pipelines.

2 Previously, only a raw gas pipeline from Ballera to Moomba connected the Queensland and South Australian pipeline systems.

In combination, these projects have created an interconnected pipeline network covering Queensland, New South Wales, Victoria, South Australia, Tasmania and the Australian Capital Territory (ACT).

The interconnection of the eastern jurisdictions has improved options to source gas from alternative gas basins. A retailer in Sydney, for example, can source natural gas from Queensland's Surat-Bowen Basin (using the QSN Link and Moomba to Sydney Pipeline), South Australia's Cooper Basin (using the Moomba to Sydney Pipeline) or Bass Strait (using the Eastern Gas Pipeline). These developments are enhancing the competitive environment for gas producers, pipeline operators and gas retailers and improve supply options in times of constrained production.

Transmission pipelines in Western Australia and the Northern Territory are not interconnected with other jurisdictions. The populated south west of Western Australia is serviced by the Dampier to Bunbury Pipeline, which delivers gas from the Carnarvon Basin. The smaller Parmelia Pipeline transports gas from both the Carnarvon and Perth basins. There has been substantial investment in Western Australian pipelines in the past decade, including major expansions of the Dampier to Bunbury Pipeline and new pipelines to supply gas to the mining and resources sector.

In the Northern Territory, the completion of the Bonaparte Pipeline in December 2008 introduced a second source of natural gas—from the Blacktip field—to compete with gas from the declining Mereenie and Palm Valley gas fields (which ship gas via the Amadeus Basin to Darwin Pipeline).

Table 9.1 sets out summary details of Australia's major transmission pipelines. Figure 9.1 illustrates pipeline routes.

9.2 Ownership of gas transmission pipelines

Government reforms to the gas sector in the 1990s led to structural reform and significant ownership changes. In particular, vertically integrated gas utilities were disaggregated and most government owned transmission pipelines were privatised. Figure 9.2 summarises changes in the ownership of major transmission pipelines since 1994.

Privatisation led to the entry of United States based utilities such as Epic Energy and Duke Energy. The principal domestic player was the New South Wales energy utility AGL, which owned or acquired major transmission assets in New South Wales and Queensland. In 2000 AGL's gas transmission assets were transferred to the Australian Pipeline Trust, which is now part of APA Group.³

Over time, the United States based utilities exited the Australian market, and new players such as Alinta took their place. Investment trusts such as Hastings and DUET Group also acquired transmission assets. The ownership landscape experienced a major shift in 2007 with the sale of Alinta to Singapore Power International and Babcock & Brown.⁴

Further consolidation has reduced the number of principal players in the gas transmission sector to four:

- > *Singapore Power International* acquired a portfolio of gas transmission assets from Alinta in 2007, and rebranded them as *Jemena* in August 2008. It owns and operates the Eastern Gas Pipeline, VicHub and the Queensland Gas Pipeline, and operates the Tasmanian Gas Pipeline.

3 In 2006 the Australian Pipeline Trust began trading as part of APA Group, which comprises Australian Pipeline Ltd, the Australian Pipeline Trust and the APT Investment Trust.

4 The 2007 and 2008 editions of the AER's *State of the energy market* report detail the historical changes in the ownership of gas transmission infrastructure. The reports are available on the AER website: www.aer.gov.au.

Table 9.1 Major gas transmission pipelines

PIPELINE	LOCATION	LENGTH (KM)	CAPACITY (TJ/D)	CONSTRUCTED	COVERED?
NORTH EAST AUSTRALIA					
North Queensland Gas Pipeline	Qld	391	108	2004	No
Queensland Gas Pipeline (Wallumbilla to Gladstone)	Qld	629	79	1989–91	No
Carpentaria Pipeline (Ballera to Mount Isa)	Qld	840	117	1998	Yes (light)
Berwyndale to Wallumbilla Pipeline	Qld	113		2009	No
Dawson Valley Pipeline	Qld	47	30	1996	Yes
Roma (Wallumbilla) to Brisbane	Qld	440	208	1969	Yes
Wallumbilla to Darling Downs Pipeline	Qld	205	400	2009	No
South West Queensland Pipeline (Ballera to Wallumbilla)	Qld	756	168	1996	No
QSN Link (Ballera to Moomba)	Qld–SA and NSW	180	212	2009	No
SOUTH EAST AUSTRALIA					
Moomba to Sydney Pipeline	SA–NSW	2029	420	1974–93	Partial (light)
Central West (Marsden to Dubbo) Pipeline	NSW	255	10	1998	Yes
Central Ranges (Dubbo to Tamworth) Pipeline	NSW	300	7	2006	Yes
Eastern Gas Pipeline (Longford to Sydney)	Vic–NSW	795	250	2000	No
Victorian Transmission System (GasNet)	Vic	2035	1030	1969–2008	Yes
South Gippsland Natural Gas Pipeline	Vic	250		2006–10	No
VicHub	Vic		150 (into Vic)	2003	No
Tasmanian Gas Pipeline (Longford to Hobart)	Vic–Tas	734	129	2002	No
SEA Gas Pipeline (Port Campbell to Adelaide)	Vic–SA	680	314	2003	No
Moomba to Adelaide Pipeline	SA	1185	253	1969	No
WESTERN AUSTRALIA					
Dampier to Bunbury Pipeline	WA	1854	785	1984	Yes
Goldfields Gas Pipeline	WA	1427	150	1996	Yes
Parmelia Pipeline	WA	445	70	1971	No
Pilbara Energy Pipeline	WA	219	188	1995	No
Midwest Pipeline	WA	353	20	1999	No
Telfer Pipeline (Port Hedland to Telfer)	WA	443	25	2004	No
Kambalda to Esperance Pipeline	WA	350	6	2004	No
Kalgoorlie to Kambalda Pipeline	WA	44	20		Yes
NORTHERN TERRITORY					
Bonaparte Pipeline	NT	287	80	2008	No
Amadeus Basin to Darwin Pipeline	NT	1512	44	1987	Yes
Wickham Point Pipeline	NT	13		2009	No
Daly Waters to McArthur River Pipeline	NT	330	16	1994	No
Palm Valley to Alice Springs Pipeline	NT	140	27	1983	No

TJ/d, terajoules per day; CKI, Cheung Kong Infrastructure; REST, Retail Employees Superannuation Trust.

Notes:

Covered pipelines are subject to regulatory arrangements under the National Gas Law. The Australian Energy Regulator (AER) regulates covered pipelines outside Western Australia, where the Economic Regulation Authority is the transmission regulator.

For covered pipelines subject to full regulation, valuation refers to the opening capital base for the current regulatory period. For the Moomba to Sydney Pipeline, the Australian Competition Tribunal determined the valuation. For non-covered pipelines, listed valuations are estimated construction costs, subject to availability of data.

VALUATION (\$ MILLION)	CURRENT ACCESS ARRANGEMENT	OWNER	OPERATOR
160 (2005)	Not required	Victorian Funds Management Corporation	AGL Energy, Arrow Energy
	Not required	Jemena (Singapore Power International (Australia))	Jemena Asset Management
	Not required	APA Group	APA Group
70 (2009)	Not required	AGL Energy	AGL Energy
8 (2007)	2007–16	Anglo Coal (51%), Mitsui (49%)	Anglo Coal
296 (2006)	2007–11	APA Group	APA Group
90 (2009)	Not required	Origin Energy	Origin Energy
	Not required	Epic Energy (Hastings)	Epic Energy
165 (2009)	Not required	Epic Energy (Hastings)	Epic Energy
835 (2003)	2004–09	APA Group	APA Group
28 (1999)	2000–10	APA Group	APA Group
53 (2003)	2005–19	APA Group	Country Energy (NSW Govt)
450 (2000)	Not required	Jemena (Singapore Power International (Australia))	Jemena Asset Management
524 (2007)	2008–12	APA Group	APA Group/AEMO
50 (2007)	Not required	Multinet Gas	Jemena Asset Management
	Not required	Jemena (Singapore Power International (Australia))	Jemena Asset Management
440 (2005)	Not required	Babcock & Brown Infrastructure	Jemena Asset Management
500 (2003)	Not required	International Power, APA Group and REST (equal shares)	APA Group
370 (2001)	Not required	Epic Energy (Hastings)	Epic Energy
1618 (2004)	2005–10	DUET Group (60%), Alcoa (20%), Babcock & Brown Infrastructure (20%)	WestNet Energy (Babcock & Brown Infrastructure)
514 (1999)	2000–09	APA Group (88.2%), Babcock & Brown Power (11.8%)	APA Group
	Not required	APA Group	APA Group
	Not required	Epic Energy (Hastings)	Epic Energy
	Not required	APA Group (50%), Horizon Power (WA Govt) (50%)	APA Group
114 (2004)	Not required	Energy Infrastructure Investments (APA Group 20%, Marubeni 50%, Osaka Gas 30%)	APA Group
45 (2004)	Not required	ANZ Infrastructure Services	WorleyParsons Asset Management
	None approved	APA Group	APA Group
170 (2008)	Not required	Energy Infrastructure Investments (APA Group 20%, Marubeni 50%, Osaka Gas 30%)	APA Group
229 (2001)	2001–11	Amadeus Pipeline Trust (APA Group 96%)	NT Gas (APA Group)
36 (2009)	Not required	Energy Infrastructure Investments (APA Group 20%, Marubeni 50%, Osaka Gas 30%)	APA Group
	Not required	APA Group, Power and Water	NT Gas (APA Group)
	Not required	Envestra (APA Group 31%, CKI 17%)	APA Group

