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BEYOND THE NATIONAL ELECTRICITY MARKET



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Western Australia and the Northern Territory have electricity markets that are not interconnected with the National Electricity Market. Western Australia introduced a new wholesale electricity market in 2006. The Northern Territory has no wholesale market competition.

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BEYOND THE NATIONAL ELECTRICITY MARKET

4.1 Western Australia's electricity system

Reflecting Western Australia's geography, industry and demographics, the state has several distinct electricity infrastructure systems (figure 4.1). The South West Interconnected System (SWIS) supplies 840 000 retail customers in the south west, including Perth. It has 5134 megawatts (MW) of installed generation capacity, 6000 kilometres of transmission lines and 85 000 kilometres of distribution lines. Western Australia introduced a wholesale electricity market in the SWIS in September 2006 (see section 4.5).

The North West Interconnected System (NWIS) operates in the north west of the state and centres on the industrial towns of Karratha and Port Hedland, and resource centres. It has a generation capacity of about 400 MW, mainly fuelled by natural gas. Given its small scale, the NWIS has no foreseeable plans to adopt a wholesale market in the manner of the SWIS.

In addition, 29 non-interconnected distribution systems operate around towns in rural and remote areas beyond the SWIS and NWIS networks.

4.2 Electricity reform in Western Australia

In 1993, when Australian governments decided to create a national electricity market, it was considered impractical for Western Australia to join. Geography dictated that the state's networks could not physically interconnect with the other jurisdictions.

Consistent with the eastern and southern states, Western Australia's electricity industry was historically dominated by a single, vertically integrated utility under government ownership. Western Australia retained this structure for almost a decade longer than other jurisdictions did. The lack of competition, combined with relatively high generation costs (due to relatively expensive coal sources and the remoteness of major gas fields), led to high wholesale electricity prices.

From 2003 the Western Australian Government launched a series of reforms. The central reform, undertaken in 2006, was the disaggregation of the state electricity utility into four separate entities:

- > Verve Energy—generation
- > Western Power—transmission and distribution networks
- > Synergy—retail
- > Horizon Power—integrated supply in regional areas.

The government also:

- > established a wholesale electricity market in 2006 (see section 4.5)
- > established an Electricity Networks Access Code in 2004 for access to transmission and distribution networks (see section 4.6)
- > extended the retail contestability threshold in 2005 to all customers using more than 50 megawatt hours (MWh) per year (see section 4.7)

4.3 Western Australia's electricity market structure

Western Australia's electricity market retains a relatively concentrated ownership structure, with state owned utilities being prominent across the supply chain. In the SWIS—the principal electricity system—the state owned Western Power owns the bulk of transmission and distribution systems. Another state owned utility—Verve Energy—owns about two thirds of generation capacity. The balance is privately owned and mainly dedicated to resource projects.

The introduction of a wholesale market in 2006 led to new generator entry and greater ownership depth. Verve Energy's share of installed generation capacity will fall from around 77 per cent in 2007–08

to 60 per cent in 2010–11.¹ In particular, three new participants—NewGen Power, Griffin Power and Alcoa—have acquired (or will acquire) significant capacity. Table 4.1 illustrates the extent of new entry since 2006. Table 4.2 summarises recent investment activity.

Despite new entry, all but one of the new generation plants scheduled by 2010–11 has been contracted to the state owned retailer, Synergy.² The absence of full retail competition in Western Australia means Synergy supplies all retail customers in the SWIS (including small business and residential consumers) using up to 50 MWh of electricity per year. The Economic Regulation Authority (ERA) considers the absence of a clear timetable for full retail contestability may deter new entry in retail and generation.³

The Office of Energy commenced a review in 2008 of the costs and benefits of introducing full retail contestability, but at 1 July 2009 had not made any recommendations. The ERA has described the current arrangements in generation and retail as leading to a 'quasi bilateral monopoly market structure'.⁴

The Western Australian Government expects further new entry and the phasing out of vesting contracts to reduce the market share of state owned corporations over time.⁵ In addition, the government:

- > has placed a 3000 MW cap on Verve Energy's ability to invest in new generation plant, to allow independent generators to increase their market share over time
- > restricted Synergy from generating electricity, and Verve Energy from retailing electricity, until at least 2013.

