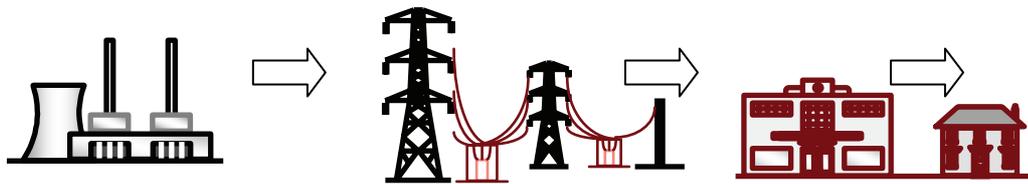


Electricity Industry Overview

GOVERNMENT CORPORATIONS

The Government's corporations in the New South Wales electricity industry are:

Generators	Transmission	Distribution and Retail
Macquarie Generation Delta Electricity Eraring Energy	TransGrid	EnergyAustralia Integral Energy Australia Country Energy



KEY ISSUES

Restructure of Electricity Industry

The Government's package for restructuring the electricity industry was withdrawn in August 2008. The Government is currently working on a revised package of reform based on the following principles:

- withdrawal of the Government from the electricity retail market where three State owned corporations compete against numerous private vendors
- sale of potential power station development sites to private operators, to encourage them to build new power stations to meet New South Wales growth
- retaining Government ownership of distribution and transmission network businesses
- retaining State owned power generation corporations.

The Government believes these changes will help spur private investment in new baseload generation capacity for New South Wales.

In our report 'Oversight of Electricity Industry Restructuring' August 2008, we commented on the Government's intended electricity restructure strategy. Some of the findings in that report are relevant for the Government's revised proposal. They are:

- encouraging new entrants and new investment to promote competition in the electricity generation and retail markets by:
 - using simultaneous rather than sequential sale transactions, and
 - holding separate tender(s) for generation development site(s)
- calculating retention values for each transaction using consistent assumptions prior to commencing each transaction
- documenting contingency plans prior to commencing the first transaction which will include the setting of a reserve price for each transaction, and considerations if the reserve price is not achieved

- requesting The Treasury to continuously evaluate:
 - the restructuring process after its marketing effort and before the first transaction, and
 - the likelihood of the success of subsequent transactions and whether contingency plans are required to be implemented.

A full copy of our report to Parliament can be found at:

www.audit.nsw.gov.au/publications/reports/special_reviews/pdf/oversight_of_electricity_industry_restructuring.pdf

The Government's original restructure strategy proposed the sale/lease of the generators' assets, including development sites. The coal-fired generation assets are now to remain in Government ownership.

Carbon Pollution Reduction Scheme (CPRS)

We recommend that governing boards of electricity corporations implement an appropriate framework to address the governance implications of the CPRS when finalised. Boards should ensure they have the right strategies and processes to monitor their corporation's overall response and performance in addressing climate change risks and opportunities.

All Australian businesses, including all electricity corporations in the New South Wales Public Sector, will be affected directly or indirectly by the Federal Government's proposed CPRS.

The Federal Government's Green Paper on the design of a national emissions trading scheme was released in July 2008. Details of the process and operational procedures are expected in the legislation that is likely to be released in December 2008 for public comment. The CPRS proposed start date is 1 July 2010, but there are transitional arrangements to ease some sectors into the scheme.

Approximately 1,000 businesses with large emissions will face direct obligations under the CPRS. Other businesses will be affected indirectly through costs (increased energy cost), risks (less certainty regarding future energy costs) and opportunities (providing low-carbon services, funding for low emissions technology etc).

The key design features of the CPRS relevant to New South Wales include:

Electricity Sector Adjustment Scheme (ESAS)

The Federal Government's Green Paper proposes to provide limited direct assistance to the coal-fired generation sector through ESAS, including assistance to affected communities and workers. The objectives of ESAS are to underpin investor confidence in the generation sector and ensure energy supply security, including measures that support low-emissions production.