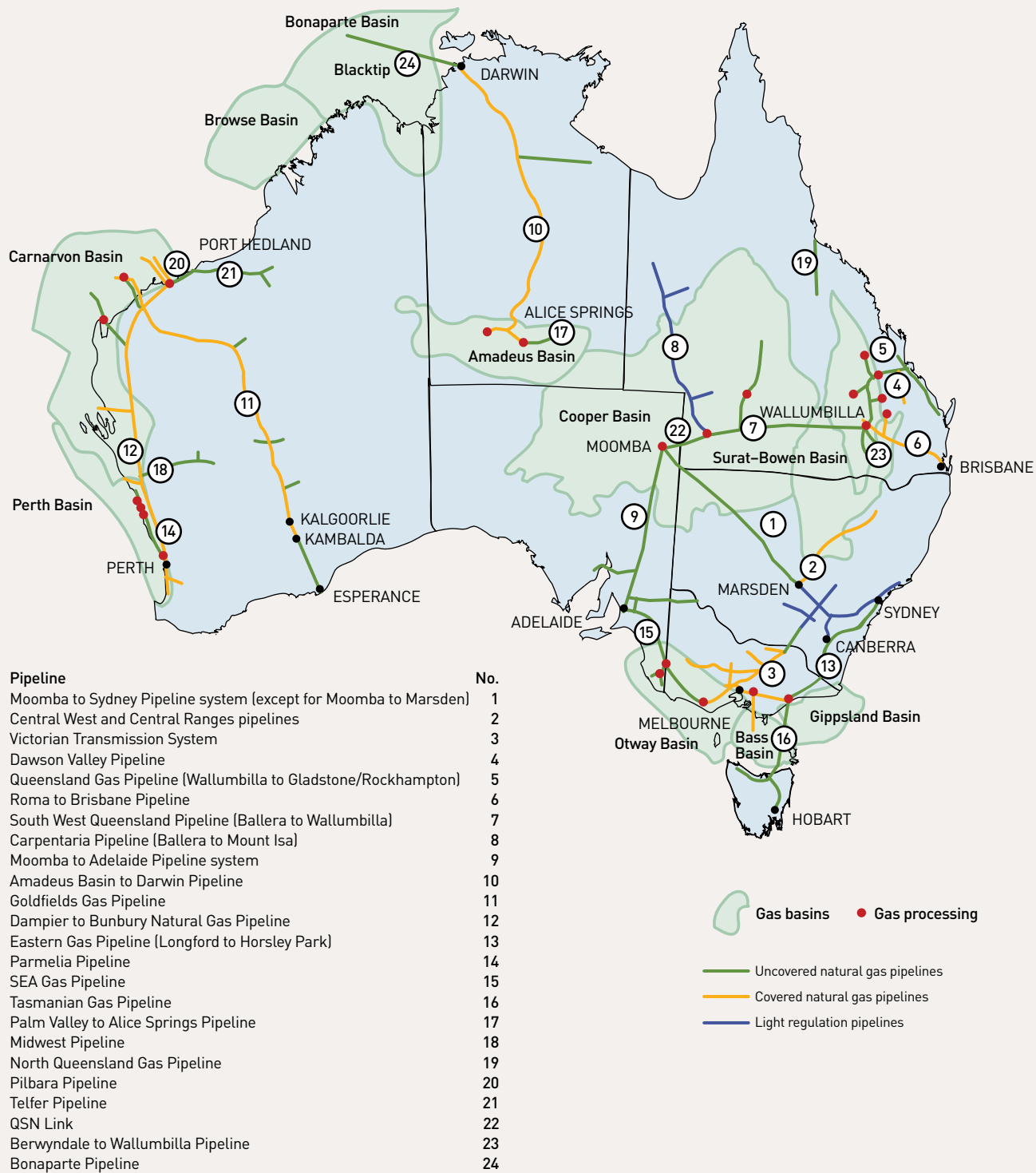
Coverage of the Moomba to Sydney Pipeline was partly revoked in 2003. The revoked portion runs from Moomba to the offtake point of the Central West Pipeline at Marsden (figure 9.1). The covered portion became a light regulation pipeline in 2008.

'Current access arrangement' refers to access terms and conditions approved by the regulator.

Some corporate names have been abbreviated or shortened.

Sources: Capacity: Office of Energy (Western Australia); National Gas Market Bulletin Board (www.gasbb.com.au); EnergyQuest, *Energy Quarterly*, August 2009; corporate websites. Other data: access arrangements for covered pipelines; EnergyQuest, *Energy Quarterly*, August 2009; ABARE, *Major development projects*, April 2009; corporate websites, annual reports and media releases.

Figure 9.1
Major gas transmission pipelines



Source: AER.

Figure 9.2
Transmission pipeline ownership

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	
SOUTH EAST AUSTRALIA	Moomba–Sydney	Govt	AGL 51%, Gasinvest 49%				APA Group										
	Eastern Gas Pipeline						Duke Energy			Alinta		Jemena (Singapore Power)					
	Victorian Transmission System	Govt				GasNet						APA Group					
	SEA Gas Pipeline										Origin, IP, CLP 33.3% each			APA, IP, CLP 33.3% each		APA, IP, REST 33.3% each	
	Moomba–Adelaide	Govt	Tenneco	Epic Energy						Epic Energy (Hastings)							
	Tasmanian Gas Pipeline							Duke Energy		Alinta		BBI					
QUEENSLAND	QSN Link														Epic Energy (Hastings)		
	Queensland Gas Pipeline	Govt	PG&E	Duke Energy						Alinta		Jemena (Singapore Power)					
	Roma–Brisbane	AGL				APT			APA Group								
	Carpentaria Pipeline			AGL		APT			APA Group								
	South West Qld Pipeline / QSN Link		Epic Energy						Epic Energy (Hastings)								
WESTERN AUSTRALIA	Dampier–Bunbury	Govt			Epic Energy						Alinta 20%, DUET 60%, Alcoa 20%		BBI 20%, DUET 60%, Alcoa 20%				
	Goldfields Gas Pipeline	GGT JV WMC 63%			Southern Cross Pipelines Australia 88%						APA Group 88.2%, Alinta 11.8%		APA Group 88%, BBP 12%				
	Parmelia Pipeline	WAPET joint venture		CMS Gas Transmission						APA Group							
NT	Amadeus Basin – Darwin	Amadeus Gas Trust			AGL 96%		APA Group 96%										
	Bonaparte Gas Pipeline													EII (APA 20%)			

APT, Australian Pipeline Trust (assets now part of APA Group); BBI, Babcock & Brown Infrastructure; BBP, Babcock & Brown Power; CKI, Cheung Kong Infrastructure; EII, Energy Infrastructure Investments; GGT JV, Goldfields Gas Pipeline Joint Venture; IP, International Power; WMC, Western Mining Company; PG&E, Pacific Gas and Electric; REST, Retail Employees Superannuation Trust; WAPET, West Australian Petroleum Pty Limited joint venture.

Notes:

Some corporate names have been abbreviated or shortened.

