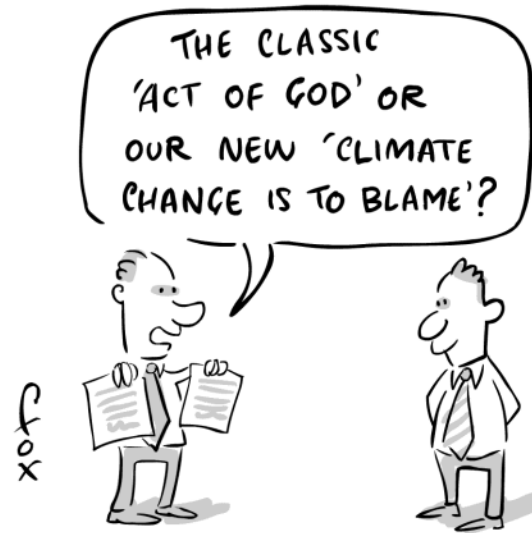


AER to probe "Black Tuesday", p7

Snowy sells into 3hr \$10,000 price, 16 Jan, p5

'Ha ha', says NSW Planning Minister: 69 turbines, p4

electricity week



Blitz of legal opinions opened pre-summer forecast planning

1 On the January 16 Victoria "Black Tuesday", demand was almost 600MW higher than forecast. Extreme temperatures in Victoria, led to a record demand; and 300MW of demand side went missing. Snowy raked it in, with supply of massive lumps of Murray and Tumut 3 generation despite its woeful claims that lack of winter snow had cut fuel to Murray units.

Build-up to summer: In the build-up, letters and legal opinions had whizzed between

AEMC, NEMMCO, BOM, and Snowy and the Southern Generators (*see stories inside*).

Summer 2007 risks: NEMMCO's planning for summer 2007 had forecast risks over three weeks in Victoria and South Australia. IT was alleged Snowy had argued it would use water shortfalls at its Snowy Murray units to increase its income, and at the same time, increase Victorian price and supply risks, if it did not get changes to settlements (funds transfer) methods.

Snowy back tracks: No winter snow, leading to low storage levels at Eucumbene, had cut Murray generation 50pc to 350MW, it said. However, other analysts said 600MW was available if Snowy cycled its Geehi storage. On Black Tuesday - January 16 - Snowy had not trouble finding big whacks of Murray gen. (*see graphs inside*).

Moody bugger: In the run-up to summer Snowy had refused to supply water-level data to NEMMCO, and , NEMMCO had then requested data from the Bureau of Metereology (BOM); Snowy also refused to supply data to BOM. This week, State Governments - the owners of Snowy - applied for compensation, due to low Snowy profitability.

Summer planning arguments: Snowy Hydro was reported as saying its intent was to operate its Geehi storage at low levels, even if

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- 7 AER to probe "Black Tuesday" power crisis in Vic to see if registered participants and NEMMCO complied with Rules
- 8 Summer rainfall not likely over the Snowy Geehi storage on peak demand days for Sydney, Melbourne, Adelaide
- 9 No winter snow: so low Eucumbene means Murray gen cut 50pc to 350MW says Snowy
- 11 Snowy Hydro's intent to operate the Geehi storage at low levels, "unjustified", say Southern Generators
- 12 Tuesday, 23 January: NSW spot price of \$4593.18/MWh; NSW demand exceeds supply
- 14 Land and Environment Court OKs 69-turbine wind farm: 'Let that be a lesson' says NSW Planning Minister
- 15 Mainland NEM ancillary services cost \$112,000 for week, with Tas adding another \$68,000, AER analysis shows

Find out more at the subscriber section of www.erisk.net

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Top price for NEM week 4-10 Feb 2007: Oakey at \$443.00/MWh

ewn publishing

TAS			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Liap/Way/Cat	\$789,838	15,776	\$50.07
Bell Bay Power	\$791,506	15,652	\$50.57
John Butters	\$173,815	3,208	\$54.18
Tungatinah	\$443,770	8,553	\$51.89
Poatina	\$530,228	11,711	\$45.28
Tarraleah	\$610,916	12,328	\$49.55
Reece	\$473,431	7,809	\$60.63
Cethana	\$165,159	1,544	\$106.95
Tribute	\$80,340	1,315	\$61.10
Lemonthyme/Wilmot	\$75,737	1,221	\$62.03
Trevallyn	\$67,063	1,242	\$53.98
Mackintosh	\$288,371	6,137	\$46.99
Bastyan	\$252,884	5,108	\$49.51
Woolnorth Wind	-	-	-
Gordon	\$1,552,006	33,618	\$46.17
Vic->Tas	\$2,530,740	47,568	\$53.20
Devils Gate	\$139,253	2,565	\$54.30
Fisher	\$102,901	2,037	\$50.53
Meadowbank	115916.6676	2313.83	\$50.10
Lake Echo	201006.3271	4062.455	\$49.48
Repulse	-	-	-
Paloona	-	-	-
Cluny	-	-	-

Victorian supply reliability was under threat, said its competitors, the Southern Generators.