Climate Change Action Fund (CCAF)

The Federal Government's Green Paper proposes the creation of the CCAF to assist businesses transition to a cleaner economy. CCAF will provide partnership funding for a range of activities including; capital investment in innovative new low emissions processes; industrial energy efficiency projects with long pay back periods; and dissemination of best and innovative practice among small to medium sized enterprises.

Other proposed assistance includes compensation for emission-intensive trade-exposed (EITE) businesses in the form of free permits.

Regulation - Compliance and Enforcement

Robust monitoring, reporting and assurance over emissions data will be imperative for a high level of market confidence. The CPRS proposals include maintaining and building on the current emissions reporting requirements under the *National Greenhouse Gas and Energy Reporting Act 2007* (NGER). A single body will be responsible for regulating both NGER and CPRS. The CPRS also proposes that larger emitters, with over 125,000 tonnes of greenhouse gas emissions a year, will be required to seek assurance from an accredited independent third party over the accuracy of their annual emissions prior to submitting the information to the Federal Government. Other smaller emitters may be subject to audit at the discretion of the regulator.

Electricity Prices

Electricity wholesale prices in the National Electricity Market (NEM) decreased during 2007-08 compared to the high prices in 2006-07. The average spot price for 2007-08 in New South Wales was \$41.66 per megawatt hour (MWh), a fall of 29 per cent from the 2006-07 average of \$58.72 per MWh.

Average annual wholesale spot prices of electricity:

Year ended 30 June	NSW \$/MWh	Qld \$/MWh	SA \$/MWh	Snowy \$/MWh	Tas \$/MWh	Vic \$/MWh
2008	41.66	52.34	73.50	45.49	54.68	46.79
2007	58.72	52.14	51.61	55.19	49.56	54.80
2006	37.24	28.12	37.76	31.09	56.76	32.47
2005	39.33	28.96	36.07	34.05	190.38	27.62
2004	32.37	28.18	34.86	30.80	(a)	25.38
2003	32.91	37.79	30.11	29.83	(a)	27.56

Source: NEMMCO price statistics average annual prices per financial year.

(a) Tasmania entered the National Electricity Market on 29 May 2005, and became an active participant on 29 April 2006.

The average price per MWh for June 2008 (\$41.82 per MWh) was significantly lower than June 2007 (\$230.66 per MWh) resulting from reduced constraints (including drought) on generating capacity and decreased demand across the NEM.

The June average price per MWh was:

June	NSW \$/MWh	Qld \$/MWh	SA \$/MWh	Snowy \$/MWh	Tas \$/MWh	Vic \$/MWh
2008	41.82	41.13	40.11	42.27	55.96	42.04
2007	230.66	192.45	102.63	198.23	77.81	143.28
2006	31.47	25.25	39.22	32.35	41.39	34.61

Source: NEMMCO average regional reference price per region for the month.

Other information on electricity prices include:

- the lowest average daily price in New South Wales was \$18.42 per MWh on 25 December 2007 (\$13.87 per MWh on 26 December 2006)
- the highest average daily price in New South Wales was \$336.22 per MWh on 22 October 2007 (\$1,319.58 per MWh on 13 June 2007)
- the highest New South Wales half-hour price was \$7,858.07 per MWh on 22 October 2007 (\$9,936.37 per MWh on 13 June 2007).

Impact of Derivatives on the Balance Sheet

The volatility in electricity prices as shown in the preceding tables has a significant impact on the balance sheets of electricity entities. Australian Accounting Standard AASB 139 'Financial Instruments: Recognition and Measurement' requires electricity hedging contracts to be revalued at the end of the financial year to reflect the prevailing forward prices for electricity. Electricity hedge contracts are entered into by generators and retailers to lock in prices for future transactions to reduce price uncertainty. When prices increase, there is an immediate loss of opportunity for already contracted prices for generators (who have sold forward electricity at a lower price) and opportunity gain for retailers (who have contracted to purchase electricity at a lower price). The reflection of these opportunity costs and gains can fluctuate significantly from day to day as electricity prices move.