From 1996–2003 Epic Energy was owned by El Paso Energy (30%), CNG International (30%), Allgas Energy (10%), AMP Investments (10%), Axiom Funds Management (10%) and Hastings (10%).

In 2008 Singapore Power International rebranded its gas transmission assets as Jemena.

Sources: AER; Australian Gas Association, *Gas statistics Australia*, Melbourne (various years); corporate reports and websites.

> *APA Group* owns the Moomba to Sydney, Central West and Central Ranges pipelines in New South Wales; the Victorian Transmission System; two major Queensland pipelines (Carpentaria and Roma to Brisbane); three major Western Australian pipelines (Goldfields, Parmelia and Midwest); and a major Northern Territory pipeline (Amadeus Basin to Darwin). It also part owns the SEA Gas Pipeline and other Northern Territory pipelines.

In December 2008 APA Group sold the Bonaparte and Wickham Point pipelines (Northern Territory) and Telfer Gas Pipeline (Western Australia) into an unlisted investment vehicle, Energy Infrastructure

Investments Pty Limited (EII). Marubeni Corporation (50 per cent stake) and Osaka Gas (30 per cent) have majority equity. APA Group retains a 20 per cent equity interest and continues to operate the assets.

> *Babcock & Brown Infrastructure* acquired a 20 per cent interest in the Dampier to Bunbury Pipeline from Alinta in 2007. It now operates the pipeline through its management services business WestNet Energy. It also owns the Tasmanian Gas Pipeline and has a minority interest in Western Australia's Goldfields Gas Pipeline.

> *Hastings Diversified Utilities Fund*, managed by a fund acquired by Westpac in 2005, acquired *Epic Energy's* gas transmission assets in 2000. It owns the Moomba to Adelaide Pipeline (South Australia), the Pilbara Energy Pipeline (Western Australia) and the South West Queensland Pipeline. In 2009 Epic Energy completed stage 1 of the QSN Link from Queensland to South Australia and New South Wales. In 2009 Hastings called for expressions of interest for the sale of part or all of Epic Energy. Hastings reported on 26 June 2009 that the sale process was continuing.

Other players include:

- > DUET Group, the majority owner (60 per cent) of the Dampier to Bunbury Pipeline⁵
- > International Power and the Retail Employees Superannuation Trust, each of which have ownership interests in the SEA Gas Pipeline
- > AGL Energy, which owns the Berwyndale to Wallumbilla Pipeline (commissioned in 2009) but has announced plans for its sale
- > Origin Energy, which owns the Wallumbilla to Darling Downs Pipeline (commissioned in 2009).

Earlier this decade, the ownership and operation (management control) of gas transmission pipelines tended to be separate, but more recently this pattern has reversed. In particular, APA Group and Jemena have moved to an integrated model, whereby a group entity operates and manages all pipeline assets owned or partially owned in the group. The Epic Energy (Hastings) pipelines continue to be operated by group management companies. Babcock & Brown Infrastructure uses a mix of in-house and outsourced asset management approaches.

9.3 Economic regulation of gas transmission pipelines

Gas transmission pipelines are capital intensive and incur declining marginal costs as output increases. This gives rise to a natural monopoly industry structure. Rising demand can usually be accommodated more

cheaply by adding compressors or looping (duplicating part or all of) an existing pipeline than by constructing additional pipelines.

The National Gas Law (Gas Law) and National Gas Rules (Gas Rules) provide the overarching regulatory framework for the gas transmission sector. The Gas Law and Gas Rules commenced on 1 July 2008 in all jurisdictions except Western Australia, which expects to implement the pipeline access provisions in the second half of 2009. These instruments replace the Gas Pipelines Access Law and the National Gas Code (Gas Code), which had provided the national regulatory framework from 1997.

On 1 July 2008 the Australian Energy Regulator (AER) replaced the Australian Competition and Consumer Commission (ACCC) as the regulator for pipelines outside Western Australia. The Economic Regulation Authority of Western Australia is the regulator of covered pipelines in that state.

The Gas Law and Gas Rules apply to covered pipelines (see section 9.3.1). There are different forms of economic regulation for covered pipelines, based on criteria set out in the law (see section 9.3.2).

9.3.1 Which pipelines are regulated?

The Gas Pipelines Access Law applied to most Australian transmission pipelines initially, but this coverage changed over the past decade. Significant new investment in gas pipelines has led to improved interconnection between gas basins and retail markets in the southern and eastern states. This interconnection has increased supply options and, in some instances, may limit the ability of pipeline operators to exercise market power.

The Gas Law anticipates the potential for market conditions to evolve, and includes a coverage mechanism to allow for an independent review of whether there is a need to regulate a particular pipeline. The National Competition Council is the coverage review body, but designated government ministers make final decisions.

5 DUET Group comprises a number of trusts, for which Macquarie Bank (50%) and AMP Capital Holdings (50%) jointly own the responsible entities.

The decisions are open to review by the Australian Competition Tribunal, and in 2001 the tribunal reversed a ministerial decision to cover the Eastern Gas Pipeline.⁶

The coverage process has led to the lifting of economic regulation—in whole or part—from several major pipelines, including the Eastern Gas Pipeline, Western Australia's Parmelia Pipeline, the Moomba to Adelaide Pipeline and a significant portion of the Moomba to Sydney Pipeline. The Queensland Government passed legislation in 2008 that revoked the coverage of two major pipelines: the South West Queensland and Queensland Gas pipelines.⁷

The Gas Law includes a process to allow newly constructed pipelines to be covered. Only one pipeline constructed in the past decade (the Central Ranges Pipeline in New South Wales) is currently covered. Other new pipelines—including the SEA Gas and Tasmanian Gas pipelines and several new pipelines in Western Australia—are not covered. At July 2008 no transmission pipeline into Adelaide or Hobart was subject to economic regulation.

The service provider⁸ of a covered pipeline must comply with the provisions of the Gas Law and Gas Rules. Pipelines that are not covered are subject only to the general anti-competitive provisions of the *Trade Practices Act 1974* (Cwlth). Access to non-covered pipelines is a matter for the access provider and an access seeker to negotiate, without regulatory assistance.

Table 9.1 indicates the coverage status of each major pipeline. At 1 July 2009 11 gas transmission pipelines were covered under the Gas Law (table 9.2). Of these, nine were subject to full regulation and two were subject to light regulation (see section 9.3.2).

In 2008 the Gas Law introduced incentives for investment in greenfields pipelines and international pipelines to Australia. Pipeline owners can apply for a determination that provides a 15 year

exemption from coverage for greenfields pipelines and a 15 year exemption from price regulation for international pipelines.

Table 9.2 Covered transmission pipelines, September 2009

JURISDICTION AND PIPELINE	COMMENTS
NEW SOUTH WALES	
Moomba to Sydney Pipeline	Partially covered; light regulation of covered portion since 2008 ^{1,2}
Central West Pipeline (Marsden to Dubbo)	Covered since 1998 ³
Central Ranges Pipeline	Covered since May 2004 ⁴
VICTORIA	
Victorian Transmission System	Covered since 1997
QUEENSLAND	
Roma (Wallumbilla) to Brisbane Pipeline	Covered since 1997; derogations expired in 2006, enabling the regulator to set tariffs for the first time
Dawson Valley Pipeline	Coverage revoked in 2000 but re-instated in 2006
Carpentaria Pipeline (Ballera to Mount Isa)	Covered since 1997; light regulation since 2008 ²
WESTERN AUSTRALIA⁵	
Dampier to Bunbury Pipeline	Covered since 1999
Goldfields Gas Pipeline	Covered since 1999
Kalgoorlie to Kambalda Pipeline ⁶	Covered since 1999
NORTHERN TERRITORY	
Amadeus Basin to Darwin Pipeline	Covered since 1997

- Coverage of the Moomba to Sydney Pipeline was partly revoked in 2003. The revoked portion runs from Moomba to the offtake point of the Central West Pipeline at Marsden (figure 9.1). The covered portion (Marsden to Wilton) became a light regulation pipeline in 2008.
- The service provider of a light regulation pipeline must publish the terms and conditions of access, including tariffs, on its website. It is not required to submit an access arrangement to the regulator for approval.
- The service provider of the Central West Pipeline lodged an application in October 2009 to convert to light regulation.
- Under the National Gas Law, the Central Ranges Pipeline will cease to be covered once the current access arrangement expires.
- The Gas Code commenced in Western Australia in 1999.
- The regulator has not approved an access arrangement for this pipeline.

