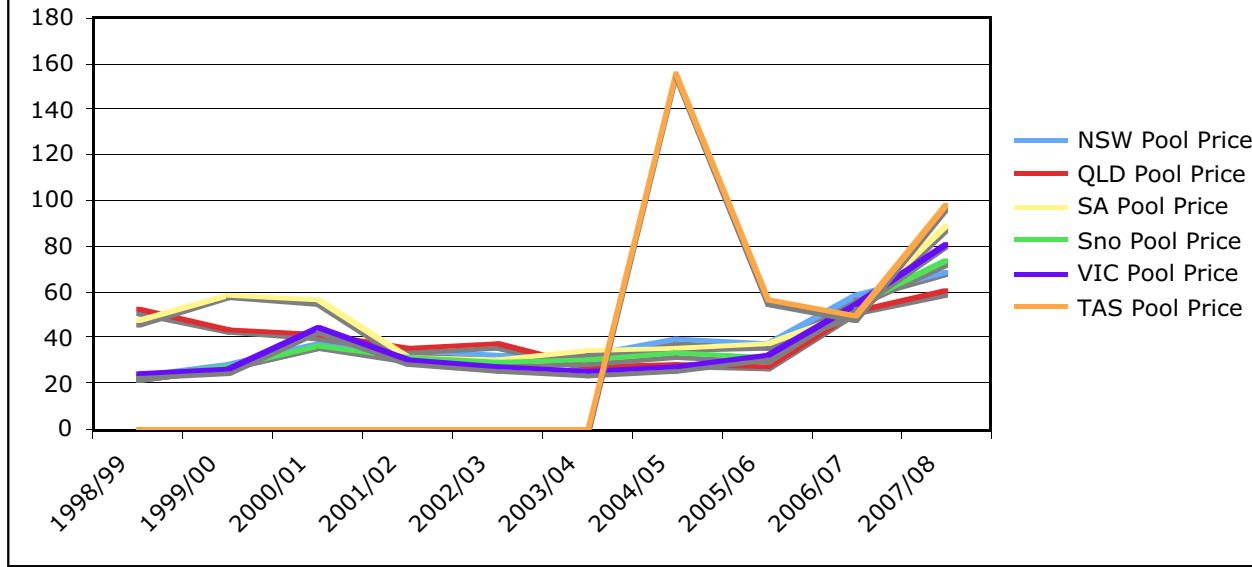


NSW must leave the NEM, argues Visy, p14
How NSW State generators set high price, p17
Adelaide call: fire up emergency diesel gensets, p19

electricity week

ewn publishing

Pool Price for Financial Year 1998 - 2007



1 Second retailer near collapse: break-the-bank-prices a daily affair in the NEM: \$51-\$58.72 mainland average for 2006/07

Market signals roared as the NEM powered into overdrive. A second retailer neared collapse in Victoria. In a fire sale - it sold customers for \$67 each.

Forest of new gen plans appear: But the

high prices inspired a surge of new committed generation at the change of the year; NEMMCO then issued a forecast for 2008 - 2011, at 3 July - which removed low reserve alerts for four NEM regions, over three years.

Tasmania runs out: The New Year opened with Tasmania out of electricity - it recorded a \$10,000/MWh ceiling price sustained over 30 minutes (*see more inside*), in a week where extraordinary prices, were again recorded across the NEM. The top price of the week was the \$9176.17/MWh in NSW for the 30-

minute trading interval ended Wednesday.

June quarter cracks the price records: The pool price for June was \$72.39-\$123.36/MWh with NSW and Qld both over \$100. In the new market pattern more volume was traded in futures to cover pool risk - futures volume in recent weeks was 144 per cent of physical capacity.

June quarter prices may topple more retailers: June quarter was 36 -142pc up on Q1

Traders pushed price to the limits, in the week to Saturday, 30 June: the NSW average pool price was \$335.86/MWh, Vic, \$215.88, SA \$150.50, and, Qld, \$295.64.

Mainland Fin Year pool \$51.62-\$58.72: The average price of four of the five regions of the National Electricity (NEM) exceeded \$50 in the 2006/07 financial year.

www.erisk.net

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Top price for NEM week 446: Mackay, Qld at \$2551.09

EWN publishing

2

TAS			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Liap/Way/Cat	\$1,755,513	13,426	\$130.75
Bell Bay Power	\$4,584,280	36,082	\$127.05
John Butters	\$1,397,969	12,546	\$111.43
Tungatinah	\$718,021	6,227	\$115.32
Poatina	\$3,299,834	22,121	\$149.17
Tarraleah	\$1,381,239	11,017	\$125.37
Reece	\$2,557,021	19,385	\$131.91
Cethana	\$463,884	4,310	\$107.62
Tribrute	\$84,733	1,568	\$54.04
Lemonthyme/Wilmot	\$920,305	7,761	\$118.59
Trevallyn	\$795,140	6,644	\$119.67
Mackintosh	\$1,042,276	8,080	\$129.00
Bastyan	\$1,060,264	8,246	\$128.58
Woolnorth Wind	-	-	-
Gordon	\$6,144,845	45,441	\$135.23
Vic->Tas	\$3,102,766	29,040	\$106.85
Devils Gate	\$465,017	3,417	\$136.10
Fisher	\$877,295	6,447	\$136.07
Meadowbank	294915.4978	2159.885	\$136.54
Lake Echo	302448.324	2298.175	\$131.60
Repulse	-	-	-
Palooka	-	-	-
Cluny	-	-	-

Mainland avs \$51.62-\$58.72/MWh: Average pool prices for the year were:

- **\$58.72/MWh in NSW**(up \$21.47/MWh on 2005/06);
- **Victoria \$54.81/MWh** (up \$22.34/MWh);
- **South Australia \$51.62/MWh** (up \$13.77/MWh);
- **Queensland \$52.15** (up \$24.03/MWh);
- **Tasmania \$49.59/MWh** (down \$7.13/MWh).

SA			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
North'n Power	\$12,638,063	89,523	\$141.17
Ladbroke	\$182,771	696	\$262.56
Osborne	\$3,852,998	27,100	\$142.18
Pelican Pt	\$10,460,812	68,774	\$152.10
Torrens Is. B	\$14,118,630	90,537	\$155.94
Vic->SA	\$802,753	5,403	\$148.58
MLink->SA	\$37,293	176	\$211.55
Torrens Is. A	\$1,567,367	8,440	\$185.70
Mintaro	\$51,115	205	\$249.17
Dry Creek	\$37,777	176	\$215.02
Playford	\$1,990,361	14,254	\$139.63
Snuggery	-	-	-
Pt Lincoln	-	-	-
Quarantine	\$81,336	290	\$280.25
Angaston Power	\$242,665	941	\$258.01
Hallett Power	\$257,916	1,196	-
Lonsdale	-	-	-
Terminal Storage	-	-	-
Lake Bonney Wind	-	-	-

VIC			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Loy Yang A	\$70,389,265	329,542	\$213.60
Loy Yang B	\$36,069,612	174,624	\$206.56
Hazelwood	\$48,549,604	228,355	\$212.61
Yallourn	\$38,417,923	190,906	\$201.24
Anglesea	\$5,447,079	26,176	\$208.09
Energy Brix	\$4,208,778	20,101	\$209.38
Newport	\$14,751,072	66,384	\$222.21
MLink->Vic	\$2,134,863	6,178	\$345.55
SA->Vic	\$2,275,157	13,407	\$169.70
Snowy->Vic	\$2,572,705	16,389	\$156.98
Tas->Vic	\$7,995,319	15,605	\$512.35
Jeeralang	\$6,517,220	12,741	\$511.50
West Kiewa	\$1,183,600	3,278	\$361.06
Bairnsdale	\$2,857,376	13,476	\$212.04
Dartmouth	-	-	-
Eildon	-	-	-
Hume Vic	-	-	-
McKay Power	\$2,134,483	3,286	\$649.55
Clover	-	-	-
Valley Power	\$5,926,888	19,063	\$310.91
Rubicon	-	-	-
Laverton North	2587914.948	8521.705	-
Somerton Power	2597789.277	7642.12	-
Sunshine Energy	-	-	-
Longford	-	-	-

NSW			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Bayswater	\$103,777,868	310,975	\$333.72
Liddell	\$81,333,971	235,048	\$346.03
Mt Piper	\$24,572,776	75,603	\$325.02
Wallerawang	\$41,274,158	111,132	\$371.40
Vales Point	\$68,316,638	200,499	\$340.73
Munmorah	\$18,194,601	70,510	\$258.04
Eraring	\$143,197,299	423,987	\$337.74
Redbank	\$8,003,231	24,584	\$325.55
Smithfield	\$8,435,519	20,365	\$414.21
Snowy->NSW	\$112,564,536	124,111	\$906.97
Shoalhaven	\$3,603,166	3,445	\$1,045.97
Hunter Valley	-	-	-
Hume Hydro	-	-	-
Blowering	-	-	-
Northern Gas	-	-	-
Burrinjuck	-	-	-
Brown Mountain	-	-	-
Keepit	-	-	-
Broken Hill	-	-	-
Ergon Energy	-	-	-
DL Q->N	\$6,183,886	15,143	\$408.36
QLD->NSW	\$38,413,863	115,849	\$331.59
Pindari Hydro	-	-	-
West Nowra	-	-	-
Country En (NSW)	-	-	-

QLD			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Kogan Creek	\$2,978,321	38,436	\$77.49
Tarong	\$42,321,355	123,055	\$343.92
Millmerran	\$40,369,124	141,969	\$284.35
Swanbank	\$15,683,028	39,927	\$392.79
Stanwell	\$59,627,994	205,345	\$290.38
Callide B	\$30,628,913	113,287	\$270.37
Callide Power	\$39,283,586	143,696	\$273.38
Townsville	\$9,732,938	28,567	\$340.70
Gladstone	\$58,813,698	198,156	\$296.81
Collinsville	\$5,308,444	12,269	\$432.67
Swanbank C, D, E	\$12,853,602	40,479	\$317.54
Barcaldine	\$1,469,938	1,602	\$917.64
Callide A	-	-	-
Kareeya	\$3,662,724	12,717	\$288.02
Barron Gorge	\$1,519,800	1,666	\$912.33
Mt Stuart	\$7,012,803	4,180	\$1,677.57
Wivenhoe	\$9,102,623	24,853	\$366.25
Braemar Power	\$18,628,312	33,154	\$561.87
Mackay	\$461,989	181	\$2,551.09
Roma	\$2,029,186	879	\$2,308.27
Oakey	\$8,198,034	4,520	\$1,813.65
DL N->Q	-	-	-
NSW->QLD	\$11,168	76	\$147.52
Rocky Point	-	-	-
Tableland	-	-	-

Tasmania falls: Tasmania just failed to make \$50, as a FY average, finishing with an average of \$49.59/MWh after being the only region over \$50 in 2005/06, its first financial year in the NEM. *(see price in detail, inside)*

June quarter 36-142pc up on Q1: June quarter prices soared 36 -142pc over previous three month to range of \$72.39-\$123.36/MWh with NSW and Qld both over \$100.