1 ERA (Western Australia), *Annual wholesale electricity market report for the Minister for Energy*, Perth, 2008, p. vii.

2 ERA (Western Australia), *Annual wholesale electricity market report for the Minister for Energy*, Perth, 2008, p. 45.

3 ERA (Western Australia), 'Energy market reform in WA—a progress report', Presentation by Lyndon Rowe to the WA Power & Gas 2009 Conference, Perth, 17 and 18 February 2009, p. 4.

4 ERA (Western Australia), 'Energy market reform in WA—a progress report', Presentation by Lyndon Rowe to the WA Power & Gas 2009 Conference, Perth, 17 and 18 February 2009, p. 4.

5 The vesting contracts relate to the wholesale supply of electricity by Verve Energy to Synergy in the SWIS. The arrangements were intended as a transitional measure to ensure Synergy could meet the sales obligations it inherited in 2006 from former integrated utility Western Power.

Figure 4.1
Electricity infrastructure map—Western Australia



Source: ERA (Western Australia).

Table 4.1 Participants in Western Australia’s wholesale electricity market

PARTICIPANT	GENERATORS		CUSTOMERS	
	2006	2009	2006	2009
Alcoa				
Alinta Sales Pty Ltd				
Barrick (Kanowna) Limited				
Bioenergy Limited				
Clear Energy Pty Ltd				
Coolimba Power Pty Ltd				
EDWF Manager Pty Ltd				
Eneabba Gas Limited				
Eneabba Energy Pty Ltd				
Energy Response Pty Ltd				
Goldfields Power Pty Ltd				
Griffin Power Pty Ltd				
Griffin Power 2 Pty Ltd				
Karara Energy Pty Ltd				
Landfill Gas and Power Pty Ltd				
Mount Herron Engineering Pty Ltd				
Namarkkon Pty Ltd				
NewGen Neerabup Pty Ltd				
NewGen Power Kwinana Pty Ltd				
Newmont Power Pty Ltd				
Perth Energy Pty Ltd				
Premier Power Sales Pty Ltd				
SkyFarming Pty Ltd				
South West Cogeneration Joint Venture				
Southern Cross Energy				
Synergy				
Transalta Energy (Australia)				
Transfield Services Kemerton Pty Ltd				
Verve Energy				
Walkaway Wind Power Pty Ltd				
Waste Gas Resources Pty Ltd				
Water Corporation				
Worsley Alumina				

Source: ERA (Western Australia).

Table 4.2 Investment in the South West Interconnected System from 2006

PARTICIPANT	INVESTMENT
Alinta Sales	280 MW OCGT power station at Pinjarra (acquired by BBP August 2007)
	380 MW OCGT power station at Wagerup (acquired by BBP August 2007)
Stanwell/Griffin	80 MW wind farm at Emu Downs opened October 2006
Griffin Energy	200 MW Bluewaters 1 coal fired plant commissioned in 2009
	200 MW Bluewaters 2 coal fired plant under construction for end 2009
	330 MW North Peak gas fired plant near Neerabup proposed for 2010-11
NewGen Power Kwinana	320 MW Kwinana combined cycle gas plant opened November 2008
Western Australian Biomass	40 MW boiler/steam turbine power station fired by biomass to begin operation in 2009-10
Eneabba Gas	168 MW Centauri 1 gas fired plant near Eneabba scheduled to begin operation in 2009
Western Energy	80 MW Kwinana combined cycle gas fired plant due 2010
Aviva	400 MW Coolimba coal fired plant near Eneabba due 2012
ATCO Power	86 MW Karratha gas fired plant under construction for 2010
Western Power	\$3.5 billion on network improvements from 2008, including:
	> 330 kV transmission line from Pinjar to Moonyoonooka
	> 330 kV transmission line from Collie to Perth's eastern suburbs
	> new transmission capacity, including new substations at Wangara, Joondalup, Warwick and Thornlie
	> expansion of distribution network's capacity

BBP, Babcock & Brown Power; kV, kilovolt; OCGT, open cycle gas turbine.

Principal sources: IMO (Western Australia), Office of Energy (Western Australia).