6 The Eastern Gas Pipeline was covered by a ministerial decision on 16 October 2000. The Australian Competition Tribunal reversed this decision on 4 May 2001.

7 Any party may apply to the National Competition Council to consider whether a previously covered pipeline should be covered again. The Dawson Valley Pipeline was revoked from coverage in 2000, but a later application reversed this decision in 2006 (table 9.2). The National Gas (Queensland) Regulation 2008 provided that no person may apply to reactivate coverage of the South West Queensland Pipeline for a period of one year, or the Queensland Gas Pipeline for a period of two years.

8 The service provider may be the controller, owner or operator of the whole pipeline or any part of the pipeline.

9.3.2 Regulatory framework

In Australia, the providers of most gas transmission pipelines negotiate contracts to sell transportation services to customers such as energy retailers. The contracts, which set the terms and conditions of third party access, are negotiated on commercial terms that may differ from those set through regulatory processes. A contract typically features a maximum daily quantity allocation and sets a capacity charge, which must be paid regardless of the amount of gas that a customer transports on the pipeline.

In Victoria, an independent operator—the Australian Energy Market Operator (AEMO)—manages the Victorian Transmission System, and users are not required to enter contracts. Instead, a party's daily gas flow is determined by its bids into the wholesale gas market. The bids enter a market clearing engine, which dispatches the lowest priced supply offers to meet demand. Pipeline charges are based on actual gas flows following this dispatch process.

Different forms of economic regulation apply to covered pipelines, based on criteria under the Gas Law.⁹ Nine transmission pipelines are subject to *full regulation*, which requires the service provider to submit an access arrangement to the regulator for approval. The AER is the transmission pipeline regulator, except in Western Australia.¹⁰ An access arrangement sets out the terms and conditions under which third parties can use a pipeline. It must specify at least one reference service that most customers seek, and a reference tariff for that service.

The reference tariff is intended as a basis for negotiation between the pipeline owner and customers. Typically,

reference tariffs apply to firm forward haulage services, which are commonly sought on most pipelines.¹¹ A pipeline may also provide non-reference services, for which the AER does not approve the terms and conditions of access. Gas users seeking access to non-reference services, such as short term or interruptible supply, can try to directly negotiate those services with the pipeline operator or other gas shippers.

An access arrangement must also set out non-price terms and conditions, such as a capacity expansion policy, queuing requirements and gas quality specifications.¹² More generally, an access arrangement must comply with the provisions of the Gas Law, including pricing principles, ring-fencing requirements and provisions for associate contracts. In the event of a dispute, an access seeker may ask the regulator to arbitrate and enforce the provisions of an access arrangement.¹³ The AER has published a guideline on dispute resolution under the Gas Law.¹⁴

The Gas Law establishes a process that may allow a pipeline to convert to *light regulation* without upfront price regulation. The National Competition Council determines whether a pipeline is subject to light regulation. The policy intent is that this form of regulation suits some transmission pipelines.¹⁵ Where light regulation applies, the pipeline provider must publish access prices and other terms and conditions on its website. In the event of a dispute, an access seeker may ask the regulator to arbitrate.

The current light regulation pipelines are the Carpentaria Gas Pipeline in Queensland and the covered portions of the Moomba to Sydney Pipeline (table 9.2).¹⁶

9 The AER published an *Access arrangement guideline* in March 2009, which sets out the forms of regulation (see part 2 of the guideline). The guideline is available on the AER website at www.aer.gov.au.

10 The Economic Regulation Authority is the transmission regulator in Western Australia.

11 Firm forward haulage services enable the customer to reserve capacity on a pipeline and receive a high priority service. Interruptible services are sold on an 'as available' basis and may be interrupted or delayed, especially if a pipeline has capacity constraints.

12 For further information on non-price matters, see AER, *Access arrangement guideline, final*, Melbourne, March 2009, at s. 5.4.1.

13 In Western Australia, a separate arbitrator hears access disputes.

14 AER, *Guideline for the resolution of distribution and transmission pipeline access disputes under the National Gas Law and National Gas Rules, final*, Melbourne, November 2008.

15 The Second Reading Speech for the National Gas (South Australian) Bill 2008 (p. 15) indicates that light regulation may be relevant for point-to-point transmission pipelines with a small number of users, of whom each has countervailing market power.

16 The service provider of the Central West Pipeline lodged an application in October 2009 to convert to light regulation.

9.3.3 Regulatory process

For a pipeline subject to full regulation, the Gas Law requires the provider to submit an initial access arrangement to the regulator and periodically revise it. The revisions generally occur once every five years as scheduled reviews, but can occur more frequently—for example, if a trigger event compels an earlier review, or if the service provider seeks a variation to the access arrangement.

The Gas Rules prescribe the process and timeframe for an access arrangement review. The arrangements are identical to those for gas distribution pipelines. Section 10.4.3 of this report outlines the key elements; the AER published an *Access arrangement guideline* in March 2009, which details these processes.

9.3.4 Regulatory approach

The Gas Rules require the use of a building block approach to determine total revenue and derive tariffs. Total revenue must be sufficient to allow a business to recover efficient costs, including operating costs, taxation, asset depreciation and a return on capital (using a benchmark cost of capital). The Gas Rules also allow for income adjustments from incentive mechanisms that reward efficient operating practices. Tariffs are typically adjusted annually for inflation, and in some cases other factors.¹⁷

In approving a reference tariff, the AER must consider the costs of a prudent and efficient service provider of a pipeline service. In doing so, it will look at the circumstances in which a pipeline operates and draw

on expert assessments, submissions from interested parties, benchmarking, the operation of efficiency mechanisms, and key performance indicator information.

Figures 9.3 and 9.4 show the revenue components under access arrangements for the Victorian Transmission System and the Roma to Brisbane Pipeline. They provide a guide to the typical composition of the revenue components in a determination. In these decisions, depreciation and returns on capital account for almost three quarters of revenue. Operating and maintenance costs account for most of the balance.

For pipelines subject to full economic regulation, the Gas Law sets a test to assess whether new investment may be rolled into the capital base.¹⁸

9.4 Recent gas pipeline investment

Investment in the gas transmission sector typically involves large and lumpy capital projects to expand existing pipelines (through compression, looping and extensions) or construct new pipelines.¹⁹ Around \$4 billion has been invested or committed to new transmission pipelines and expansions since 2000.²⁰ This amount reflects both real investment in new infrastructure and rising resource costs in the construction sector.

Table 9.3 provides summary information on major transmission pipeline investment since 2000. It also lists a selection of pipelines (or expansions) under construction and major pipelines that have been announced for future development.

17 For further information on reference tariffs, see AER, *Access arrangement guideline, final*, Melbourne, March 2009, at s. 5.4.2.

18 The test allows for capital expenditure to be rolled into the regulated capital base if (1) the overall economic value is positive, (2) the present value of incremental revenue is greater than the present value of the capital expenditure or (3) the expenditure is necessary to maintain and improve service safety, or maintain service integrity, or maintain a service provider's capacity to meet levels of demand for existing services.

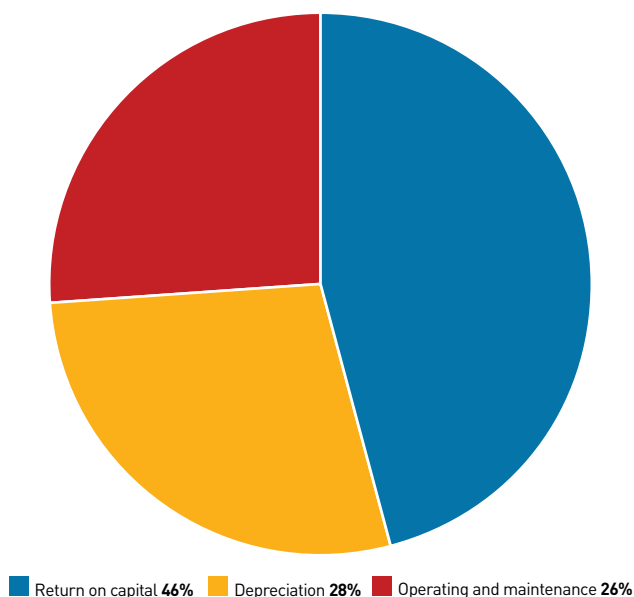
In determining the overall economic value, only the economic value directly accruing to the service provider, gas producers, users and end users is to be considered. There are additional criteria for capital expenditure for Western Australian transmission pipelines, which reflect the value that may directly accrue to electricity market participants from additional gas fired generation capacity.