Two quarterly averages over \$100: The average quarterly prices for the regions were;

- \$123.36/MWh for NSW;
- \$109.00/MWh for Queensland;
- \$90.91/MWh for Victoria;
- \$76.22/MWh for SouthAustralia; and
- \$72.39/MWh for Tasmania.

(see price in detail, inside)

Reference: Price and Demand statistics for NSW, Victoria, South Australia, Queensland and Tasmania for each month from July 2006 to June 2007 from Price/ Demand section of Erisk Net - Realtime NEM Data. <http://www.erisk.net>

Large jump on June 2006

3 June prices were up considerably on the 2006 June quarter. NSW was up \$97.51/ MWh (377 per cent), Victoria \$62.42/ MWh (219 per cent), South Australia \$40.95/ MWh (116 per cent), Queensland \$85.65/MWh (367 per cent) and Tasmania \$34.87/MWh (93 per cent).

Demand down: The big jump in average

the week in detail

• **NSW:** Average price \$69.22/MWh, up 10 per cent on the spike-affected \$63.16/MWh of Saturday, up 105 per cent on the spike-affected \$33.81/MWh of the comparable Sunday last year; maximum price \$207.42/MWh for the trading interval ended 1800EST. Average demand 9383MW, down 0.5 per cent on Saturday, up 3.4 per cent on a year ago; maximum demand 11,811MW for the 1830EST interval, up 2.0 per cent on the 11,584MW of Saturday.

• **Victoria:** Average price \$75.61/MWh, up 17 per cent on the spike-affected \$64.74/MWh of Saturday, up 143 per cent on the spike-affected \$31.08/MWh of the comparable Sunday last year; maximum price \$201.72/MWh for the trading interval ended 1800EST. Average demand 5667MW, down 3.6 per cent on Saturday, up 1MW on a year ago; maximum demand 6743MW for the 1830EST interval, down 2.0 per cent on the 6881MW of Saturday.

• **South Australia:** Average price \$80.19/MWh, up 30 per cent on the spike-affected \$61.56/MWh of Saturday, up 101 per cent on the spike-affected \$39.95/MWh of the comparable Sunday last year; maximum price \$211.03/MWh for the trading interval ended 1800EST. Average demand 1388MW, down 3.9 per cent on Saturday, down 9.6 per cent on a year ago; maximum demand 1860MW for the 1900EST interval, down 1.3 per cent on the 1883MW on Saturday.

• **Queensland:** Average price \$61.64/MWh, up 26 per cent on the spike-affected \$49.05/MWh of Saturday, up 140 per cent on the spike-affected



\$25.73/MWh of the comparable Sunday last year; maximum price \$187.30/MWh for the 1800EST trading interval. Average demand 5500MW, down 2.9 per cent on Saturday, up 3.5 per cent on a year ago; maximum demand 6743MW for the 1900EST interval was the same as Victoria and up 0.3 per cent on the 6721MW of Saturday.

• **Tasmania:** Average price \$101.15/MWh, up 26 cents on the spike-affected \$100.89/MWh of Saturday, up 194 per cent on the spike-affected \$34.41/MWh of the comparable Sunday last year; maximum price \$181.08/MWh for the 2030EST trading interval. Average demand 1294MW, up 1.1 per cent on Saturday, up 2.1 per cent on a year ago; maximum demand 1582MW for the 1800EST interval, up 6.2 per cent on the 1489MW on Saturday.

prices for the quarter was not reflected in demand with all regions except Tasmania having lower average demand than the March and June quarter.

June, first month since NEM started with more than one region averaging over \$100

June was the first full month in the 102 months the National Electricity Market (NEM) has been operating that more than one region's monthly average price exceeded \$100.

NSW first to average over \$200 in a month: An analysis of June prices and demand shows average prices in excess of \$100 in four of the five major regions - NSW at \$230.51/MWh (the first monthly average exceeding \$200), Queensland \$192.28/MWh, Victoria \$143.19/MWh and South Australia \$102.60/MWh.

Negative prices hold Tasmania av down: The exception was Tasmania whose average of \$78.00/MWh was pulled down by a spate of negative prices during the month. Spikes on every day of month: June also saw spikes on every day of the month, with all regions having spikes for the 17 days from 14 June to 30 June inclusive. Five of 102 months previously with one region above \$100: Before June, there had only been five months when one region averaged more than \$100. These were:

the financial year

Average prices of four of the five state members of the National Electricity (NEM) exceeded \$50 in the 2006/07 financial year, an analysis shows.

Tas average of \$49.59/MWh: Tasmania just failed to make \$50, finishing with an average of \$49.59/MWh after being the only region over \$50 in 2005/06, its first financial year in the NEM.

Mainland region averages between \$51.62-\$58.72/MWh: Average prices for the year were \$58.72/MWh in NSW (up \$21.47/MWh on 2005/06), Victoria \$54.81/MWh (up \$22.34/MWh), South Australia \$51.62/MWh (up \$13.77/MWh), Queensland \$52.15 (up \$24.03/MWh) and Tasmania \$49.59/MWh (down \$7.13/MWh).

Demand steady in Qld, up everywhere else: Average demand was steady in Queensland (up 1MW to 5844MW) and up in all other states – NSW at 8905MW was up 603MW on 2005/06, Victoria at 5864MW was up 89MW, South Australia at 1523MW was up 64MW and Tasmania at 1163MW was up 20MW.

Details of price and demand for regions in 2006/07: The following provides details of average price and demand for the state NEM members in 2006/07 compared with 2005/06:

- **NSW:** Average price \$58.72/MWh, up \$21.47/MWh (58 per cent) on the average \$37.25/MWh in

2005/06. Average demand 8905MW, up 603MW (per cent) on the average 8702MW of 2005/06.

- **Victoria:** Average price \$54.81/MWh, up \$22.34/MWh (69 per cent) on the average \$32.47/MWh in 2005/06. Average demand 5864MW, up 89MW (1.5 per cent) on the average 5775MW of 2005/06.

- **South Australia:** Average price \$51.62/MWh, up \$13.77/MWh (36 per cent) on the average \$37.85/MWh in 2005/06. Average demand MW, MW (per cent) on the average 1459MW of 2005/06.

- **Queensland:** Average price \$/MWh, \$52.15/MWh (85 per cent) on the average \$28.12/MWh in 2005/06. Average demand 5844MW, up 1MW on the average 5843MW of 2005/06.

- **Tasmania:** Average price \$49.59/MWh, down \$7.13/MWh (13 per cent) on the average \$56.72/MWh in 2005/06. Average demand 1163MW, up 20 MW (1.7 per cent) on the average 1143MW of 2005/06.

Reference: Price and Demand statistics for NSW, Victoria, South Australia, Queensland and Tasmania for each month from July 2006 to June 2007 from Price/ Demand section of Erisk Net – Realtime NEM Data. <http://www.erisk.net>

june quarter



A record June pushed average prices for the 2007 June quarter up between 36-142 per cent on the March quarter to a range of \$72.39-\$123.36/MWh, an analysis of price and demand figures shows.

Two quarterly averages over \$100: The average quarterly prices for the regions were \$123.36/MWh for NSW, \$109.00/MWh for Queensland, \$90.91/MWh for Victoria, \$76.22/MWh for South Australia and \$72.39/MWh for Tasmania.

Increases over 100 per cent in NSW and Qld: This represented increases of \$72.47/MWh (142 per cent) for NSW, \$55.50/MWh (104 per cent) for Queensland, \$26.26/MWh (41 per cent) for Victoria, \$23.12/MWh (47 per cent) for Tasmania and \$20.12/MWh (36 per cent) for South Australia.

Large jump on June 2006 quarter: The June prices were up considerably on the 2006 June quarter. NSW was up \$97.51/MWh (377 per cent), Victoria \$62.42/MWh (219 per cent), South Australia \$40.95/MWh (116 per cent), Queensland \$85.65/MWh (367 per cent) and Tasmania \$34.87/MWh (93 per cent).

Different story with demand: The big jump in average prices for the quarter was not reflected in demand with all regions except Tasmania having lower average demand than the March quarter.

Tas only region with higher demand: NSW was down 63MW (0.7 per cent), Victoria 76MW (1.3 per cent), South Australia 115MW (7.1 per cent), Queensland 497MW (7.9 per cent) while Tasmania was up by 1232MW (11.4 per cent).

June 2006 quarter much closer: In comparison with the June 2006 quarter, average demand was down 131MW (1.5 per cent) in NSW, down 116MW (1.9 per cent) in Victoria, up 10MW (0.7 per cent) in South Australia, up 55MW (1.0 per cent) in Queensland and down 15MW (1.2 per cent) in Tasmania.