In 2008 a possible merger between Verve Energy and Synergy was considered. The Western Australian Government decided in August 2009 not to proceed with the merger.⁶

In regional Western Australia, Horizon Power is a vertically integrated utility responsible for the generation (or its procurement), transmission, distribution and retailing of electricity to customers in the NWIS and in 29 smaller non-interconnected systems. Horizon Power buys power from a number of private generators in the Pilbara, including Hamersley Iron's 120 MW generation plant at Dampier, Robe River's 105 MW plant at Cape Lambert and Babcock & Brown Power's 175 MW plant at Port Hedland.

4.4 Electricity generation in Western Australia

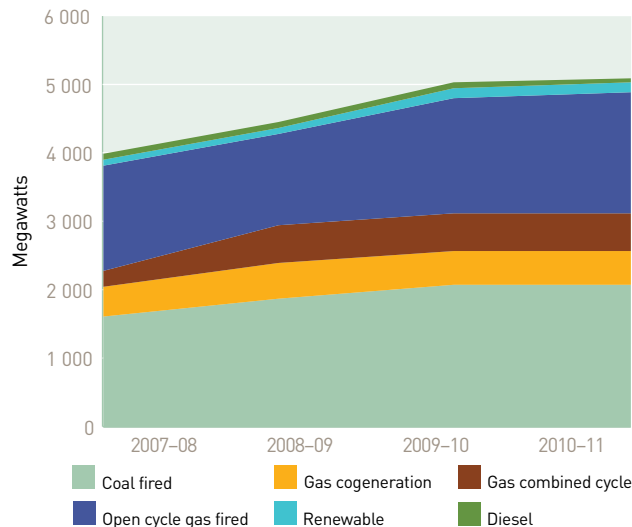
Statewide, around 60 per cent of installed generation capacity is fuelled by natural gas and 35 per cent by coal (figure 4.2). Gas is used in base load cogeneration plants and peaking units. Generation from renewable sources has grown, with wind accounting for around 63 per cent, and hydro and biomass comprising most of the balance. Renewable sources fuelled about 3.8 per cent of statewide generation in 2007-08. In the SWIS, generation from renewables increased seven-fold between 2003 and 2008, and now supplies around 5 per cent of electricity demand.⁷

The Western Australian Government has set a target of 6 per cent of electricity to be sourced from renewable energy by 2010. The biomass plant scheduled for commissioning in December 2009 is expected to lift the share of renewable energy production above this target.

6 Peter Collier (Minister for Energy, Western Australia), 'State's energy future outlined', Media release, 26 August 2009.

7 Sustainable Energy Development Office (Western Australia), *Renewable energy*, fact sheet, Perth, 2008.

Figure 4.2
Installed generation capacity—Western Australia's south west



Note: Data are for the South West Interconnected System, covering Perth and other major centres in the south west of the state.

Source: IMO (Western Australia).

4.5 Western Australia's wholesale electricity market

In September 2006 Western Australia launched a wholesale electricity market in the SWIS. A combination of bilateral contracts, a day-ahead short term energy market (STEM) and a balancing market facilitate energy trading. The market was designed to suit Western Australian conditions and differs considerably from the National Electricity Market (NEM) (see chapter 2):

- > The Independent Market Operator (IMO), a government entity established in 2004, is the rule development body and market operator.⁸ It has no commercial interest in the market and no connection with any market participant.
- > The physical system operator, System Management, is a ring-fenced entity within Western Power that is tasked with maintaining the safe, secure and reliable operation of the power system. It is responsible for the operation and control of generators, transmission and distribution networks, and large customer retailer supply management.

⁸ Information on the market can be found on the IMO website (www.imowa.com.au).

4.5.1 Market design

Figure 4.3 illustrates the key elements of Western Australia's wholesale market in the SWIS.

The following are the three main areas of difference between the market design for the SWIS and the NEM in eastern and southern Australia:

- > gross pool versus net pool
- > capacity market arrangements
- > ancillary services.

Gross pool versus net pool

The NEM is a gross pool in which the sale of all wholesale electricity occurs in a spot market. NEM participants also enter formal hedge contracts to manage spot market risk. In contrast, energy in the SWIS is traded mainly through bilateral contracts outside the pool. These contracts may be entered into years, weeks or days before supply. Before the trading day, generators must inform the IMO of the quantity of energy to be sold under bilateral contracts, and to whom it will be sold, to enable the IMO to schedule that supply.