According to the Second Reading Speech, National Gas (South Australian) Bill 2008, the test is 'designed to capture net increases in producer and consumer surpluses in upstream and downstream gas markets, while also capturing the system security and reliability benefits that were considered by regulators to constitute system wide benefits. The test ... unambiguously includes benefits that accrue to users and end users of gas when they are able to purchase additional quantities of gas, or to gas producers when they are able to sell additional quantities of gas' (p. 18).

19 Pipeline capacity can be increased by adding compressor stations to raise the pressure under which gas flows and by looping (duplicating) sections of the pipeline. Extending the length of the pipeline can increase line pack (storage) capacity.

20 AER estimate comprising investment in new pipelines and major expansions (table 9.3) and regulator approved investment in covered pipelines.

Figure 9.3
Revenue composition for the Victorian Transmission System, 2008–12



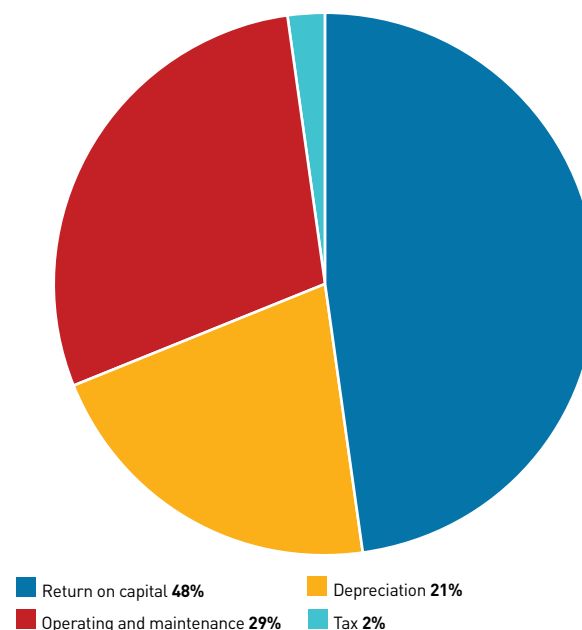
Source: ACCC, *Revised access arrangement by GasNet Australia Ltd for the principal transmission system, final decision*, Canberra, 30 April 2008.

Substantial investment in transmission pipelines in south east Australia occurred between 2000 and 2005. The new pipelines helped develop an interconnected system linking New South Wales, Victoria, South Australia, Tasmania and the ACT. More recently, the focus for new investment has shifted to north east Australia, the Northern Territory and Western Australia.

9.4.1 North east Australia

The development of Queensland's coal seam gas (CSG) industry has spurred significant new pipeline investment. Epic Energy commissioned the QSN Link (Ballera to Moomba) in January 2009, and has expanded capacity on the South West Queensland Pipeline to 170 terajoules per day. The QSN Link creates the ability, for the first time, to deliver dry gas between Queensland and the southern states. The expansion of the South West Queensland Pipeline allows increased flows of CSG from Queensland's Surat–Bowen basin to south east Australia via the QSN Link.

Figure 9.4
Revenue composition for the Roma to Brisbane Pipeline, 2007–11



Source: ACCC, *Revised access arrangement by APT Petroleum Pipelines Ltd for the Roma to Brisbane Pipeline, final decision*, Canberra, 20 December 2006.

In December 2007 Epic Energy announced plans for a \$64 million expansion of the QSN Link and a further (stage 2) expansion of the South West Queensland Pipeline (to 220 terajoules a day) by 2013, to deliver gas for AGL Energy. In June 2009 it announced a conditional agreement with Origin Energy for a further \$760 million expansion of the South West Queensland Pipeline to 380 terajoules per day. The stage 3 expansion would effectively duplicate the existing pipeline.

Other Queensland pipelines are also being expanded. In 2009 APA Group completed a 15 per cent capacity expansion of the Carpentaria Pipeline. Jemena has announced a \$112 million expansion of the Queensland Gas Pipeline (Wallumbilla to Gladstone) by 2010. The expansion will increase the pipeline's capacity from 79 to 133 terajoules per day.

In addition to the QSN Link, two other major pipelines were commissioned in Queensland in 2009:

- > AGL Energy commissioned the \$70 million Berwyndale to Wallumbilla Pipeline. The pipeline allows delivery of CSG from Queensland's Surat-Bowen Basin to the Wallumbilla hub, from which it can be shipped west along the South West Queensland Pipeline to southern markets, or east along the Roma to Brisbane Pipeline to meet gas demand around Brisbane.
- > Origin Energy completed a \$90 million pipeline to ship gas from Wallumbilla to the gas fired Darling Downs power station it is constructing.

Planned development of liquefied natural gas (LNG) projects in Queensland has also spurred plans to develop new transmission infrastructure to transport CSG to Gladstone for LNG processing. Among the proposals are:

- > Santos's 432 kilometre Gladstone LNG Pipeline (Fairview to Gladstone), scheduled for commissioning by 2014
- > Arrow Energy's \$500 million Surat Basin to Gladstone Pipeline (450 kilometres).

9.4.2 South east Australia

Several major transmission pipelines were developed in south east Australia between 2000 and 2005. These included the Eastern, Tasmanian and SEA Gas pipelines (table 9.3). More recently:

- > Multinet began a four year project to develop the South Gippsland Natural Gas Pipeline in 2006. The \$50 million project comprises transmission and distribution infrastructure to provide reticulated natural gas to 10 000 properties in south east Victoria.
- > APA Group completed a \$70 million extension of the Victorian Transmission System in 2008 with the Lara to Brooklyn Pipeline (the Corio loop). The loop facilitates gas flow from the Otway Basin to Melbourne.

The owners of the two transmission pipelines serving Sydney have each announced capacity expansions:

- > APA Group in 2008 began a \$100 million five year expansion program for the Moomba to Sydney Pipeline, which will increase capacity by around

20 per cent. The expansion will increase gas flows for new gas fired electricity generation projects such as Uranquinty near Wagga Wagga.

- > Jemena has announced a \$41 million capacity expansion of the Eastern Gas Pipeline (Longford to Sydney), to be completed by 2010.

9.4.3 Western Australia

In Western Australia, new investment activity has centred on major capacity expansions of the Dampier to Bunbury Pipeline, which is the major link between the state's North West Shelf and gas markets around Perth:

- > The \$430 million stage 4 expansion (completed in December 2006) involved eight new compressors and over 200 kilometres of looping.
- > The \$660 million stage 5A expansion (completed in March 2008) comprised 570 kilometres of looping and added capacity of around 100 terajoules per day. At the completion of stage 5A, around 50 per cent of the pipeline had been duplicated.
- > In 2008 the pipeline owners announced a \$690 million stage 5B expansion to add a further 113 terajoules per day of capacity. The latest expansion, set for completion in 2010, will involve a further 440 kilometres of looping. At the completion of stage 5B, around 94 per cent of the pipeline will have been duplicated.

Also in Western Australia, APA Group completed a 20 per cent expansion of the Goldfields Gas Pipeline in 2009.

9.4.4 Northern Territory

In the Northern Territory, APA Group completed the \$170 million Bonaparte Gas Pipeline in 2008. The 287 kilometre pipeline transports natural gas for domestic supply from the Blacktip field in the Bonaparte Basin. It provides an alternative to gas supply from the declining Palm Valley and Mereenie fields. APA Group sold the pipeline into an unlisted investment vehicle, Energy Infrastructure Investments, in 2008.