For the generator, the opportunity loss is recorded as a liability in the balance sheet. The liability will however not require any cash payment because it will reduce over time as physical delivery of contracted electricity is made. For the retailer, the asset created from the opportunity gain will also reduce as physical delivery of electricity occurs. These accounting adjustments do not affect the entities' cash flows or the economics of their businesses.

Existing Capacity in New South Wales

Generator	Ownership	Year Commissioned	Fuel	Capacity (MW)
Munmorah	Delta Electricity	1968-69	Coal	600
Liddell	Macquarie Generation	1971-73	Coal	2,000
Wallerawang	Delta Electricity	1976-80	Coal	1,000
Vales Point	Delta Electricity	1978-79	Coal	1,320
Eraring	Eraring Energy	1982-84	Coal	2,640
Bayswater	Macquarie Generation	1985-86	Coal	2,640
Mt. Piper	Delta Electricity	1993-94	Coal	1,400
Redbank	Babcock & Brown	1999	Coal	150
Bendeela	Eraring Energy	1977	Hydro	80
Kangaroo Valley	Eraring Energy	1977	Hydro	160
Smithfield	Marubeni	1995	Gas	160

Source: Owen Inquiry into Electricity Supply in New South Wales 2007 and State owned generators.

Supply and Demand Outlook

Projected electricity demand in New South Wales is currently expected to exceed supply in 2013-14.

The supply and demand outlook for each State provides:

- an indication of the capability of existing and committed supply to meet projected demand for the next ten years, and
- Low Reserve Condition (LRC) point, which indicates when reserves will fall below the required level to avoid possible shortage of supply.

Summary Overview of LRC and Reserve Deficit

State	LRC Point	Reserve Deficit (MW)
New South Wales	2013/14	134
Queensland	2007/08	10
Victoria	2010/11	105
South Australia	2010/11	49
Tasmania	Beyond 2016/17	

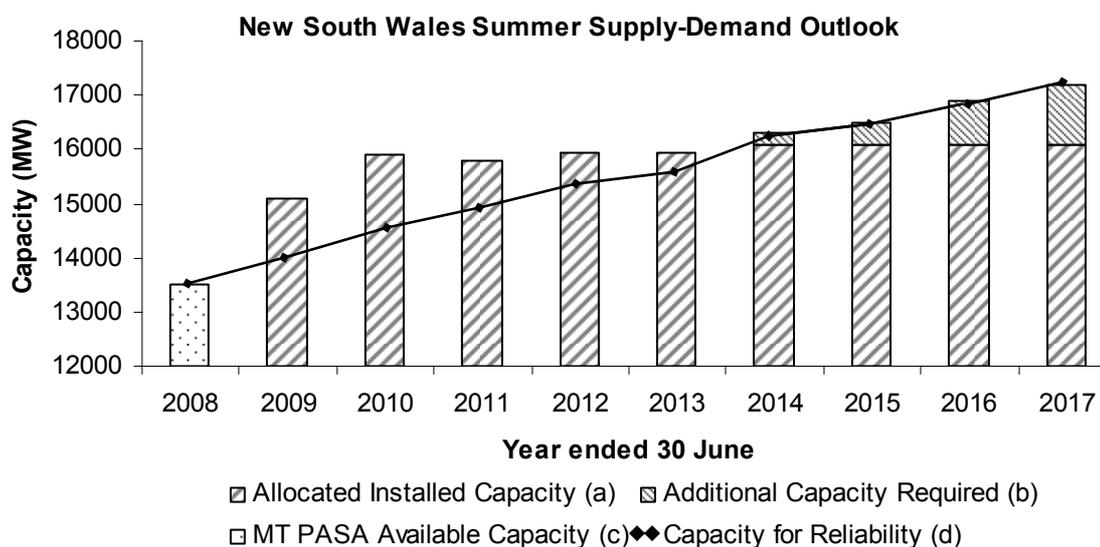
Source: NEMMCO Statement of Opportunities 2007.

The above table shows the LRC points for each State, indicating the first year when projected capacity will fall below the minimum required for reliable electricity supply. It should be noted that NEMMCO is due to release its 2008 Statement of Opportunities on 30 October 2008, at which time figures based on 2007 Statement of Opportunities may need to be updated.