Average price and demand details for quarter: The following provides details of average price and average demand for the regions in the June 2007 quarter, the March 2007 quarter and the June 2006 quarter:

- **NSW:** Average price \$123.36/MWh, up \$72.47/MWh (142 per cent) on the average \$50.89/MWh in the March 2007 quarter, up \$97.51/MWh (377 per cent) on the average \$25.85/MWh of the June quarter in 2006. Average demand 8887MW, down 63MW (0.5 per cent) on the average 8950MW in the March 2007 quarter, down 131MW (1.5 per cent) on the average 9018MW in the June quarter of 2006.
- **Victoria:** Average price \$90.91/MWh, up \$26.26/MWh (41 per cent) on the average \$64.65/MWh in the March 2007 quarter, up \$62.42/MWh (219 per cent) on the average \$28.49/MWh of the June quarter in 2006. Average demand 5854MW, down 76MW (1.3 per cent) on the average 5930MW in the March 2007 quarter, down 116MW (1.9 per cent) on the average 5970MW in the June quarter of 2006.
- **South Australia:** Average price \$76.22/MWh,

up \$20.12/MWh (36 per cent) on the average \$56.10/MWh in the March 2007 quarter, up \$40.95/MWh (116 per cent) on the average \$35.27/MWh of the June quarter in 2006. Average demand 1500MW, down 115MW (7.1 per cent) on the average 1615MW in the March 2007 quarter, up 10MW (0.7 per cent) on the average 1490MW in the June quarter of 2006.

- **Queensland:** Average price \$109.00/MWh, up \$55.50/MWh (104 per cent) on the average \$53.50/MWh in the March 2007 quarter, up \$85.65/MWh (per cent) on the average \$23.35/MWh of the June quarter in 2006. Average demand 5756MW, down 497MW (7.9 per cent) on the average 6253MW in the March 2007 quarter, up 55MW (1.0 per cent) on the average 5701MW in the June quarter of 2006.
- **Tasmania:** Average price \$72.39/MWh, up \$23.12/MWh (47 per cent) on the average \$49.27/MWh in the March 2007 quarter, up \$34.87/MWh (93 per cent) on the average \$37.52/MWh of the June quarter in 2006. Average demand 1201MW, up 123MW (114 per cent) on the average 1078MW in the March 2007 quarter, down 15MW (1.2 per cent) on the average 1216MW in the June quarter of 2006.

Reference: Analysis of average daily price and average daily demand for June quarter 2007, March quarter 2007 and June quarter 2006 for NSW, Victoria, South Australia, Queensland and Tasmania in Price/Demand section of Erisk Net – Realtime NEM Data.
<http://www.erisk.net>

month of june



June was the first full month in the 102 months the National Electricity Market (NEM) has been operating that more than one region's monthly average price exceeded \$100.

NSW first to average over \$200 in a month: An analysis of June prices and demand shows average prices in excess of \$100 in four of the five major regions – NSW at \$230.51/MWh (the first monthly average exceeding \$200), Queensland \$192.28/MWh, Victoria \$143.19/MWh and South Australia \$102.60/MWh.

Spate of negative prices hold Tasmania average down: The exception was Tasmania whose average of \$78.00/MWh was pulled down by a spate of negative prices during the month.

Spikes on every day of month: June also saw spikes on every day of the month, with all regions having spikes for the 17 days from 14 June to 30 June inclusive.

Five of 102 months previously with one region above \$100: Before June, there had only been five months when one region averaged more than \$100. These were:

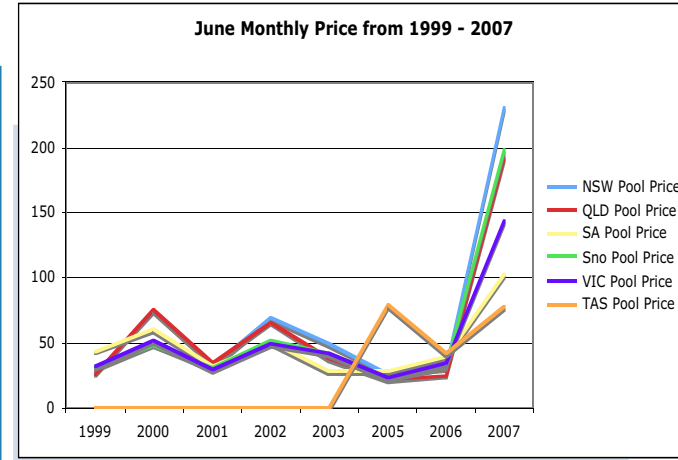
- January 2000: Queensland averaged \$102.12/MWh
- February 2000: South Australia averaged \$103.91/MWh.
- February 2001: South Australia averaged \$131.11/MWh.
- July 2005: Tasmania averaged \$112.35/MWh.
- August 2005: Tasmania averaged \$106.86/MWh.

Big rises in average demand: In a month where 10 winter demand records were set – two for the NEM, two for NSW, two for Victoria, two for Tasmania and one each for Queensland and Tasmania – average demand was up on the May averages in all regions.

Demand up between 1.7 and 20.6 per cent: The rises were 99MW (1.7 per cent) in Queensland, 508MW (8.8 per cent) in Victoria, 1146MW (13.2 per cent) in NSW, 185MW (18.5 per cent) in Tasmania and 287MW (20.6 per cent) in South Australia.

Average price and average demand details for June: The following provides average price and average demand details for June, compared with May and June 2006.

- **NSW:** Average price \$230.51/MWh, up \$167.14/MWh (264 per cent) on the average \$63.37/MWh in May, up \$199.00/MWh (632 per cent) on the average \$31.51/MWh of June 2006. Average demand 9826MW, up 1146MW (13.2 per cent) on the 8680MW of May, down 78 MW (1.6 per cent) on the 9904MW of June 2006.
- **Victoria:** Average price \$143.19/MWh, up \$80.47/MWh (128 per cent) on the average \$62.72/MWh in May, up \$108.54/MWh (313 per cent) on the average \$34.65/MWh of June 2006. Average demand 6290MW, up 508MW (8.8 per cent) on the 5782MW of May, down 8MW on the 6298MW of June 2006.
- **South Australia:** Average price \$102.60/MWh, up \$56.94/MWh (80 per cent) on the average \$56.94/MWh in May, up \$63.35/MWh (161 per



cent) on the average \$39.25/MWh of June 2006. Average demand 1682MW, up 287MW (20.6 per cent) on the 1395MW of May, up 23MW (1.4 per cent) on the 1659MW of June 2006.

- **Queensland:** Average price \$192.28/MWh, up \$131.08/MWh (214 per cent) on the average \$61.20/MWh in May, up \$167.03/MWh (662 per cent) on the average \$25.25/MWh of June 2006. Average demand 5830MW, up 99MW (1.7 per cent) on the 5731MW of May, up 61MW (1.1 per cent) on the 5769MW of June 2006.
- **Tasmania:** Average price \$78.00/MWh, up \$11.73/MWh (18 per cent) on the average \$66.27/MWh in May, up \$36.54/MWh (88 per cent) on the average \$41.46/MWh of June 2006. Average demand 1337MW, up 185MW (16.1 per cent) on the 1152MW of May, up 36MW (2.8 per cent) on the 1301MW of June 2006.

Reference: Analysis of average daily price and average daily demand for June 2007, May 2007 and June 2006 for NSW, Victoria, South Australia, Queensland and Tasmania in Price/Demand section of Erisk Net – Realtime NEM Data. <http://www.erisk.net>

- January 2000: Queensland averaged \$102.12/MWh/
- February 2000: South Australia averaged \$103.91/MWh.
- February 2001: South Australia averaged \$131.11/MWh.
- July 2005: Tasmania averaged \$112.35/MWh.
- August 2005: Tasmania averaged \$106.86/MWh.

June av demand up: In a month where 10 winter demand records were set ñ two for the NEM, two for NSW, two for Victoria, two for Tasmania and one each for Queensland and Tasmania - average demand was up on the May averages in all regions.

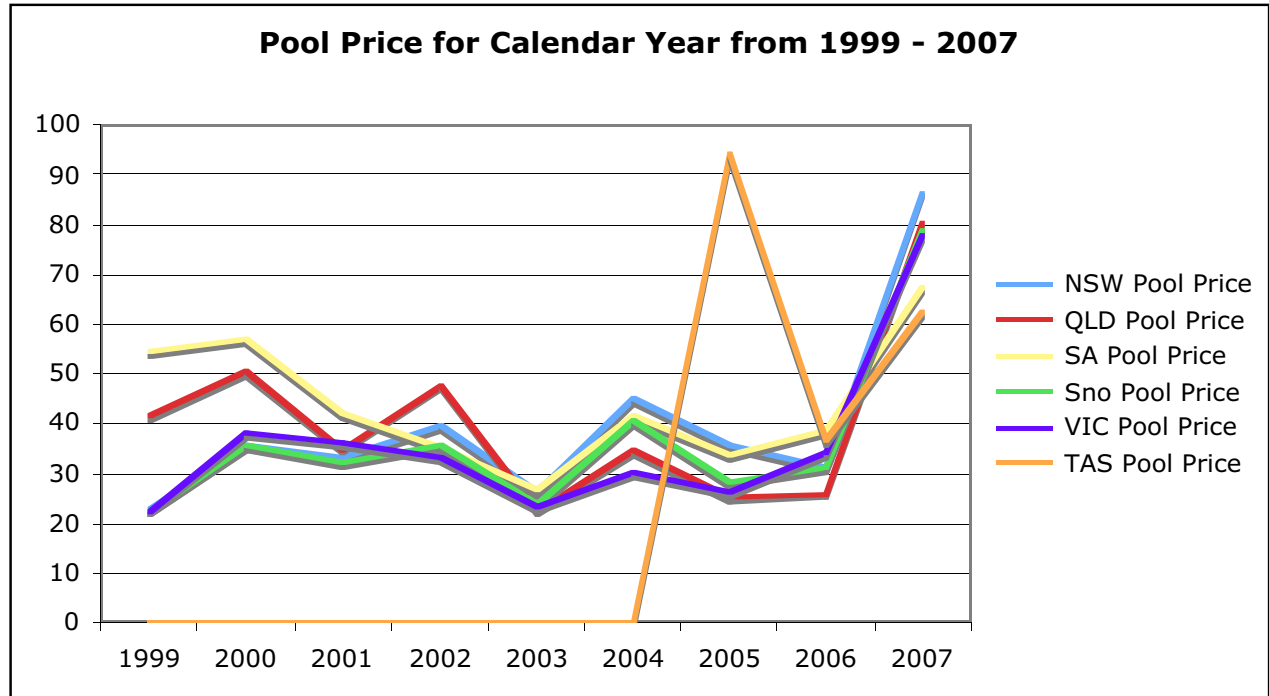
Demand up between 1.7 and 20.6 per cent:
The rises were:

- 99MW (1.7 per cent) in Queensland;
- 508MW (8.8 per cent) in Victoria;
- 146MW (13.2 per cent) in NSW;
- 185MW (18.5 per cent) in Tasmania; and
- 287MW (20.6 per cent) in South Australia.