Table 9.3 Major gas transmission pipeline investment since 2000

PIPELINE	LOCATION	OWNER/PROPONENT	SCALE	COST (\$ MILLION)	COMPLETION DATE
COMPLETED					
NORTH EAST AUSTRALIA					
Wallumbilla to Darling Downs Pipeline	Qld	Origin Energy	205 km	90	2009
Berwyndale to Wallumbilla Pipeline	Qld	AGL Energy	113 km	70	2009
South West Queensland Pipeline—stage 1	Qld	Epic Energy	Expansion to 170 TJ/d	165	2009
QSN Link—stage 1	Qld–SA and NSW	Epic Energy	180 km, 250 TJ/d		
Carpentaria Pipeline	Qld	APA Group	15% expansion to 117 TJ/d		2009
North Queensland Gas Pipeline (Moranbah to Townsville)	Qld	Victorian Funds Management Corporation	391 km	160	2005
SOUTH EAST AUSTRALIA					
Corio Loop (expansion of Victorian Transmission System)	Vic	APA Group	57 km	70	2008
South Gippsland Natural Gas Pipeline	Vic	Multinet Gas	250 km	50	2009
Tasmanian Gas Pipeline (Longford to Hobart)	Vic–Tas	Babcock & Brown Infrastructure	734 km	440	2002–05
VicHub	Vic	Singapore Power International			2003
SEA Gas Pipeline (Port Campbell to Adelaide)	Vic–SA	International Power, APA Group, Retail Employees Superannuation Trust (equal shares)	680 km	500	2003
Eastern Gas Pipeline (Longford to Sydney)	Vic–NSW	Singapore Power International	795 km	450	2000
WESTERN AUSTRALIA					
Goldfields Gas Pipeline	WA	APA Group (88.2%), BBP (11.8%)	20% expansion to 150 TJ/d		2009
Dampier to Bunbury stage 5A expansion	WA	DUET (60%), BBI (20%), Alcoa (20%)	Capacity increased by 100 TJ/d	660	2008
Dampier to Bunbury stage 4 expansion	WA	DUET (60%), BBI (20%), Alcoa (20%)	200 km	430	2006
Telfer Pipeline (Port Hedland to Telfer Goldmine)	WA	APA Group	443 km	114	2004
Kambalda to Esperance Pipeline	WA	ANZ Infrastructure Services	350 km	45	2004
NORTHERN TERRITORY					
Bonaparte Gas Pipeline	NT	Energy Infrastructure Investments	287 km	170	2008
Wickham Point Pipeline	NT	Energy Infrastructure Investments	13 km	36	2009

PIPELINE	LOCATION	OWNER/PROPONENT	SCALE	COST (\$ MILLION)	COMPLETION DATE
UNDER CONSTRUCTION					
SOUTH EAST AUSTRALIA					
Moomba to Sydney Pipeline	NSW	APA Group	Five year 20% capacity expansion	100	From 2008
Eastern Gas Pipeline	Vic-NSW	Jemena	Expansion from 250 TJ/d to 268 TJ/d	41	2010
NORTH EAST AUSTRALIA					
Queensland Gas Pipeline expansion	Qld	Jemena	Expansion from 79 TJ/d to 133 TJ/d	112	2010
WESTERN AUSTRALIA					
Dampier to Bunbury stage 5B expansion	WA	DUET (60%), BBI (20%), Alcoa (20%)	113 TJ/day	690	2010
ANNOUNCED					
NORTH EAST AUSTRALIA					
South West Queensland Pipeline—stage 2	Qld	Epic Energy	Expansion to 220 TJ/d	64	2013
QSN Link—stage 2	Qld-SA and NSW	Epic Energy			
South West Queensland Pipeline—stage 3	Qld	Epic Energy	Expansion to 380 TJ/d	760	Conditional agreement
QSN Link—stage 3	Qld-SA and NSW	Epic Energy			
Queensland Hunter Pipeline (Wallumbilla–Newcastle)	Qld-NSW	Hunter Gas Pipeline	831 km	750–850	2012
Lions Way Pipeline (Casino to Ipswich)	NSW-Qld	Metgasco	145 km	120	2010–11
Gladstone LNG Pipeline (Fairview–Gladstone)	Qld	Santos	432 km		2014
Surat Basin to Gladstone	Qld	Arrow	450 km	500	n/a
WESTERN AUSTRALIA					
Dampier to Bunbury stage 5C expansion	WA	DUET (60%), BBI (20%), Alcoa (20%)	100 TJ/d		2011–12

TJ/d, terajoules per day; BBI, Babcock & Brown Investment.

Note: Projections of future scale, costs and completion dates are indicative.

Sources: EnergyQuest, *Energy Quarterly*, August 2009; ABARE, *Major development projects*, Canberra, April 2009; National Gas Market Bulletin Board (www.gasbb.com.au); corporate websites, reports and media releases.

9.4.5 Effects on competition

Investment over the past decade has led to the development of an interconnected gas pipeline system covering southern and eastern Australia. While gas tends to be purchased from the closest possible source to minimise transport costs, interconnection of the major pipelines provides energy customers with greater choice and enhances the competitive environment for gas supply.

Table 9.4 lists the pipelines and gas basins serving each major Australian market. Gas customers in Sydney, Melbourne, Canberra, Adelaide, Perth and Darwin are now served by multiple transmission pipelines from multiple gas basins. In particular, the construction of new pipelines and the expansion of existing ones have opened the Surat–Bowen, Cooper, Sydney, Gippsland, Otway and Bass basins to increased interbasin competition.

The National Gas Market Bulletin Board, which commenced in July 2008, provides real-time information on the gas market to enhance competition. The AER draws on the bulletin board to report weekly on gas market activity in southern and eastern Australia. The reporting covers gas flows on particular pipelines and gas flows from competing basins to end markets. Figures 9.5–9.8 illustrate recent activity.

Figure 9.5 illustrates the effects of the opening of the QSN Link on gas flows in south west Queensland. Since the commissioning of the QSN Link in January 2009, westerly flows have significantly increased along the South West Queensland Pipeline, feeding into the QSN Link and the Carpentaria Pipeline to Mount Isa. Figure 9.5 shows average gas flows (including flows to southern markets via South Australia) have roughly trebled since the opening of the QSN Link. Average daily flows for the week ending 12 September 2009, for example, were about 111 terajoules higher than average flows in the same period in 2008. Gas flows to the southern states via the QSN Link accounted for about half of this increase.

Figures 9.6–9.8 illustrate recent trends in the delivery of gas from competing basins into New South Wales, Victoria and South Australia since the opening of the bulletin board in July 2008:

- > While New South Wales historically relied on Cooper Basin gas shipped on the Moomba to Sydney Pipeline, gas shipped on the Eastern Gas Pipeline from Victoria's Gippsland Basin now supplies a substantial proportion of the state's gas requirements.
- > While the Gippsland Basin remains the principal source of gas supply for Victoria, the state also sources some of its requirements from the Otway Basin via the South West Pipeline (an artery of the Victorian Transmission System). Victoria also sources some gas from the northern basins via the New South Wales – Victoria Interconnect Pipeline.
- > The Moomba to Adelaide Pipeline and the SEA Gas Pipeline each transport substantial volumes of gas for the South Australian gas market. The Moomba to Adelaide Pipeline transports gas from Queensland's Surat–Bowen Basin via the QSN Link, and South Australia's Cooper Basin. The SEA Gas Pipeline delivers gas from Victoria's Otway Basin.

While Santos, Origin Energy and BHP Billiton have production interests in several gas basins, transmission pipeline interconnection has also provided new markets for smaller producers. Interconnection may benefit the wider energy sector too. In particular, it may enhance competition in electricity markets by creating opportunities for further investment in gas fired generators.