In the lead-up to dispatch, System Management issues instructions to ensure supply equals demand in real time. Dispatch, rather than being on a least cost basis, reflects mainly the contract positions of participants. Generators submit daily resource plans that inform the IMO of how their facilities will be used to meet their contract positions. They are obliged to follow these plans, unless dispatch instructions replace the plans. Verve Energy's facilities are scheduled around the resource plans of other generators. If it appears supply will not equal demand, the IMO will schedule Verve Energy generation first, then issue dispatch instructions to other market participants as necessary.

Beyond bilateral contracts, a day-ahead STEM and a balancing market are used to trade wholesale electricity (figure 4.3). The STEM supports bilateral trades by allowing market participants to trade around their contract positions a day before energy is delivered. If, for example, a generator does not have sufficient

capacity to meet its contracted position, then it can bid to purchase energy in the STEM. Participating generators must offer generation plant at short run marginal cost. Each morning, market participants may submit to the IMO bids to purchase energy and/or offers to supply energy.⁹ The IMO then runs an auction, in which it takes a neutral position to determine a single price for each trading interval of the day.

A market participant's actual supply or consumption of electricity during a trading interval may deviate from its net contract position (the sum of its bilateral position and STEM trades), given unexpected deviations in demand and unplanned plant outages. The shortfall or surplus is traded on the balancing market. The IMO calculates balancing prices, which for Verve Energy plant are generally equal to the short run marginal cost of the last unit dispatched. Any independent power producer plant dispatched for balancing or ancillary service provision is 'paid as bid'.

Capacity market

The SWIS market includes both an energy market (the STEM) and a capacity market (figure 4.3). The capacity market is intended to provide incentives for investment in generation to meet peak demand. In particular, it is intended to provide sufficient revenue for investment without the market experiencing high and volatile energy prices. The IMO administers a reserve capacity mechanism to ensure there is adequate installed capacity to meet demand. It determines how much capacity is required to meet peak demand each year, and allocates the costs of obtaining the necessary capacity to buyers (mostly retailers).

Generators are assigned capacity credits, which entitle them to payments for offering their capacity to the market at all times. The IMO assigns credits to generators that intend to trade their capacity

bilaterally. If insufficient reserves are obtained through this process, the IMO runs an auction to allocate the additional capacity credits.

The market made monthly payments of \$10 625 per MW of capacity from market start to 1 October 2008. For the 12 months from 1 October 2008, generators received a monthly payment of \$8152 per MW of capacity. This amount rose to \$9038 per MW of capacity for the 12 months from 1 October 2009.¹⁰ The payments are intended to cover the fixed costs of an open cycle peaking gas turbine and to partly cover the capital costs of base load units.

The NEM has no capacity market. Instead, generators are paid only for energy sent out, and a high price cap provides incentives to invest in generation and establish demand-side responses. The provision of capacity payments means spot energy prices in Western Australia are unlikely to peak as high as NEM prices to stimulate investment.

There are two energy price limits in the STEM: a maximum price for supply other than that from plant running on liquid fuel; and an alternative maximum STEM price (AMSP) based on supply from all facilities. The maximum price is based on the marginal cost of an open cycle gas turbine using natural gas as fuel. It is adjusted annually. For the year to 1 October 2008, the cap was \$206 per MWh. For the year to 1 October 2009, the cap was \$286 per MWh. In comparison, the NEM operates with a price cap of \$10 000 per MWh. The AMSP is adjusted monthly based on movements in the Singapore Crude Oil price. It peaked in September 2008 at \$779 per MWh.

9 To receive reserve capacity payments, generators must offer all registered capacity to the STEM.

10 Information on capacity credits can be found on the IMO website (www.imowa.com.au).

Figure 4.3
Western Australia's wholesale electricity market



Source: IMO (Western Australia).

The IMO determines annual reserve capacity requirements and releases an annual statement of opportunities report covering 10 years. The ERA must approve the IMO's proposed maximum reserve capacity price and energy price caps in the short term market.