7

Average price and average demand details for June: The following provides average price and average demand details for June, compared with May and June 2006.

- NSW: Average price \$230.51/MWh, up \$167.14/MWh (264 per cent) on the average \$63.37/MWh in May, up \$199.00/



MWh (632 per cent) on the average \$31.51/MWh of June 2006. Average demand 9826MW, up 1146MW (13.2 per cent) on the 8680MW of May, down 78 MW (1.6 per cent) on the 9904MW of June 2006.

- Victoria Average price \$143.19/MWh, up \$80.47/MWh (128 per cent) on the average \$62.72/MWh in May, up \$108.54/MWh (313 per cent) on the average \$34.65/MWh of June 2006. Average demand 6290MW, up 508MW (8.8 per cent) on the 5782MW of May, down 8MW on the 6298MW of June 2006.

- South Australia Average price \$102.60/MWh, up \$56.94/MWh (80 per cent) on the average \$56.94/MWh in May, up \$63.35/MWh (161 per cent) on the average \$39.25/MWh of June 2006. Average demand 1682MW, up 287MW (20.6 per cent) on the 1395MW of May, up 23MW (1.4 per cent) on the 1659MW of June 2006.
- Queensland Average price \$192.28/MWh, up \$131.08/MWh (214 per cent) on the average \$61.20/MWh in May, up \$167.03 / MWh (662 per cent) on the average

\$25.25/MWh of June 2006. Average demand 5830MW, up 99MW (1.7 per cent) on the 5731MW of May, up 61MW (1.1 per cent) on the 5769MW of June 2006.

- Tasmania Average price \$78.00/MWh, up \$11.73/MWh (18 per cent) on the average \$66.27/MWh in May, up \$36.54/MWh (88 per cent) on the average \$41.46/MWh of June 2006. Average demand 1337MW, up 185MW (16.1 per cent) on the 1152MW of May, up 36MW (2.8 per cent) on the 1301MW of June 2006.

Reference: Analysis of average daily price and average daily demand for June 2007, May 2007 and June 2006 for NSW, Victoria, South Australia, Queensland and Tasmania in Price/Demand section of Erisk Net - Realtime NEM Data. <http://www.erisk.net>

NSW Opposition seeks fast-track plans to sell retailers

The NSW Opposition leader Barry O'Farrell, in his budget reply speech on 21 June 2007, O'Farrell promised to privatise the retail arms of state-owned electricity companies in the first of a series of asset sales designed to minimise risk to taxpayers and fund new projects, if he won the next election in 2011. O'Farrell's message was taxpayers were losing money from these increasingly risky businesses and would be better off cashing in to fund critical infrastructure. Premier Morris Lemma emphatically ruled out privatising energy retailers during the March election campaign,

2007-08 Vic summer forecast; 4.3 per cent lower

Year	Actual	Medium			High			Low		
		10% POE	50% POE	90% POE	10% POE	50% POE	90% POE	10% POE	50% POE	90% POE
2004/05	8,535									
2005/06	8,730									
2006/07	9,062									
2007/08		10,026	9,198	8,704	10,069	9,236	8,740	9,957	9,134	8,644
2008/09		10,124	9,263	8,752	10,247	9,381	8,866	10,010	9,157	8,649
2009/10		10,297	9,409	8,881	10,526	9,630	9,098	10,118	9,240	8,719
2010/11		10,515	9,601	9,058	10,859	9,934	9,384	10,279	9,377	8,842
2011/12		10,720	9,780	9,223	11,196	10,241	9,673	10,410	9,484	8,935
2012/13		10,940	9,975	9,403	11,546	10,560	9,975	10,559	9,609	9,047
2013/14		11,173	10,182	9,596	11,912	10,895	10,291	10,729	9,757	9,182
2014/15		11,370	10,359	9,761	12,254	11,209	10,589	10,852	9,861	9,277
2015/16		11,582	10,551	9,941	12,620	11,547	10,910	10,957	9,949	9,355
2016/17		11,794	10,742	10,119	13,014	11,910	11,254	11,092	10,066	9,460

but has since said he has an open mind on the issue.

Pressure on lemma to act: O'Farrell estimated NSW taxpayers had already lost more than \$700 million from the 20 per cent of electricity customers in metropolitan areas who had signed contracts with private retailers in five years since competition was introduced in the NSW market.

POE summer forecasts: The above graph compares the 10 per cent POE summer Scheduled MD forecasts for the medium-growth scenario for 2006 and 2007. Compared to 2006 EAPR, the current forecasts were 446 MW, or 4.3 per cent lower, for the 2007/08 summer, and 444MW, or 4 per cent lower, for the 2011/12 summer; and 494 MW, or 4.1per cent lower, for the 2015/16 summer.

Go fly a kite: generate at cost of only 1 cent per kWh

Dr Wubbo Ockels of the Delft University of Technology in the Netherlands plans airborne wind generation at lower altitude, with backing from Royal Dutch Shell,

an oil giant, and Nederlandse Gasunie, a natural-gas company, reported *The Economist* (12/6/2007, p.4).

Kite-flying generation: Ockels's idea was to

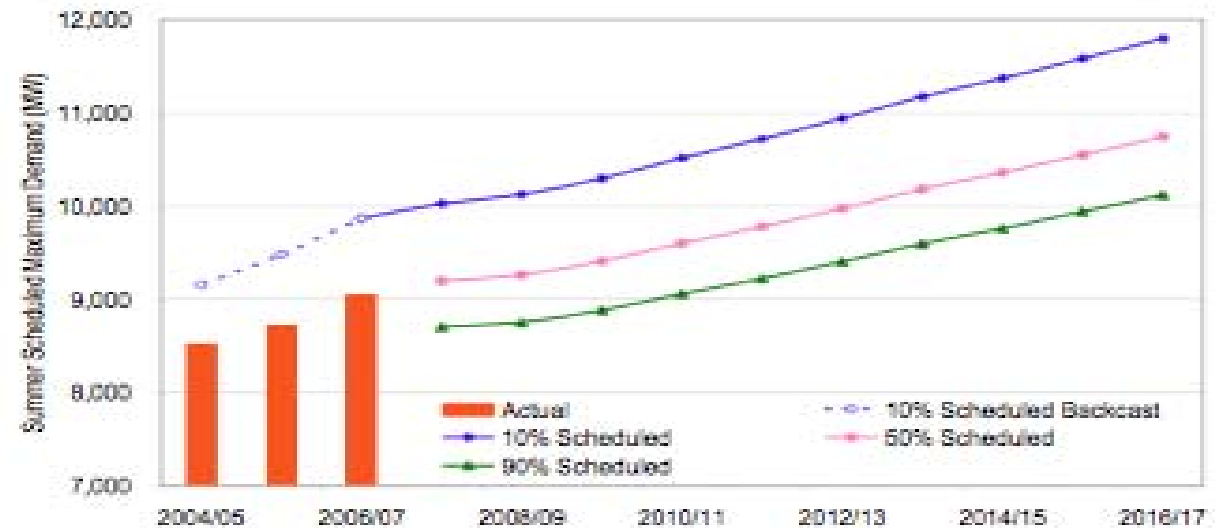
- launch a kite (without rotor blades) from a ground station;
- turning a generator as it rises to an altitude of several hundred metres;
- when it reached its maximum altitude the kite alters its shape to catch less wind, and can thus be reeled back in using much less energy than it produced when it was being paid out;
- an arrangement of two or more of these kites could act together to produce a steady supply of power.
- While one kite was being released, some of the electricity produced would be used to reel another kite back in, and vice versa.

Tech well- established: This system had the advantage that it required;

- only simple parts-generators, kites and cables - and should therefore be much cheaper to build than a conventional wind turbine;
- Ockels was working on kites with wings and rudders. The wings and rudders themselves would be under computer control - the technology was already well established for flying aircraft without a human pilot.

Hopes for future: To test the idea Ockels's

Victoria Summer scheduled maximum demand forecasts



team was building a prototype. He hoped to start testing a full-scale device, which would generate enough power for around 6,000 homes. He believed it should be possible to generate electricity at a cost of just 1 cent per kwh.

More June winter demand records as traders bid negative prices in Tas, Vic, SA

For the last weekl of June the top price of the week was the \$9176.17/MWh in NSW for the 30-minute trading interval ended Wednesday

Negative prices in Tas, Vic and SA:

Tasmania, Victoria and South Australia recorded negative prices during the week. Tasmania had negative prices of between minus \$623.40/MWh and minus \$999.50/MWh on Wednesday while South Australia recorded a negative price of minus \$119.04/MWh on Wednesday. On Thursday, Tasmania had six negative price intervals with a high price of minus \$1000.00/MWh in two of these intervals. South Australia had two negative price intervals with the highest being minus \$93.32/MWh and Victoria had one negative price interval of minus \$36.26/MWh.