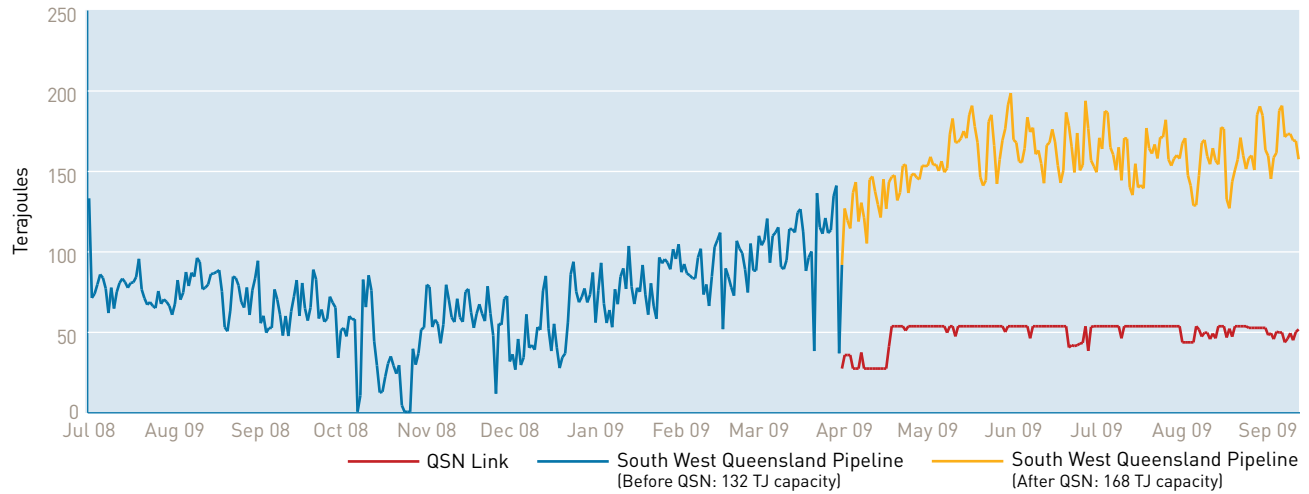
The extent to which new investment delivers competition benefits to customers depends on a range of factors, including the availability of natural gas and pipeline access from alternative sources. In particular, capacity constraints limit access on some pipelines. The Eastern Gas, SEA Gas and Roma to Brisbane pipelines, for example, have tended to operate at or near capacity in recent years. Access seekers must decide whether to try to negotiate a capacity expansion. For a covered pipeline, the regulator (or, in Western Australia, a separate arbitrator) may be asked to arbitrate a dispute over capacity expansions.

Table 9.4 Pipeline links between major gas basins and markets

MARKET / PIPELINES	GAS BASIN	PRODUCERS
SYDNEY AND CANBERRA		
Moomba to Sydney Pipeline (APA Group)	Cooper, Sydney	Santos, Beach Petroleum, Origin Energy, AGL Energy, Sydney Gas
Eastern Gas Pipeline (Singapore Power International), NSW–Vic Interconnect (APA Group)	Gippsland, Otway, Bass	BHP Billiton, ExxonMobil, Origin Energy, Santos AWE, Beach Petroleum
South West Queensland Pipeline/ QSN Link (Epic Energy)	Surat–Bowen	Origin Energy, Santos, Arrow Energy, BG Group, AGL Energy, ConocoPhillips, Petronas
MELBOURNE		
NSW–Vic Interconnect (APA Group)	Cooper (via MSP), Sydney	Santos, Beach Petroleum, Origin Energy, AGL Energy, Sydney Gas
Victorian Transmission System (APA Group)	Gippsland, Bass, Otway	BHP Billiton, ExxonMobil, Origin Energy, Santos AWE, Beach Petroleum
TASMANIA		
Tasmanian Gas Pipeline (Babcock & Brown Infrastructure)	Cooper (via MSP and NSW–Vic Interconnect), Gippsland, Otway, Bass	Santos, Beach Petroleum, Origin Energy
BRISBANE		
Roma to Brisbane Pipeline (APA Group)	Surat–Bowen	Mosaic, Origin Energy, Santos, BG Group, Arrow Energy, Mitsui, Molopo
ADELAIDE		
Moomba to Adelaide Pipeline (Epic Energy)	Cooper	Santos, Beach Petroleum, Origin Energy
SEA Gas Pipeline (APA Group, International Power, Retail Employees Superannuation Trust)	Otway and Gippsland	BHP Billiton, ExxonMobil, Origin Energy, Santos AWE, Beach Petroleum
South West Queensland Pipeline/ QSN Link (Epic Energy)	Surat–Bowen	Origin Energy, Santos, Arrow Energy, BG Group, AGL Energy, ConocoPhillips, Petronas
DARWIN		
Amadeus Basin to Darwin (96% APA Group)	Amadeus	Magellan, Santos
Bonaparte Pipeline (Energy Infrastructure Investments)	Bonaparte	ENI
PERTH		
Dampier to Bunbury Natural Gas Pipeline (DUET, Alcoa, Babcock & Brown Infrastructure)	Carnarvon, Perth	Apache Energy, BHP Billiton, BP, Chevron, ExxonMobil, Inpex, Kufpec, Santos, Shell, Tap Oil, Woodside Petroleum, ARC Energy, Origin Energy
Parmelia Pipeline (APA Group)	Perth	ARC Energy, Origin Energy

MSP, Moomba to Sydney Pipeline.

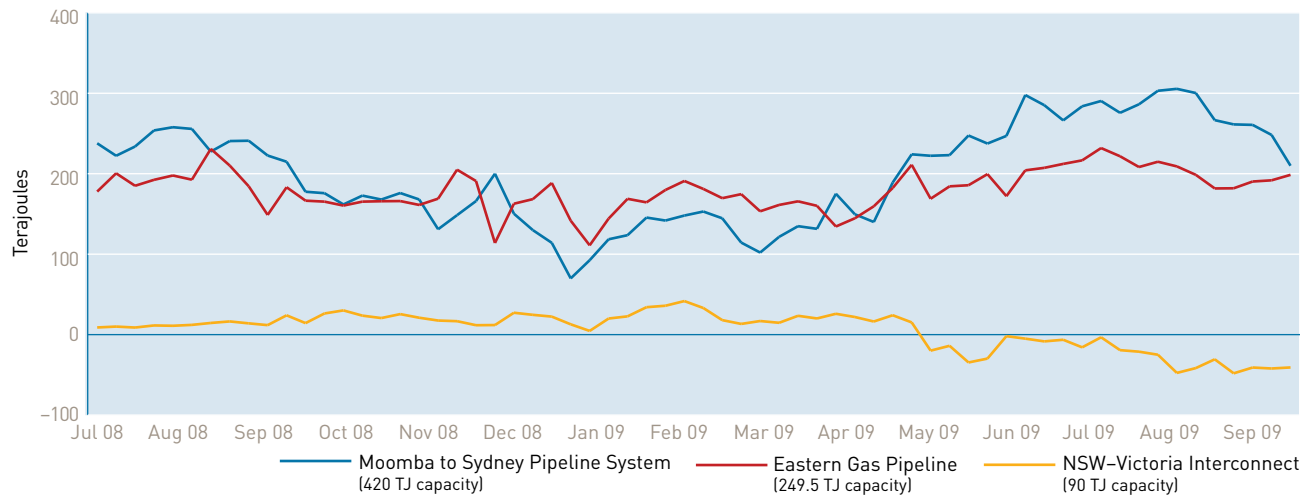
Figure 9.5
Gas flows on the South West Queensland Pipeline



Note: While the QSN Link was commissioned in January 2009, reporting of gas flows began on 31 March 2009.

Source: National Gas Market Bulletin Board, www.gasbb.com.au/AER.

Figure 9.6
Gas flows into New South Wales



Notes: Negative flows on the New South Wales – Victoria Interconnect represent flows out of New South Wales into Victoria.