Figure 4.4 summarises the demand and capacity outlook for 2010–11 at 2008. The IMO has set a reserve capacity target for 2010–11 of 5146 MW. To meet this target, 226 MW of new generation and demand-side management capacity will be required beyond that already in place or under construction.¹¹

Ancillary services

The NEM has eight frequency control ancillary services spot markets in which participants may bid to provide services. Network control ancillary services are procured through long term contracts. In contrast, the SWIS has no spot markets for ancillary services; rather, System Management determines ancillary services requirements and procures them from Verve Energy or other participants under contract arrangements.

11 IMO (Western Australia), *State of opportunities*, Perth, 2008, p. 4.



Western Power

Figure 4.4
Western Australia's demand and capacity outlook for 2010–11, at 2008



Source: IMO (Western Australia).

4.5.2 Market outcomes

While it is too early to assess the outcomes of the Western Australian energy market, developments can be observed. The number of market participants is increasing, with new retailers and generators entering the market. Table 4.2 shows there has been strong interest in investment in the energy market, including in renewable energy. There is evidence of more varied plant sizes, technologies and fuel types, as well as cost-efficient plant upgrades. The ERA stated, however, that resourcing constraints within Western Power are delaying some generation investment.¹²

Another outcome has been the introduction of more cost-reflective prices in the STEM, which reflect the cost of energy during system peaks and short term pressures such as fuel shortages and strong demand. There is less cost reflectivity in the retail market, however, where gazetted tariffs have applied for several years.¹³

Trading activity in the STEM and balancing market typically ranged from about 4 per cent to 6 per cent of total sales in the first year of the market's operation (2006–07). More recently, STEM trades have risen, largely between generators seeking access to lower cost plant. In 2008–09 the volume of energy traded in the STEM and balancing market ranged from about 6 per cent to 14 per cent of total sales (figure 4.5).

On most days, the number of market participants placing STEM bids fluctuates between four and seven. While Verve Energy accounts for a majority of capacity in the market, other participants have also been active. In contrast, the level of competition in the bilateral contract market is difficult to gauge because such contracts are confidential.

The ERA stated it is not aware of outcomes in the STEM that indicate market power is an issue. It has raised concerns, however, about:

- > the appropriateness of the investment signals provided by the market
- > the appropriateness of the timing of the reserve capacity mechanism and whether this can create barriers to investment for facilities with long lead times
- > whether the timing of planned network outages has an impact on the effectiveness of the market
- > whether there are barriers to the participation of consumers in demand-side management programs.¹⁴

Price outcomes

Price outcomes in the STEM and balancing markets provide transparent price signals on the cost of electricity. The mean peak STEM price from market start to 31 July 2008 was \$80.20 per MWh, while the mean off-peak price was \$38.10 per MWh.¹⁵

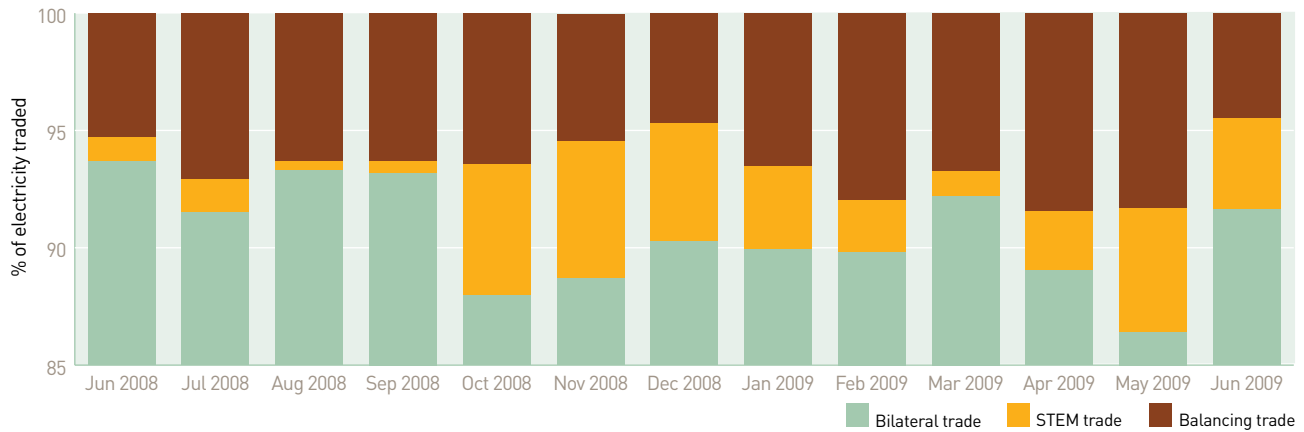
12 ERA (Western Australia), *Annual wholesale electricity market report for the Minister for Energy*, Perth, 2008, p. viii.