Winter demand record club: total in June, to 10

- SouthAustralia became the fifth major NEM region to set a winter demand record with its 2386MW on Monday, 25 June which was up 19MW (0.8 per cent) on the previous record of 2367MW set on 6 June 2006;
- NSW set its second winter demand record of the month on Wednesday with 13,306MW, up 75MW (0.6 per cent) on the 13,231MW on Tuesday, 19 June.

More records: Other NEM winter records set in June include the overall NEM regions (twice), Victoria (twice), Queensland (once) and Tasmania (twice).

Terranora link outage extended until end of July: 1040MW Qld gen crash feared

The outage of a circuit of Directlink, part of the Terranora interconnector between NSW and Queensland, was due to end on Saturday, 30 June, but at the last moment (1706EST on Saturday), it was announced the outage was extended for a month until the end of July and that the constraint set was extended to cover this time. Earlier in the day, NEMMCO advised that the credible contingency it declared for the loss of an unidentified Queensland power station's entire

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Risk of loss of Newport a critical issue for Victoria

Reactive Supply (MVar)		Reactive Demand (MVar)	
Generation	2,420	Loads	3,466
SVCs and Synchronous Condensers	352	Line Reactors	213
Line Charging	2,570	Line Losses	6,436
Shunt Capacitors	4,620	Inter-regional Transfer	141
Series Capacitors	294		
Total	10,256	Total	10,256

Increased transmission losses: The table above lists the system reactive supply-demand balance following the most critical outage, being loss of Newport Power Station (500 MW). The modelling of this critical outage assumes frequency control from Snowy and New South Wales generators. As a result of a Newport Power Station outage, the: import from Snowy/New South

Wales increases from 1,900 MW to 2,400 MW, causing an increase in active and reactive transmission power losses; amount of reactive supply in Greater Melbourne and Geelong is reduced; and increased requirement for reactive supply is met by the remaining generators, synchronous condensers, static VAR compensators and series capacitors. VENcorp

Vic: Reactive supply-demand balance at 9798MW

Reactive Supply (MVar)		Reactive Demand (MVar)	
Generation	2,326	Loads	3,466
SVCs and Synchronous Condensers	-102	Line Reactors	216
Line Charging	2,726	Line Losses	5,835
Shunt Capacitors	4,683	Inter-regional Transfer	281
Series Capacitors	165		
Total	9,798	Total	9,798

The table above illustrates Victoria's reactive supply-demand balance for summer 2006/07 (at a forecast 10,234 MW 10% POE maximum demand) for system normal conditions with all generators and transmission elements in service. VENcorp.

Vic 9.062MW maximum demand; 2006/07 summer

output during essential control systems work from 0800EST on Saturday and scheduled to take less than 15 minutes was cancelled from 0840EST. Initially, NEMMCO said the participant advised the maximum generation at risk would be about 1040MW and it invoked a number of constraints from 0800EST to 0830EST on Saturday. These were revoked at 0840EST.

\$10,000/MWh price in Tas

In the week to Saturday, 30 June, two low reserve conditions (LRC) were forecast for NSW, one on Tuesday with a maximum reserve shortfall of 209MW and another on Wednesday with a maximum reserve shortfall of 347MW. A review confirmed a \$10,000 price published for over-constrained dispatch in Tasmania in the 1110EST dispatch interval on Wednesday. Market outcomes resulted in negative settlement rises accumulating in Victoria on both Wednesday and Thursday, with minus \$6000 exceeded on Wednesday and westerly transfers on the Heywood interconnector between Victoria and South Australia being constrained to 140MW.

11

66 generator bids fail to deliver: NEMMCO issued 66 declarations of non-conformity against generators over rebids not received ñ 21 in South Australia, 16 in Victoria, 16 in NSW, 8 in Tasmania, 4 in Queensland and 1 in Snowy.

Region	Generation	Summer 2006/07 Capacity (MW)	Total (%)	Total (MW)	Net Generation (MW)
Eastern Corridor	Bairnsdale	70		6,880	6,510
	Energy Brix Complex	139			
	Hazelwood	1,580			
	Jeeralang A	200			
	Jeeralang B	216			
	Loy Yang A	2,020			
	Loy Yang B	965			
	Valley Power	270			
	Yallourn	1,420			
	DNISP Load		3.6%	370	
South West Corridor	N/A	0		0	0
	DNISP Load		0%	0	
Northern Corridor	Dartmouth	156		527	434
	Eildon	105			
	Hume (Victoria)	58			
	McKay Creek	150			
	West Kiewa	58			
	DNISP Load		0.9%		
Greater Melbourne and Geelong	Anglesea	156		1,063	-5,455
	Laverton North	300			
	Newport	475			
	Somerton GT	132			
	DNISP Load		63.7%		
Regional Victoria	N/A	0		0	-1,238
	DNISP Load		12.1%	1,238	
Transmission Losses			3.6%	364	-364
Generator Auxiliary Load			5.3%	546	-546
Major Industrial Load			10.8%	1,105	-1,105
Total Generation				8,470	
Total Load			100%	10,234	
Net Generation (import req'd)					-1,764

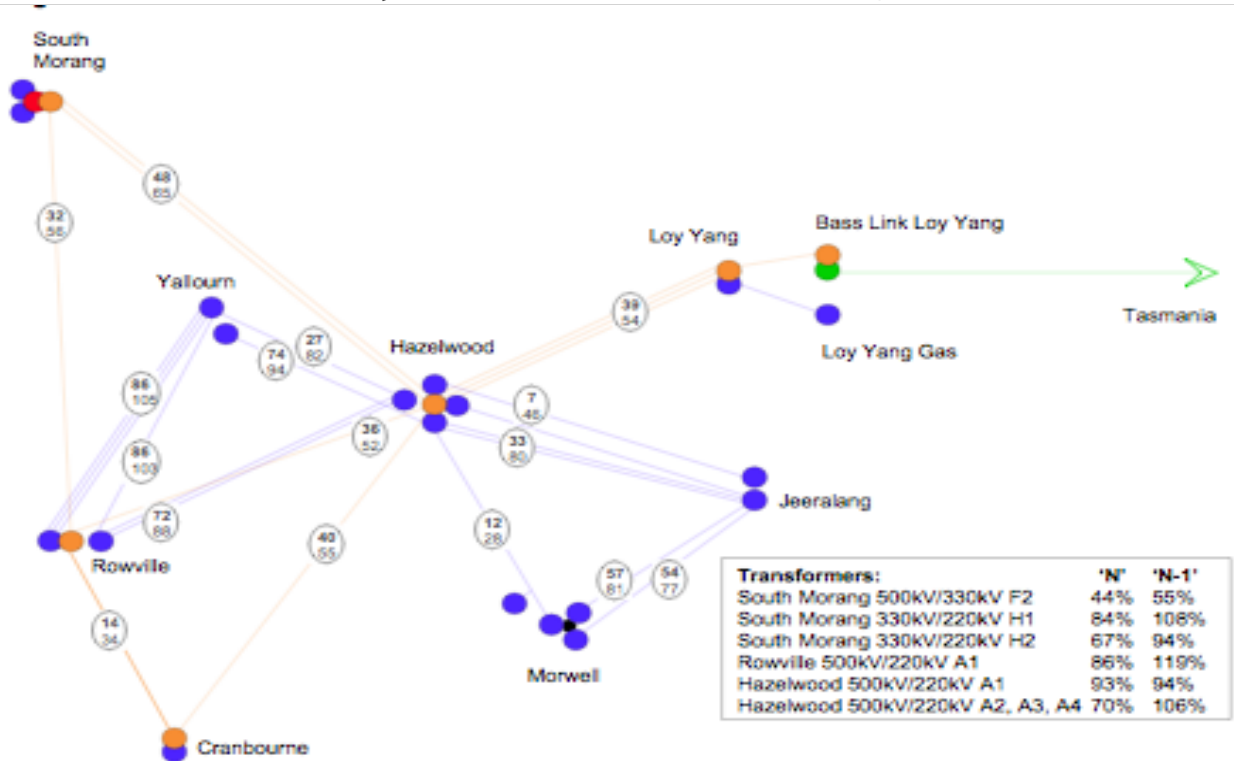
Energy economist, Charles Rivers partner Henry Ergas ,a big Liberal party donor

Speaking to the NSW Legislative Assembly (6/6/07), Graham James West, Member for Campbelltown and Minister for Gaming and Racing, said energy economist Henry Ergas, author of the Liberal-lobby front, Menzies Research Centre report 'State of the States' donated \$36,000 to the Liberal Party - mostly through the Queensland section. Ergas also donated \$20,000 to the Menzies Research Centre.

Mr Big: *Electricity Week* observes, Ergas also donated to the Labor Party. West said Ergas was also a funder of the Menzies Research Centre. a body identified in accordance with the *Commonwealth Electorate Act 1918* as an associated entity to a political party (The Liberal Party).

Ergas not independent, says West: The report by the Liberal Party's Menzies Research Centre contained a number of serious flaws, West said. He said that it was worthwhile noting that the so-called independent author of the 'State of the States' report, Henry Ergas, donated a total of \$36,000 to the Liberal Party. "I am pleased to say that members do not have to rely on my word for that; they can rely on the Australian Electoral Commission [AEC] funding and disclosure donor record, which shows that Mr Henry Ergas made three

New Latrobe Valley constraints could emerge



VENcorp annual plan: With the installation of new generation, a number of localised Latrobe Valley constraints could emerge. The Eastern Corridor connects the greater Melbourne load centre to generators in the Latrobe Valley. One of the oldest electricity corridors to Melbourne, it still dominates Melbourne's electricity supply, despite electrical connection to hydroelectric schemes to the north and to the adjoining NEM regions. The figure above shows the electrical layout of the Eastern Corridor's electricity transmission assets. The

apparent 'N-1' overloadings of:

the South Morang 330 kV/220 kV, Rowville 500kV/220 kV and Cranbourne 500 kV/220 kV metropolitan transformers are addressed in Section 5.2.4; the Hazelwood 500 kV/220 kV transformers are addressed in Section 5.2.1; and the possibility of overload of the Yallourn Rowville 220 kV lines was currently mitigated by wind monitoring schemes. (see Chapter 5, Section 5.2.1, for more information). VENcorp

significant donations to the Liberal Party of Australia, Queensland division," he said.