Figure 9.7
Gas flows into Victoria

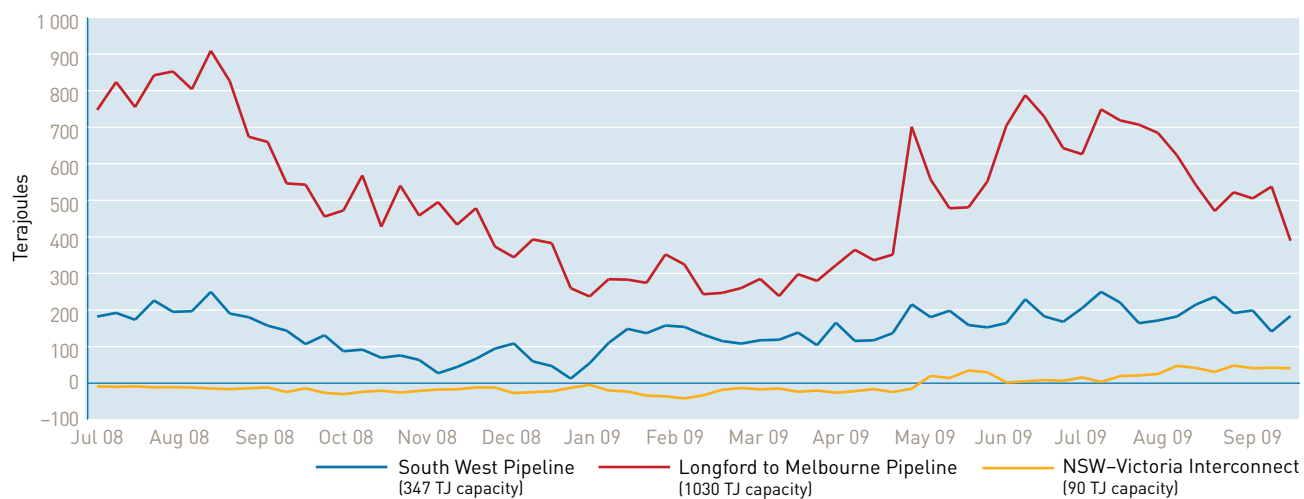
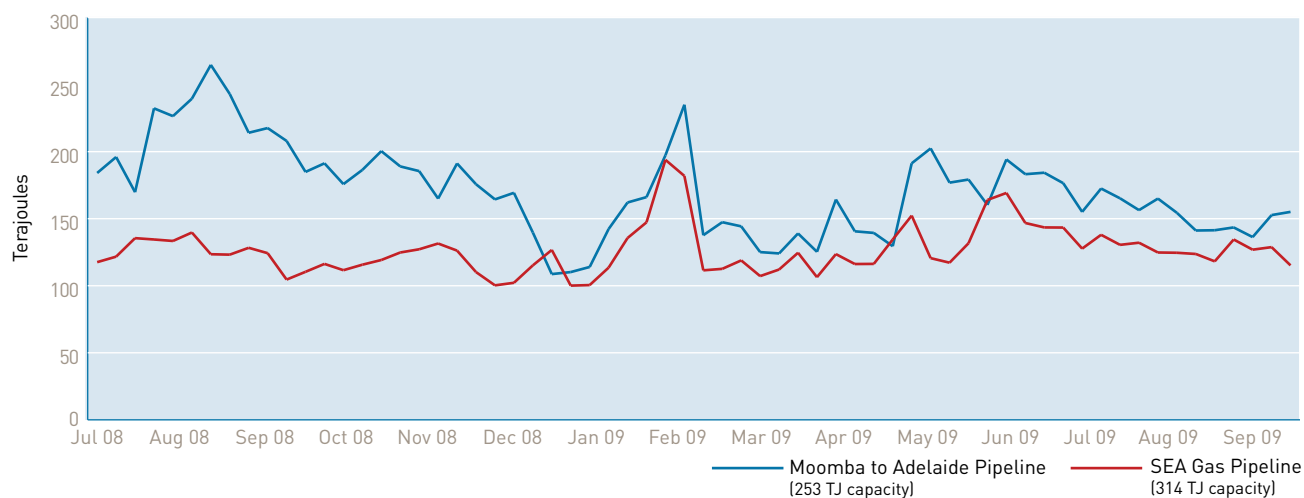


Figure 9.8
Gas flows into South Australia



Source (figures 9.6–9.8): Natural Gas Market Bulletin Board (www.gasbb.com.au) /AER.

9.5 Pipeline tariffs

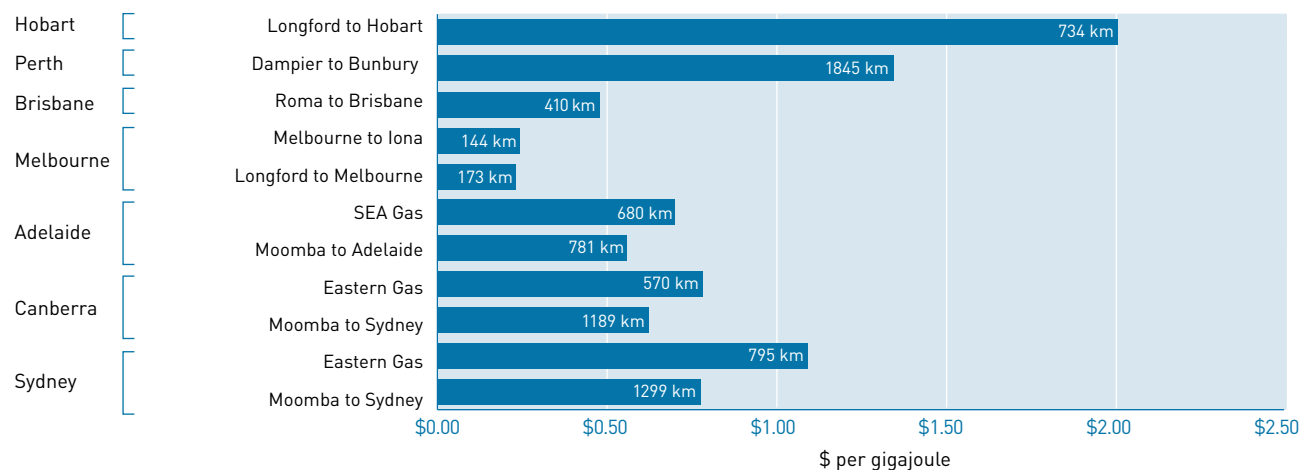
The Gas Law requires providers of covered pipelines to publish reference tariffs (prices) and other conditions of access. Service providers must maintain this information on their website, either within their approved access arrangement or separately. They are not required to disclose tariffs for non-covered pipelines, or negotiated tariffs (for covered pipelines) agreed outside the reference tariffs. Some operators publish these tariffs on a website or make them available on request to access seekers.

Figure 9.9 sets out EnergyQuest estimates of indicative pipeline tariffs on selected routes between gas basins and Australian capital cities. The tariffs reflect factors such as differences in transportation distances; underlying capital costs; the age and extent of depreciation on the pipeline; technological and geographic differences; and the availability of spare pipeline capacity. In general, it is cheaper to transport gas into Sydney, Canberra and Adelaide from the Cooper Basin than from the Victorian coastal basins.

In practice, pipeline tariffs may vary considerably from the indicative tariffs in figure 9.9. An access seeker can try to negotiate discounts against published rates. Some tariffs may be higher than those in figure 9.9, especially if a pipeline is capacity constrained and requires an expansion to make access possible. Tariffs for interruptible services²¹ are typically 30 per cent higher than those for firm transportation charges, but are paid on the actual quantities shipped rather than on reserved capacity.²²

The key consideration for customers is the cost of delivered gas—the bundled cost of gas and transportation services—from alternative sources. The lead essay of the *State of the energy market 2008* report provided ACIL Tasman estimates of the composition of delivered gas prices in mainland state capital cities.²³ Retail prices ranged from around \$15.50 per gigajoule in Melbourne to almost \$28 per gigajoule in Brisbane. Transportation through the high pressure transmission system is the smallest contributor to delivered costs for residential consumers. Transmission charges range from around 2 per cent

Figure 9.9
Indicative pipeline tariffs to major centres



Note: Distances are indicative.

Source: EnergyQuest, *Energy Quarterly*, August 2009.

21 Interruptible services are provided intermittently, depending on available pipeline capacity.

22 NERA, *The gas supply chain in eastern Australia*, Sydney, June 2007, pp. 42 and 52. Chapter 8 of this report discusses backhaul arrangements.

23 The report is available on the AER website, www.aer.gov.au.

of delivered gas prices in Adelaide and Melbourne to 7 per cent in Perth. For larger industrial customers, this proportion rises steadily with scale because the fixed costs associated with downstream services are spread across larger gas supply volumes.

9.6 Performance indicators

Performance data for the gas transmission sector are limited. Historically, performance reports have not been published for covered pipelines, although the Gas Law enables the AER to publish such reports in the future. Regulatory decisions on access arrangements include some historical data, as well as forward projections.

The financial data available on transmission pipelines comprise mainly financial forecasts in regulatory determinations for a small number of covered pipelines. The *State of the energy market 2008* report reproduces some of the limited available data.²⁴ There has been little historical reporting of service quality outcomes.

As noted, the owners of non-covered pipelines are not required to report publicly on historical performance or projected outcomes. The Gas Market Bulletin Board is increasing public information about transmission pipelines, including capacity and supply information. It covers most transmission pipelines in southern and eastern Australia, including non-covered pipelines.²⁵

24 AER, *State of the energy market 2008*, Melbourne, 2008, section 9.6.

25 Section 8.7.2 of this report provides further information on the bulletin board.