13 See section 4.7.

14 ERA (Western Australia), *Annual wholesale electricity market report for the Minister for Energy*, Perth, 2007, p. viii.

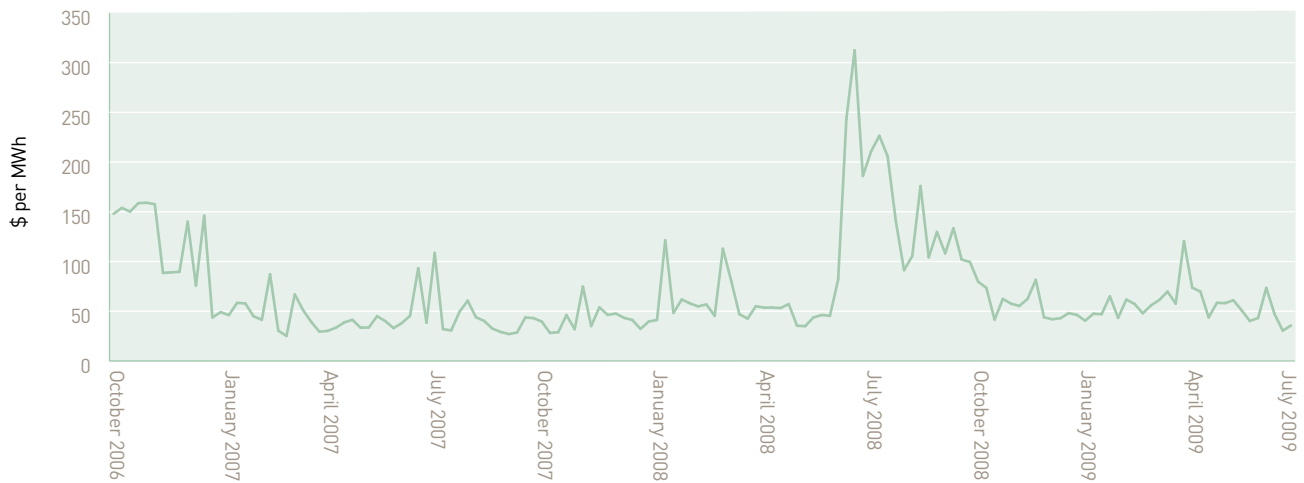
15 ERA (Western Australia), *Annual wholesale electricity market report for the Minister for Energy*, Perth, 2008, p. 10.

Figure 4.5
Composition of electricity trading in the Western Australian market



Source: IMO (Western Australia).

Figure 4.6
Weighted average weekly prices—Western Australia’s short term energy market



Source: IMO (Western Australia).

Figure 4.6 shows the weighted average weekly STEM prices from market start to June 2009. The early high prices were due to fuel restrictions and low generator availability. Prices then followed a fairly regular seasonal pattern—with summer and winter peaks—until May 2008. In June 2008 gas shortages caused by an explosion at the Varanus Island plant led to soaring gas

prices. Given natural gas fuels a majority of Western Australia’s generation plant, this flowed through to record wholesale electricity prices. Average daily prices peaked on 26 June 2008 at \$429 per MWh.¹⁶ Prices eased in late 2008 as the gas constraints were addressed, but remained above historical seasonal levels in early 2009.

16 ERA (Western Australia), *Annual wholesale electricity market report for the Minister for Energy*, Perth, 2008, p. 11.

4.6 Network access in Western Australia

In 2004 Western Australia implemented the Electricity Networks Access Code for access to transmission and distribution network services. The code covers only Western Power's networks within the SWIS, but other networks may be covered in the future if they meet the access regime's coverage tests. In July 2006 the Australian Government certified the code as an effective access regime under the *Trade Practices Act 1974*.

The ERA administers the code, which prescribes commercial arrangements, including access charges that electricity generators and retailers must pay to use Western Power's networks. The regulatory framework sets out criteria for the ERA's acceptance or rejection of an access arrangement that the service provider proposes.