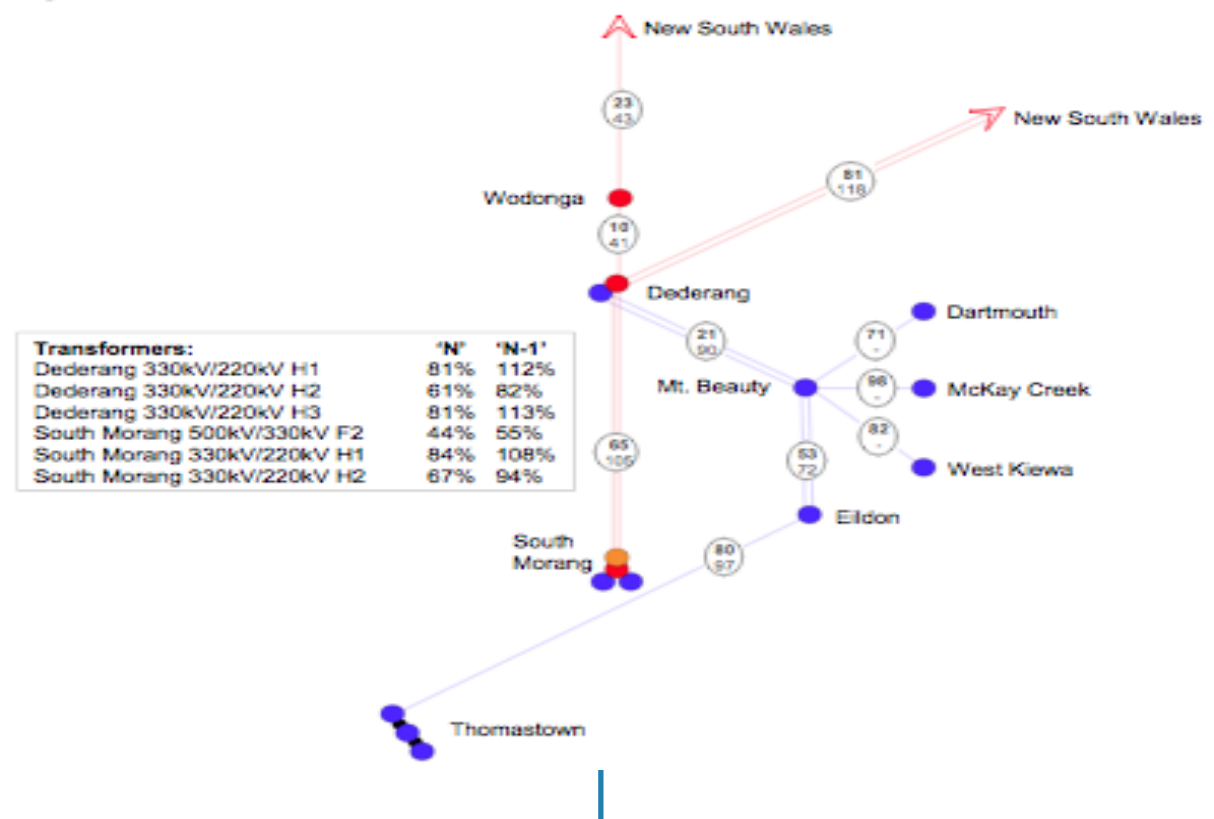
3 donations: The record showed he donated:

- \$20,000 on 12 October 2005;
- \$5,000 on 17 November 2005; and
- \$11,000 on 13 April 2006.

Ergas fills Menzies coffers: "The Australian Electoral Commission funding and disclosure donor record also shows that on 28 June 2006 he donated \$20,000 to the Menzies Research Centre. Accusation about NSW GST windfall gains: "Not only was Ergas a paid-up and committed donor to the Liberal Party, which hardly made him an independent economic commentator, he seemed to have paid his fee for the attack on the States, which makes one wonder about some of his economic assumptions. Ergas repeated the Howard-Costello falsehood that New South Wales has received windfall gains as a result of the introduction of the goods and services tax [GST]. This was simply not true. New South Wales was not receiving any windfall gains from the GST. New South Wales taxpayers continue to be ripped off. They pay \$2.4 billion more in GST than they would get back from Peter Costello".

Reference: Graham James West, Member for Campbelltown, Minister for Gaming and Racing, and Minister for Sport and Recreation, Australian Labor Party, Legislative Assembly, NSW, 6 June 2007.

How Vic Northern Corridor interconnected to Snowy region



Northern Corridor layout: The Northern Corridor includes interconnections to the Snowy region. This corridor also includes electrical transmission for Victorian hydro-electric stations: West Kiewa, McKay Creek, Dartmouth and Eildon. The figure above shows the electrical layout of the Northern Corridor's electricity transmission assets and includes: 330 kV interconnection between Dederang and Murray (Snowy Region); 330 kV transmission lines between Dederang and South Morang; and 220 kV transmission lines to connect the Victorian hydro-electric stations between Dederang and the Greater Melbourne and Geelong load

centre. The apparent 'N-1' overloadings of: the Dederang 330 kV/220 kV transformers, the Dederang – Murray 330 kV lines, and the South Morang - Dederang 330 kV lines are within short-term ratings. The overload is currently mitigated by generation rescheduling and load shedding. These constraints are addressed in Section 5.2.3; and the South Morang 330 kV/220 kV metropolitan transformers are within short-term rating and addressed in Section 5.2.4. With the installation of new generation, or increases in the interconnector capacity, constraints could emerge (see VENcorp plan, Chapter 5, Section 5.2.3 for more information).

NSW must adopt a policy of self-reliance and exit the NEM, argues Visy; real evidence of failure in the national market

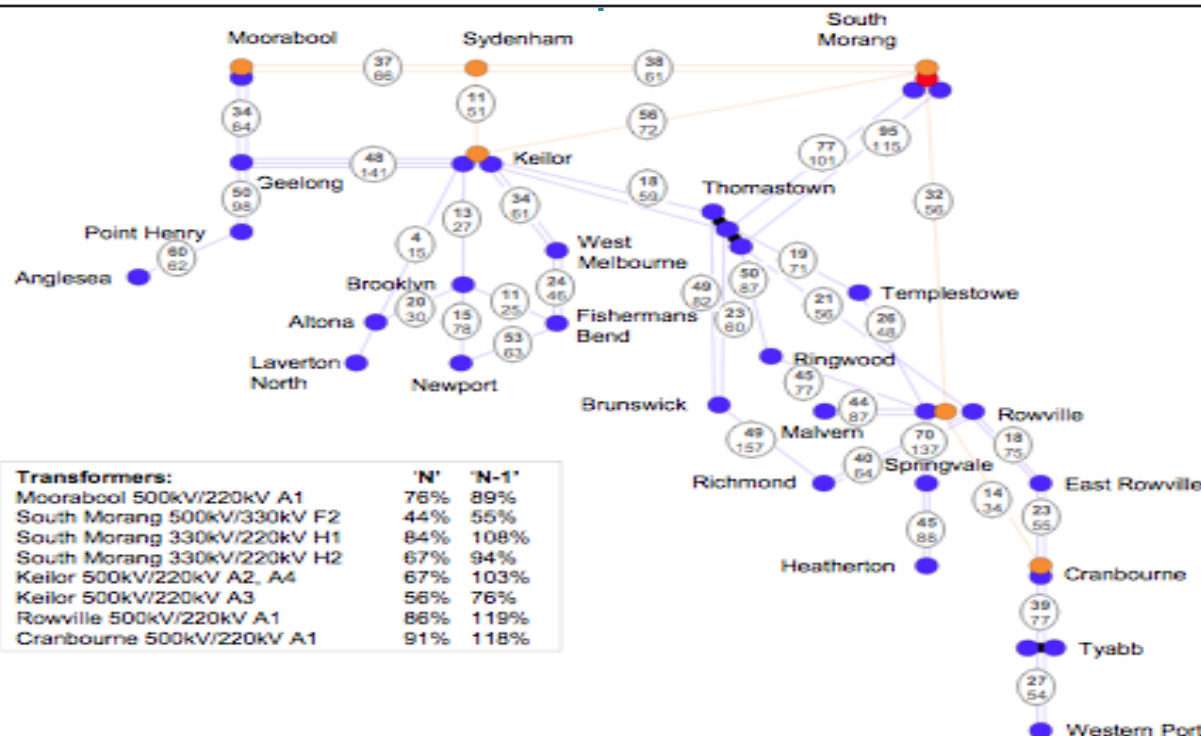
Visy strongly believed that, in the light of past and present experience, it was unwise and imprudent for NSW to rely on the national market to deal with its future electricity supply, the company said in a submission to the NSW Owen Inquiry.

Tine to jump ship: "In short, NSW must look after itself and its own interests, it said:

- there was real evidence of failure – in the national market delivering for NSW "a stable, sustainable electricity supply at prices that will be acceptable".. to the industrial sector; and
- consensus that interstate transmission of electricity for base load use is unviable for a variety of reasons (including economics, planning uncertainty, political interference, and physical infrastructure issues).