The table also highlights the Reserve Deficit in megawatts (MW). This measure indicates the additional reserves potentially required at the LRC point.

Highest Demand in Summer

For New South Wales, the tightest supply-demand conditions are expected to occur during summer. The summer supply-demand outlook for the New South Wales region for the next ten years is shown in the graph below.



Source: NEMMCO Statement of Opportunities 2007.

- Allocated Installed Capacity: Represents the current projection of installed generation capacity allocated to meet the reliability requirement for the region (Capacity for Reliability). It includes the available capacity within a region plus the allocated net import from neighbouring regions.
- Additional Capacity Required: Represents the difference between the Capacity for Reliability and the Allocated Installed Capacity or the MT PASA Available Capacity. This also represents the reserve deficit.
- MT PASA Available Capacity: Represents the operational projection of installed generation capacity available to meet the scheduled maximum demand. This projection is taken from the preliminary MT PASA calculation performed using available capacity bid into MT PASA as at 24 July 2007.
- Capacity for Reliability: represents the capacity that needs to be allocated to meet the minimum reserve level.

The New South Wales LRC point occurs in 2013-2014. This demonstrates that unless additional capacity is created by this time, supply will fall below minimum reserve levels (as indicated by the solid line).

Peak and Average Demand Growth Rates

NEMMCO project the following peak and average demand growth rates per year for electricity in New South Wales.

Demand growth rate per year	2007	2008
Peak (%)	2.5	2.3
Average (%)	1.6	0.8

Source: NEMMCO Statement of Opportunities 2007, NEMMCO 2007 and 2008 energy and demand projections.

While the New South Wales peak and average growth rates projection for 2008 is below 2007 levels, it does indicate a continuing trend of growth. This in turn, demonstrates a continuing need to effectively manage total and peak demand and highlights the need for sufficient infrastructure to meet future growth.

Committed and Proposed Additional Capacity

The allocated installed capacity increases as significant new committed scheduled generation capacity enters the NEM. For New South Wales, proposed and committed projects to increase supply (excluding wind) include:

Developer	Station Name	Fuel	Capacity in MW	Commissioning
Committed projects				
TRUenergy	Tallawarra	Gas	400	2009
Delta Electricity	Colongra	Gas	667	2009-10
Origin Energy	NewGen Uranquinty	Gas	696	2008-09
Proposed projects (not yet committed)				
State owned generators				
Macquarie Generation	Tomago	Gas	500	--
Macquarie Generation	Bayswater B	Coal	2,000	--
Delta Electricity	Munmorah Rehabilitation	Coal	100	2012-13
Delta Electricity	Bamarang (Nowra)	Gas	400	2011-12
Delta Electricity	Marulan	Gas	450	2013-14
Delta Electricity	Mt Piper extension	Coal	1,500	--*
Eraring Energy**	Eraring Upgrade	Coal	240	2009
Other generators				
Wambo Power Ventures	NewGen Bega	Gas	120	2009-10
Wambo Power Ventures	NewGen Cobar	Gas	114	2008-09

Source: Australian Energy Regulator, State of the Energy Market 2007 updated for NEMMCO's 2007 Statement of Opportunities Update, November (not updated for 2008) and State owned generators.

* Development application for Mt Piper extension has not been lodged.

** Now committed.

Further, a study performed by NEMMCO, as part of the 2007 Annual National Transmission Statement (ANTS) market simulation, developed a number of simulated generation expansions based on price signals.

For New South Wales, a total simulated generation expansion of 2,085 MW eliminates reserve deficits for the next ten years.

The combination of committed and proposed projects, generating capacity in excess of 7,000 MW, should therefore meet New South Wales' projected supply requirements for the next ten years, based on the simulated generation expansion.

PERFORMANCE INFORMATION

Financial Performance

The New South Wales electricity industry's return of equity and assets are below national electricity industry figures. Debt levels are very similar to national figures.