The ERA in 2007 approved Western Power's first access arrangement under the code, covering the three year period from 2006–07. In July 2009 it released a draft decision on Western Power's access arrangement for the three year period from 2009–10.

Chapters 5 and 6 of this report include some data on the Western Power networks, including performance outcomes.

4.7 Retail arrangements in Western Australia

In January 2005 Western Australia extended retail contestability to electricity customers using at least 50 MWh per year. In the SWIS, all customers using less than 50 MWh per year are served by Synergy, the state owned energy retailer. Horizon Power serves most customers outside the SWIS. In 2008 the state's Office of Energy commenced a review of the costs and benefits of introducing full retail contestability, but it had not released its findings as of 1 July 2009.

Regulated retail tariffs in the SWIS are set at levels that are well below costs. In January 2009 the Office of Energy recommended residential tariffs increase by 52 per cent in 2009–10 and a further 26 per cent in 2010–11, to reflect substantial increases in the cost of supplying electricity.¹⁷ In February 2009 the Western Australian Government rejected these recommendations and announced domestic electricity charges would rise by 10 per cent on 1 April 2009, followed by a rise of 15 per cent in July 2009.¹⁸ The ERA noted that retailers will not be able to compete with Synergy for those customers that have the option of remaining on below-cost regulated tariffs. It considers this outcome is likely to preserve a concentrated retail sector.¹⁹

Chapter 7 of this report further details Western Australia's electricity retail market.

4.8 The Northern Territory's electricity industry

The Northern Territory's electricity industry is small, reflecting its population of around 220 000, of whom only around 82 500 are connected to a network. There are three relatively small regulated systems,²⁰ of which the largest is the Darwin–Katherine system, with a capacity of around 320 MW (figure 4.7). The total capacity of the Territory's regulated systems was 444 MW at 30 June 2008, after the commissioning of the first generator at the Weddell Power Station. In 2007–08 the Territory consumed around 1795 gigawatt hours of electricity.

The Territory uses gas fired plant to generate public electricity, sourcing gas from the Amadeus Basin in Central Australia. The Amadeus fields cannot sustain increasing demand, however, and many contracts for gas supply are due to end in 2009. In some cases, diesel has been used at considerable cost to meet gas supply shortfalls.

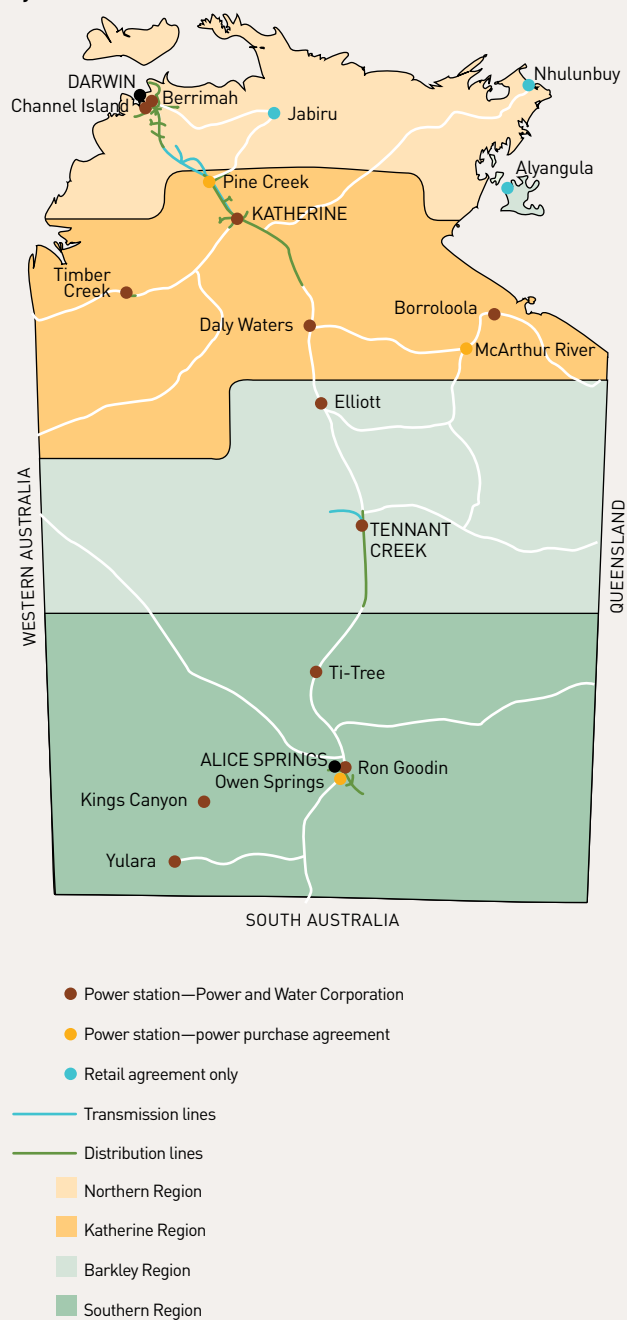
17 Office of Energy (Western Australia), *Electricity Retail Market Review, Final recommendations report—review of electricity tariff arrangements*, Perth, 2009, p. 2.