Visy argued: "jobs and investment within NSW must be firmly grasped and championed by the NSW Government and should not default to the decisions other States, whose deeper interests are not necessarily aligned with those of NSW". Prepare to go it alone: Accordingly, Visy believed " the NSW Government must take decisive steps to provide for this State's future base load needs without reference to

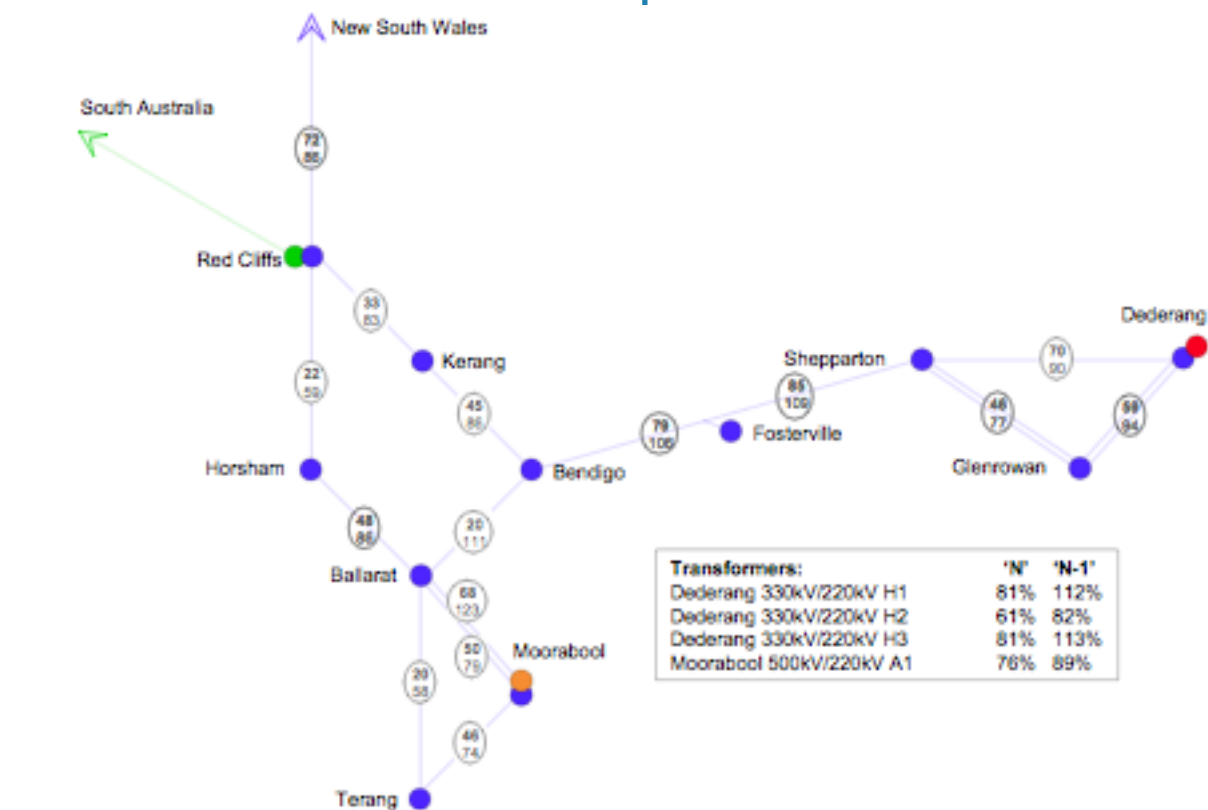
Rowville 500/220 kV transformer to address overload



Metro infrastructure: The infrastructure in and around the greater metropolitan area encompassing Melbourne, Geelong and the Mornington Peninsula comprises two classes of assets in a classic demand centre configuration: an outer 500 kV high capacity ring around most of the territory being supplied; and an inner 220 kV ring and radial connections, mainly supplied from the outer ring, to connection points spread throughout the area. The figure above shows the electrical layout of Greater Melbourne and Geelong's electricity transmission assets. The apparent 'N-1' overloadings of: the South Morang 330 kV/220 kV, Keilor 500 kV/220 kV, Rowville 500 kV/220 kV and Cranbourne 500 kV/220 kV metropolitan

transformers, and the South Morang – Thomastown 220 kV lines are within the short-term ratings and we addressed in Section 5.2.4; the Richmond-Brunswick 220 kV cable is within the short-term rating and the possibility of overload will be mitigated following installation of the second 500/220 kV transformer at Rowville (see Section 3.1); and wind monitoring schemes are used to help manage the possibility of overload of the Keilor – Geelong 220 kV and Rowville – Springvale 220 kV lines. With the installation of new generation or load connection, constraints could emerge (see VENcorp plan , Chapter 5, Section 5.2.4 for more information).

Regional Vic served by 220kV transmission network



Regional Victoria network: Victoria's regional areas are mainly served by a 220 kV transmission network that delivers energy to provincial cities and regional load centres. These lines are influenced by the level of demand at Regional Victorian terminal stations, as well as the amount of transfer across the HVDC interconnector between Red Cliffs in Victoria and Berri in South Australia. A number of Regional Victoria's transmission lines also form parallel paths with the Northern Corridor, and are significantly influenced by import and export levels between Victoria and Snowy/New South Wales. The figure above shows the electrical layout of Regional

Victoria's electricity transmission assets. The apparent 'N-1' overloadings of: the Dederang 330 kV/220 kV transformers are addressed in Section 5.2.3; the Moorabool – Ballarat 220 kV lines are addressed in Section 5.2.5; and the possibility of overload of the Bendigo-Fosterville-Shepparton 220 kV line is currently mitigated by a wind monitoring scheme.

the various policies or promises of other States. This was not to say that we should not continue to pursue interconnection options, as part of a total solution, where they make commercial sense”.

And, more imports from Queensland: “With typical capital sums of \$800m per 1000MW of QLD-NSW interconnect capacity, this could be a cost-effective means of bolstering the NSW market, whilst providing a measure of competition for existing NSW generators, who are perhaps benefiting from interconnection deficiencies”.

Reference: Future Baseload Generation for NSW. A submission to the Owen Inquiry June 2007; Contact information Royce De Sousa, Manager – Utilities and Sustainability, Visy 02) 9794 3138

Visy threat: we will leave NSW if the state does not fund expansion of baseload and rewrite the NEM rules

Visy said it would take its bat and ball go home - it would halt its proposed Smithfield expansions and further investment in its Tumut pulp and paper mill complex, if the NSW Government did not;

- expand its generation facilities with required capital injections; and
- allow direct (bilateral) contracts with a limited group of large users, it said in a submission to the *Owen Inquiry*.

In particular, the NSW Government should;

- "seriously review its implicit policy of not allowing (or of actively discouraging) bilateral contractual arrangements between large electricity users and NSW generators";
- must frame and adopt better rules for new generation investment.

No confidence in the NEM: Visy believed the NSW Government should:

- openly acknowledge that the existing rules governing the electricity generation and supply sector do not provide the confidence required for the installation of new base load capacity in NSW, except where the Government is proactive as a 'sponsor' (as currently pertains to the Queensland Government).
- upgrade-investment in existing facilities through a competitive process.

State should contract capacity:The submission warned of Visy "changing its plans for the proposed Smithfield expansions and further investment in its Tumut pulp and paper mill complex".

What Visy wants:

- the NSW Government should direct and facilitate the installation of new base load coal-fired generation capacity;
- constructed on existing generator land/sites to make optimal use of existing

South West Corridor; stability issues could limit power flows



VENcorp plan, South West Corridor developments: The South West Corridor connects the Greater Melbourne and Geelong load centres with Heywood, Portland, and South Australia. Although 220 kV transmission was originally established to supply load in South Western Victoria, 500 kV transmission was subsequently established to supply the Portland aluminium smelter. The last 25 years have seen this corridor's role develop, with electricity connections to South Australia. The figure above shows the electrical layout of the South West Corridor's electricity transmission assets. There is considerable spare thermal capacity in the South West Corridor, compared with the existing supply requirements for the Portland

smelter, and transfer to South Australia through Heywood. However, stability issues could limit power flows ahead of thermal considerations. The apparent 'N-1' overloading of the Heywood 550 kV/275 kV transformer is within the 30 minute short-term rating. The overload is currently mitigated by reducing exports to South Australia; and will be investigated within the planned interconnector review (see Section 5.1), as these assets are part of the interconnector, rather than the shared transmission network. With the installation of new generation or load connections, it is possible for constraints to emerge (see Chapter 5, Section 5.2.2 for more information).

infrastructure at State-owned centres.

Reference: Future Baseload Generation for NSW. A submission to the Owen Inquiry June 2007; Contact information Royce De Sousa, Manager – Utilities and Sustainability, Visy 02) 9794 3138

How NSW gen sets price, when QNI is cut-back and traders know Snowy tactics

In a submission to the *Owen Inquiry into Electricity Supply in NSW*, the Major Energy Users Inc said the market was not working the way it was intended; as “a single 5 minute price spike to VoLL results in a minimum average 30 minute price of \$1667/MWh. This half hour pricing could result even if there were demand side responses available or standby fast start plant available – even an open cycle gas turbine required 2-3 minutes to start generation from cold, and then more time was needed as the turbine goes from closure onto the bus to peak output”.

Market power problems: Therefore, the group argued “The Owen Inquiry should examine; if the exercise of market power has the potential to deter new investment in base load generation.

Split state gen: The consumers’ view ;

- if the large generators (as the price setters);
- can determine the regional price by the exercise of market power; then
- that in itself provides a deterrent to new generation. “In fact, this would appear to be the implicit conclusion of the ERIG report”.

Three large NSW generators, price setters: “The structure of the generation ownership in

NSW was such that there was minimal competition, and the three large generators were sufficiently sized that they have the ability to be price setters when QNI was constrained, and when the market knew the pricing approach of Snowy”.

Price signal, but no action? The average annual spot price in NSW over the past five years had been greater than the new-entrant price for base load generation, yet no such investment has occurred. “This might be attributable to the fact that a significant proportion of the NSW annual average spot price was achieved by the exercise of market power”, it argued..