Year ended 30 June	NSW 2006	NSW 2007	National Industry 2007*	NSW 2008
Return on average equity (%) (a)	15.2	15.7	16.1	13.3
Return on average assets (%) (b)	10.2	8.7	11.5	7.6
Interest cover (times) (c)	3.6	3.5	4.3	3.0
Debt to equity ratio (d)	1.2	1.5	0.9	1.2

* Productivity Commission whole of electricity sector performance indicators.

Calculated as:

(a) profit after income tax expense divided by average equity.

(b) profit before tax and interest expense divided by average assets.

(c) operating profit plus interest and tax expense divided by interest expense.

(d) external debt divided by equity (net assets).

Targets for these key ratios are not set for the New South Wales electricity industry. However, targets for individual agencies are agreed with the shareholding ministers and detailed in the comment for each agency (see elsewhere in this report).

The decrease in the return on assets ratio was due to higher asset values following revaluations.

Generators and Distributors

Pre-tax profits of the distributors in 2007-08 were \$531 million (\$844 million in 2006-07). Profits before tax from generators were \$896 million (\$693 million).

Revenue for the New South Wales electricity industry increased by \$949 million to \$10.6 billion. Expenses also increased, resulting in a \$39.1 million decrease in profit after tax.

The following table shows key financial ratios for generators and distributors:

	Generators			Distributors/Retailers		
	2006	2007	2008	2006	2007	2008
Return on average equity (%) (a)	18.0	30.5	27.2	16.3	13.6	9.0
Return on average assets (%) (b)	12.7	9.8	10.4	9.8	8.5	6.4
Interest cover times (c)	6.1	6.5	8.2	3.0	2.8	1.9
Debt to equity ratio (d)	0.6	3.5	0.5	1.8	1.5	2.2
Net assets \$m	2,725	538	4,036	3,399	4,993	3,912
Net profit \$m	485	484	622	535	568	403

Calculated as:

- (a) profit after income tax expense divided by average equity.
- (b) profit before tax and interest expense divided by average assets.
- (c) profit plus interest and tax expense divided by interest expense.
- (d) external debt divided by equity (net assets).

The significant increase in generators' net assets by \$3.5 billion was due to a decrease in liabilities for electricity hedging contracts, compared to the significant increase in 2006-07. To ensure sufficient revenue is received to cover production costs, generators enter into hedge contracts. This strategy protects generators' revenue streams in times of falling spot prices, but also limits opportunities to benefit from rising spot prices.

The hedging liabilities fell as there were better supply and demand conditions in 2007-08 resulting in lower electricity forward price curves. The fair value of electricity derivatives liabilities for generators and the fair value of electricity derivative assets for distributors both decreased.

Return on average equity decreased by 11 per cent from the prior year for generators due to the increase in net assets discussed above. Similarly, return on average equity decreased by 33 per cent from the prior year for distributors.

Transmission

TransGrid made a profit before tax of \$151 million in 2007-08 (\$172 million). The reduction in profit was due to a fluctuation in the actuary-determined defined benefit superannuation reserve position. This resulted in a slightly lower return on average assets of 6.2 per cent (7.1 per cent) and a reduction on its return on average equity to six per cent (seven per cent).

FINANCIAL INFORMATION

Distribution to Government

Electricity entities accrued distributions to the Government were \$1.4 billion (\$1.4 billion), comprising \$448 million (\$541 million) of tax and \$973 million (\$818 million) of dividends.

Budget Estimates

The 2008-09 Budget Papers show the Government is expecting annual revenue of around \$1.1 billion over the next few years from electricity entities.

Revenue Source	Actual	Budget	Forward Estimates			
	2008 \$m	2008 \$m	2009 \$m	2010 \$m	2011 \$m	2012 \$m
Dividends	973	741	692	709	720	767
Income tax	448	410	398	418	435	460
TOTAL	1,421	1,151	1,090	1,127	1,155	1,227

Industry Debt

Borrowing costs for the year were \$789 million compared to \$696 million in 2006-07. The industry's debt at 30 June 2008 was \$12.1 billion (\$10.7 billion at 30 June 2007). The table below highlights the trend of debt levels increasing in line with the significant capital works projects being undertaken.