18 Peter Collier (Minister for Energy, Western Australia), 'State Government announces increases in tariff arrangements', Media release, 23 February 2009.

19 ERA (Western Australia), 'Energy market reform in WA—a progress report', Presentation by Lyndon Rowe to the WA Power & Gas 2009 Conference, Perth, 17 and 18 February 2009, p. 3.

20 The Darwin–Katherine, Alice Springs and Tennant Creek systems.

Figure 4.7
Northern Territory electricity system



Source: Power and Water Corporation.

A new source of gas supply from late 2009 will be the Blacktip Field in the Joseph Bonaparte Gulf. The gas will come onshore to a processing plant near Wadeye, then will be transported by the Bonaparte Gas Pipeline (which connects to the existing Amadeus Basin-to-Darwin Pipeline). Delays in the construction of the processing plant postponed the first supply of gas from the Blacktip Field, which was scheduled for 1 January 2009. Once the processing plant is complete, this arrangement is expected to meet the Territory's gas demand for the next 25 years.²¹

4.8.1 Market arrangements

Given the scale of the Northern Territory market, a wholesale electricity spot market was not considered feasible. Rather, the Territory uses a 'bilateral contracting' system whereby generators are responsible for dispatching the power that their customers require.

The industry is dominated by a government owned corporation, Power and Water, which owns the transmission and distribution networks. Power and Water is also the monopoly retail provider and generator. In addition, it is responsible for power system control. Six independent power producers in the resource and processing sector generate their own requirements and also generate electricity under contract with Power and Water.

From around 2000 the Northern Territory Government introduced measures to open the electricity market to competition:

- > It commenced a phased introduction of retail contestability, scheduled for completion by April 2005 but later rescheduled for April 2010 (see below).
- > It corporatised the vertically integrated electricity supplier (Power and Water) and ring-fenced its generation, power system control, network and retail activities.

- > It allowed new suppliers to enter the market.
- > It established an independent regulator, the Utilities Commission, to regulate monopoly services and monitor the market.
- > It introduced a regulated access regime for transmission and distribution services. In 2002 the Australian Government certified the regime as effective under the Trade Practices Act. In March 2009 the Utilities Commission made its third five year determination on network access arrangements (for 2009-10 to 2013-14).

There has been one new entrant in generation and retail since the reforms: NT Power, which acquired some market share. It withdrew from the market in September 2002, however, citing its inability to source ongoing gas supplies for electricity generation. In light of this withdrawal, the Northern Territory Government suspended the contestability timetable in January 2003, effectively halting contestability at the 750 MW per year threshold until prospects for competition re-emerge. A single subsequent applicant was not granted an electricity retail licence due to the applicant's 'inability to meet reasonably foreseeable obligations for the sale of electricity'.²² The introduction of full retail contestability is scheduled for April 2010.

When Power and Water reverted to a retail monopoly, the government approved prices oversight by the Utilities Commission of Power and Water's generation business for as long as the business is not subject to a tangible threat of competition. The government regulates tariffs for non-contestable customers via electricity pricing orders. The Utilities Commission regulates service standards, including standards for reliability and customer service.

21 Power and Water Corporation, *Annual report 2008*, Darwin, 2008, p. 18.

22 Department of Business, Economic and Regional Development (Northern Territory Government), *The NT electricity, water and gas supply sector*, fact sheet, Darwin, 2005.