Reduce size of NSW State generators: “If this was the case (and consumers are of this view) then the three large government owned generators have the ability (due to their market power) to drive the price down as well as up. This must be a concern to a new investor looking at generation in NSW. It would seem that by reducing the size of the three government owned generators in NSW, therefore reducing market power and increasing competition, this could well provide a new investor with greater certainty of achieving targeted returns”.

Reference: The Owen Inquiry Into Electricity Supply in New South Wales Comments by Major Energy Users Inc June 2007 Assistance in preparing this submission by the Major Energy Users Inc was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.

Major Energy Users says generators profitable at \$34-35/MWh: earn 21pc margin

In a submission to the *Owen Inquiry into Electricity Supply in NSW*, the Major Energy Users Inc said electricity prices (faced by major industrial users) were too high and competitive drivers in the NEM were so weakened that the future competitiveness of trade-exposed energy intensive industries in Australia (and New South Wales) was of concern.

Generator power and profits: The MEU submission said “Generators Annual Reports showed they were;

- comfortably profitable at average annual revenues of around \$34-35/MWh in 2003/04, and
- generally achieved a markup of at least \$5/MWh above pool prices each year.

This figure was close to the Long Run Marginal Cost of new generation based on the latest independent estimates, argued the MEU..

Rules make generators create spikes? The MEU argued the design of the NEM trading

system was such that;

- generators must bid above marginal costs; and
- cause price spikes (when conditions are conducive to them), in order to achieve a satisfactory level of annual revenue”.

The MEU logic: Butm “Bidding on a fully competitive basis, on Short Run Marginal Costs (SRMC), will not produce sufficient revenues for existing or new generators. The difficulty is — how much noncompetitive activity is tolerable and how is this to be measured?; generators achieve price spikes by withholding capacity — both physically and economically — by their bidding and rebidding practices and by exploiting limited interconnection capacities”.

Parking bids at high price: “The practice of ‘parking’. large amounts of capacity at prices close to the maximum allowed was prevalent; and the change of VoLL from \$5,000/MWh to \$10,000/MWh in 2002 led to generators roughly halving the number of price spikes but doubling the value of them, achieving about the same level of annual revenue. This increased the level of price volatility and risk significantly, it said.

High profits in 4 years out of five:

“Generators appear to have succeeded in achieving annual revenue significantly above Long Run Marginal Costs in four of the five years of NEM operation. Based on the analysis in this report, the average markup

above LRMC is estimated to have been 21 per cent.”

Risks transferred to users “Customers pay higher tariffs because of ;

- generator behaviour — through pool and hedge contract prices that are higher than necessary; and by
- less efficient operation of generation, and
- additional costs associated with covering the risk of pool price volatility;

Mergers to make things worse: The MEU warned “Any reduction in the number of participants should be a cause for concern by end-users”, and said:

- horizontal merger activity is of particular concern in Victoria and South Australia, where concentration of ownership has increased in recent times, and
- concentration of ownership remains a difficult problem given common Government ownership of companies in New South Wales and Queensland;
- vertical integration is also of concern as it inevitably reduces competition in both wholesale and retail markets.

User solution: The MEI argued it was time to;

- place all major power stations in separate independent ownership and
- to set a strong, essentially constraint free, transmission system in place.

Merger constraints not working: The MEU said existing ACCC merger guidelines were not appropriate for the electricity sector, where participants with a very small market share could exercise market power and significantly affect pool prices.

Reference: The Owen Inquiry Into Electricity Supply in New South Wales Comments by Major Energy Users Inc June 2007. Assistance in preparing this submission by the Major Energy Users Inc was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.

NSW needs 7800 MW from 2007 onwards, - and has it - but big gen, keeps it offline

In a submission to the *Owen Inquiry into Electricity Supply in NSW*, the Major Energy Users Inc said NSW had a minimum continuous need for power of at least 6000 MW, although this minimum was consistently increasing and currently sits at 6500 MW.

Need for 7800 MW: “Using 6500 MW as the base figure, and allowing for at least one generation unit of 660 MW to be off line at any one time, and another to have an unscheduled but coincident outage, the data indicated that NSW would need at least 7800 MW of power available for continuous dispatch from 2007 onwards.

70 per cent offline: “Baseload plant as used in NSW had a turndown of at least 70 per cent, as the practice used by the NSW baseload generators showed.

Coal fired gen cheapest: The lowest cost option was using coal fired generators, operating at near their maximum output. It was not possible to operate consistently at maximum output as the demand varies within a day, and it was inefficient to shut down and then start a coal fired generator on a daily basis. Therefore, such generators were designed to operate efficiently over a range of outputs.

Raise baseload gen to 11,200 MW: Accepting that a NSW baseload generator does efficiently operate at a turndown of 70 per cent, the base load generation in NSW needed to be 11,200 MW for current needs. This would provide the least cost option for NSW electricity consumers.

Reference: The Owen Inquiry Into Electricity Supply in New South Wales Comments by Major Energy Users Inc June 2007 Assistance in preparing this submission by the Major Energy Users Inc was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.

Adelaide call: fire up emergency diesel gensets for peak load; fit load-limiting widgets in households

Some of Adelaide's biggest industrial and commercial electricity users will be asked to fire -up their emergency generators to help maintain power supplies during periods of peak demand, reported *The Advertiser* (5/7/2007, p.7).

Devices to limit power usage: ETSA Utilities also planned to install switching devices in family homes to restrict the amount of power an individual customer can use.

Major users told to switch to generators: The Essential Services Commission - which was funding a \$20 million, five-year program to try to regulate electricity demand - had called for two pilot projects. Large electricity consumers including shopping centres, hospitals and other businesses with standby diesel and gas generators on-site in case of blackouts - there were to be asked to switch them on during peak demand.

EPA thumbs up: The Environment Protection Authority endorsed the use of generators subject to "acceptable" pollution and noise levels. The commission has instructed ETSA Utilities to work with developers during the planning stages of major new buildings to have generators installed during initial construction where possible

Country Energy: can customers pay bills if high price passed on? maybe we can't pay peak price, either

According to a submission to the Owen Inquiry into Electricity Supply in NSW by Craig Murray, Managing Director of Country Energy, said IPART's latest regulated retail electricity pricing determination and the

phasing out of the ETEF, was expected to see regulated pricing increasingly replaced by competitive contract based pricing arrangements in the medium term.

ETEF risk management: In the meantime, Country Energy's financial sustainability as a standard retailer largely depended on having access to affordably priced wholesale electricity.

Country Energy counts the risks:

- if a standard retailer cannot source electricity at or below the relevant regulatory allowances, it will be unable to recover those costs from customers, and would have to absorb any cost difference;
- At present, (NSW State contracts - ETEF) manages this risk, but.. the ETEF will be phased out over time.

Who takes the risk? "ultimately this may create affordability issues for customers if regulated pricing needs to be set too high and customers are unable to obtain an affordably priced retail electricity contract from a competitive retailer.

Reference: Craig Murray, Managing Director, Country Energy, Submission to the Owen Inquiry into Electricity Supply in NSW, 29 June 2007

Visy contracts between generator and end-customer

In a submission to the NSW Owen Inquiry, Visy said that, except in very special cases,

there was currently no practical way NSW electricity users can contract directly with current or future generators for long-term electricity supply. Visy wanted long-run electricity prices to be struck, with rise and fall linked to long-run input costs.

The contracts Visy wants: "In the case of coal-fired generators, for example, these would comprise the cost of coal and labour, plus an acceptable margin.

Visy needs baseload: Visy was one of the few large electricity users in NSW that operated under a large, flat load. This was unlike other notable large users who have "load following" contracts where the load variation risk is largely taken by the generators.

Reference: Future Baseload Generation for NSW - A submission to the Owen Inquiry, June 2007

How to make NSW price spikes; wait until line-flow cut, then, withdraw capacity

In a submission to the *Owen Inquiry into Electricity Supply in NSW*, Major Energy Users Inc said price spikes tended to occur when;

- generators were aware that the interconnections between regions are constrained; and so,
- allow the regional generators to set

prices (in other words to exercise market power).

NSW systems allows price setting: The common ownership of the three large generation groups in NSW allowed this practice to regularly occur in NSW, it told The Owen Review.

How to make price spikes: The submission said "the purpose in describing this easy ability by generators to use regional market power was to highlight that ;

- a region which is a net importer of power where the regional generators were able to reduce power generation to force high priced imports; or
- to cause high priced regional generation to be dispatched;
- allowed large regional generators (the price setters), to exercise market power.

A revenue generator: This action will always be to increase large generator revenue and will therefore be to the detriment of consumers.

NEM a money-spinner: "The very structure of the NEM permits, even encourages, generators to use their market power to create the price spikes seen in the NEM. The primary tool used to encourage reliability in the NEM (particularly that of increasing VoLL) provides the mechanism for generators to further use their market power to maximize revenue and profits".

Reference: The Owen Inquiry Into Electricity Supply in New South Wales Comments by Major Energy Users Inc June 2007 Assistance in preparing this submission by the Major Energy Users Inc was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd.

Peak load rising 4pc; at 4pc peak it doubles every 15 yrs

A winter peak recorded for the NEM on Tuesday 19 June also points to a peak growth rate higher than 3pc. At 3pc growth, meeting peak demand was a considerable challenge, as the peak was effectively doubling in magnitude every 20 years. At 4pc the peak was doubling every 15 years, which provides little time for planning, approval and implementation of appropriate strategies.

Baseload in a long snooze: "The utilization of base load stations was about 60-70pc and the only time we have seen peak prices at off-peak times (ie during times of base generation) is when Snowy Hydro had been pumping heavily at off peak times as a consequence of the recent drought", Energy Response said in a submission to the *NSW Owen Inquiry*.

Peaks rising faster than 3pc per annum: Energy Response was of the view that peaks are actually rising faster than 3pc per annum and may be at or greater than 4pc.