	2006 \$m	2007 \$m	2008 \$m
Generators			
Borrowing costs	134	125	125
External debt	1,699	1,864	1,971
Distributors			
Borrowing costs	406	470	562
External debt	6,247	7,377	8,611
TransGrid			
Borrowing costs	100	101	102
External debt	1,455	1,454	1,532
TOTAL BORROWING COSTS	640	696	789
TOTAL EXTERNAL DEBT	9,402	10,695	12,114

OTHER INFORMATION

Asset Acquisition

In the 2008-09 State Budget the asset acquisition program was \$3.5 billion (\$2.9 billion) which is 21 per cent above the 2007-08 budget. Over 65 per cent of the 2008-09 capital program will be undertaken by the electricity distribution businesses, with a focus on replacement or refurbishment of assets that are reaching the end of their economic life, meeting demand growth and ensuring network reliability and security.

New South Wales Energy Efficiency Target (NEET) Scheme

The New South Wales Government recently announced that a New South Wales Energy Efficiency Target Scheme will replace and extend the current energy efficiency initiatives under the Greenhouse Gas Reduction Scheme (GGAS) demand side abatement rule. The new scheme will commence on 1 January 2009.

GGAS pioneered emissions trading in Australia and it is one of the first emissions trading schemes in the world. NEET will operate until the start of a national emissions trading scheme.

Electricity Tariff Equalisation Fund (the Fund)

The Fund enables retail electricity prices to be regulated without exposing retailers or the Government to unacceptable financial risk.

The Fund manages the retailers' exposure to the variability of wholesale electricity prices only for the load that supplies regulated customers.

At 30 June 2008, the Fund was \$82,000 in surplus, a significant increase from the deficit of \$822,000 at 30 June 2007. This resulted from less reliance on the Fund from retailers/distributors due to the decrease in electricity wholesale prices in June 2008 compared to the prior year. The Fund's transactions were:

Payments	Generators		Distributors/Retailers	
	2007 \$m	2008 \$m	2007 \$m	2008 \$m
Into the Fund	121	92	169	161
From the Fund	--	151	582	102

The New South Wales Government has announced that the Fund will be phased out between March 2009 and June 2010. From March 2009, the percentage of regulated retail load supported by the Fund will decrease from 100 per cent to 60 per cent and in September 2009 will reduce to 40 per cent.

Regulation

The Australian Energy Regulator (AER) is the regulator for electricity distribution under the new national regulatory regime. This role was previously undertaken by the New South Wales Independent Pricing and Regulatory Tribunal (IPART). In June 2004, IPART made a five year determination under the National Electricity Code, which established base revenue for each electricity distributor from 1 July 2004 until 30 June 2009. The determination provided incentives for the distributors to manage demand instead of increasing the capacity of the network. IPART plans for the distribution prices across the State to increase in real terms by an average 14 per cent over the five years of the determination, or 2.7 per cent per annum.

IPART is also responsible for regulating electricity prices for small retail customers in New South Wales. The current determinations on these prices were extended to 30 June 2010. The Minister for Energy has asked the Tribunal to review and determine the regulated retail electricity tariffs and charges that apply from 1 July 2007 to 30 June 2010.

The AER is also responsible for the regulation of transmission network charges. A determination for TransGrid's and EnergyAustralia's transmission services was issued on 27 April 2005, allowing both a nominal return of 8.9 per cent on their weighted average cost of capital. This determination covers a five year period from 1 July 2004 to 30 June 2009.

The Australian Energy Market Commission is responsible for rule making and market development. The Australian Energy Regulator (AER) has responsibility for regulatory compliance.

BACKGROUND

All New South Wales public sector electricity entities are statutory State owned corporations with the exception of the Residual Business Management Corporation (formerly Pacific Power), which is a statutory authority and now responsible for liquidating its assets and exiting the industry in the near future.

The entities have common objectives of:

- operating a successful business
- protecting the environment
- operating efficient, safe and reliable facilities for generating and distributing electricity and other forms of energy
- participating in the wholesale and retail markets for electricity and other forms of energy (except for TransGrid).

The shareholders of the corporations are the Treasurer and the Minister for Finance.

INDUSTRY FINANCIAL TABLES

Following are abridged income statement and balance sheet tables for generators and distributors for 2007-08 and the previous year. Comments on each entity and TransGrid follows this section.

GENERATORS

	Delta Electricity		Macquarie Generation		Eraring Energy		Total	
	2008 \$m	2007 \$m	2008 \$m	2007 \$m	2008 \$m	2007 \$m	2008 \$m	2007 \$m
Abridged Income Statements (year ended 30 June)								
Revenue	1,016.9	882.0	1,161.7	1,082.0	730.6	816.1	2,909.2	2,780.1
Profit before income tax	132.1	201.0	616.1	283.7	148.0	207.9	896.2	692.6
Income tax equivalent	44.4	61.1	184.4	84.8	44.7	62.2	273.5	208.1
Dividends paid and provided	124.4	113.6	270.0	180.0	114.6	132.1	509.0	425.7
Abridged Balance Sheets (at 30 June)								
Total assets	2,738.9	3,202.4	4,450.1	3,876.3	2,439.5	2,921.6	9,628.5	10,000.3
Total liabilities	1,841.9	2,986.8	2,650.3	3,933.7	1,100.4	2,541.6	5,592.6	9,462.1
Net assets/(net liabilities)	897.0	215.6	1,799.8	(57.4)	1,339.1	380.0	4,035.9	538.2
Retained earnings (at 30 June)	48.5	85.2	253.4	91.7	42.4	53.8	344.3	230.7
Financial Performance Indicators* (year ended 30 June)								
Return on average equity (%)	15.7	29.6	49.6	**	12.0	22.6	27.2	30.5
Return on average assets (%)	5.9	9.2	16.3	10.2	6.2	9.8	10.4	9.8
Debt/equity	0.9	3.1	0.5	**	0.3	0.8	0.5	3.5
Interest cover (times)	4.1	5.6	10.8	5.2	8.6	15.1	8.2	6.5

* Indicators calculated in accordance with standard formulas used by the Productivity Commission.

** Ratios are not meaningful as a result of negative net assets.

DISTRIBUTORS

	EnergyAustralia		Integral Energy		Country Energy		Total	
	2008 \$m	2007 \$m	2008 \$m	2007 \$m	2008 \$m	2007 \$m	2008 \$m	2007 \$m
Abridged Income Statements (year ended 30 June)								
Revenue	3,096.3	2,889.0	1,722.9	1,387.8	2,308.0	2,097.1	7,127.2	6,373.9
Profit before income tax	317.7	374.1	207.9	239.2	5.2	230.8	530.8	844.1
Income tax equivalent	88.6	115.4	57.3	86.0	(18.0)	75.0	127.9	276.4
Dividends paid and provided	183.5	162.3	125.0	107.0	49.1	51.3	357.6	320.6
Abridged Balance Sheets (at 30 June)								
Total assets	7,920.7	8,982.2	3,918.7	4,067.9	4,642.4	4,582.3	16,481.8	17,632.4
Total liabilities	5,986.0	6,524.9	2,891.0	2,743.9	3,692.5	3,370.7	12,569.5	12,639.5
Net assets	1,934.7	2,457.3	1,027.7	1,324.0	949.9	1,211.6	3,912.3	4,992.9
Retained earnings (at 30 June)	467.0	416.5	168.9	141.4	415.9	441.6	1,051.8	999.5
Financial Performance Indicators* (year ended 30 June)								
Return on average equity (%)	10.4	12.4	12.8	13.9	2.1	15.7	9.0	13.6
Return on average assets (%)	6.8	7.6	8.4	9.5	3.9	9.0	6.4	8.5
Debt/equity	2.1	1.5	1.8	1.2	2.8	1.8	2.2	1.5
Interest cover (times)	2.2	2.7	2.6	3.3	1.0	2.6	1.9	2.8

* Indicators calculated in accordance with standard formulas used by the Productivity Commission.