NEMMCO forecasts skewed: Pre-summer, NEMMCO had concluded the probability of a reserve shortfall occurring at all in the summer period was less than 10 per cent. The times it forecast risks, were:

- 23 Jan 2007 - 60MW reserve shortfall for Vic + SA;
- 7 Feb 2007 - 170MW reserve shortfall for Vic + SA; and

SA			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
North'n Power	\$3,764,184	82,137	\$45.83
Ladbroke	\$209,130	1,702	\$122.85
Osborne	\$1,244,295	25,483	\$48.83
Pelican Pt	\$3,244,883	66,609	\$48.72
Torrens Is. B	\$2,128,890	34,256	\$62.15
Vic->SA	\$1,315,089	26,591	\$49.46
MLink->SA	\$24,191	479	\$50.46
Torrens Is. A	\$982,811	11,826	\$83.11
Mintaro	\$104,218	522	\$199.63
Dry Creek	\$159,935	606	\$263.72
Playford	\$1,027,421	20,356	\$50.47
Snuggery	\$3,921	30	\$131.13
Pt Lincoln	\$510	5.73	\$88.96
Quarantine	\$167,729	1,144	\$146.61
Angaston Power	\$44,316	107	\$415.47
Hallett Power	\$374,401	2,485	
Lonsdale	-	-	
Terminal Storage	-	-	
Lake Bonney Wind	-	-	

VIC			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Loy Yang A	\$13,613,434	345,561	\$39.40
Loy Yang B	\$7,063,129	175,364	\$40.28
Hazelwood	\$10,149,130	243,004	\$41.77
Yallourn	\$8,655,294	230,854	\$37.49
Anglesea	\$996,077	24,488	\$40.68
Energy Brix	\$823,212	21,059	\$39.09
Newport	\$366,965	6,653	\$55.15
MLink->Vic	\$33,744	1,144	\$29.50
SA->Vic	\$242,673	1,704	\$142.40
Snowy->Vic	\$2,549,884	17,653	\$144.45
Tas->Vic	\$1,048,617	7,271	\$144.21
Jeeralang	-	-	-
West Kiewa	\$73,677	334	\$220.65
Bairnsdale	\$312,530	4,445	\$70.31
Dartmouth	-	-	-
Eildon	\$111,917	1,155	\$96.92
Hume Vic	-	-	-
McKay Power	\$119,080	285	\$417.58
Clover	-	-	-
Valley Power	\$1,352,505	23,795	\$56.84
Rubicon	-	-	-
Laverton North	142368.696	24246.06	
Somerton Power	234111.792	1303.855	
Sunshine Energy	-	-	-
Longford	-	-	-

NSW			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Bayswater	\$14,421,217	339,107	\$42.53
Liddell	\$8,767,731	213,855	\$41.00
Mt Piper	\$7,659,209	173,660	\$44.10
Wallerawang	\$2,919,976	70,163	\$41.62
Vales Point	\$6,707,605	158,416	\$42.34
Munmorah	\$2,626,605	58,516	\$44.89
Eraring	\$14,155,862	332,684	\$42.55
Redbank	\$943,492	23,125	\$40.80
Smithfield	\$907,156	19,927	\$45.52
Snowy->NSW	\$4,174,302	56,635	\$73.70
Shoalhaven	\$813,914	19,075	\$42.67
Hunter Valley	-	-	-
Hume Hydro	-	-	-
Blowering	\$43,810	1,062	\$41.26
Northern Gas	-	-	-
Burrinjuck	-	-	-
Brown Mountain	-	-	-
Keepit	-	-	-
Broken Hill	-	-	-
Ergon Energy	-	-	-
DL Q->N	\$560,594	13,405	\$41.82
QLD->NSW	\$4,295,888	100,494	\$42.75
Pindari Hydro	-	-	-
West Nowra	-	-	-
Country En (NSW)	-	-	-

QLD			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Tarong	\$9,768,222	257,849	\$37.88
Millmerran	\$3,944,542	113,777	\$34.67
Swanbank	\$1,850,628	43,454	\$42.59
Stanwell	\$7,891,908	201,361	\$39.19
Callide B	\$3,927,537	102,097	\$38.47
Callide Power	\$4,303,668	108,131	\$39.80
Townsville	\$1,405,424	37,389	\$37.59
Gladstone	\$6,988,718	169,882	\$41.14
Collinsville	\$174,827	5,882	\$29.72
Swanbank C_D_E	\$1,987,219	49,973	\$39.77
Barcaldine	\$159,653	2,444	\$65.34
Callide A	-	-	-
Kareeya	\$547,429	14,748	\$37.12
Barron Gorge	\$407,574	10,972	\$37.15
Mt Stuart	\$236	10	\$22.53
Wivenhoe	-	-	-
Braemar Power	\$1,797,897	33,762	\$53.25
Mackay	\$1,300	31	\$41.49
Roma	\$76,961	375	\$205.18
Oakey	\$79,940	180	\$443.00
DL N->Q	-	-	-
NSW->QLD	-	-	-
Rocky Point	-	-	-
Tableland	-	-	-
Stapylton	-	-	-

2

- 22 Feb 2007 - 40MW reserve shortfall for Vic + SA.

An actual crisis came 16 January: In planning for summer, on 5 September 2006, Brian Spalding, chief operations officer, NEMMCO, wrote to Dr John Tamblyn, chair, Australian Energy Market Commission, in response to the rule-maker's question as to whether an intervention (direction) by NEMMCO was needed in January, or February, March 2007, if Snowy Hydro was to keep the Geehi storage at a low level (i.e. 25 per cent instead of 80 per cent of capacity).

Geehi games: NEMMCO said it did not expect a significant degradation in reserves for 2006/07 as a result of the operation of Geehi at about 25 per cent capacity. "A probability figure cannot be developed without detailed modelling but (a Geehi direction) would be expected to be a low likelihood event." Geehi may hold 4,000MWh of Murray generation. NEMMCO said the reasons why, were:

- NEMMCO was only able to intervene on the basis of anticipated reserve levels being insufficient; and
- Laverton North Power Station was available from mid-November.

3

Geehi storage had three ways to be filled: They were: inflows, water diversion from Eucumbene, and pumping from Jindabyne. With low Geehi water storage levels, the Murray side of the Snowy scheme may be limited in its capacity to generate.

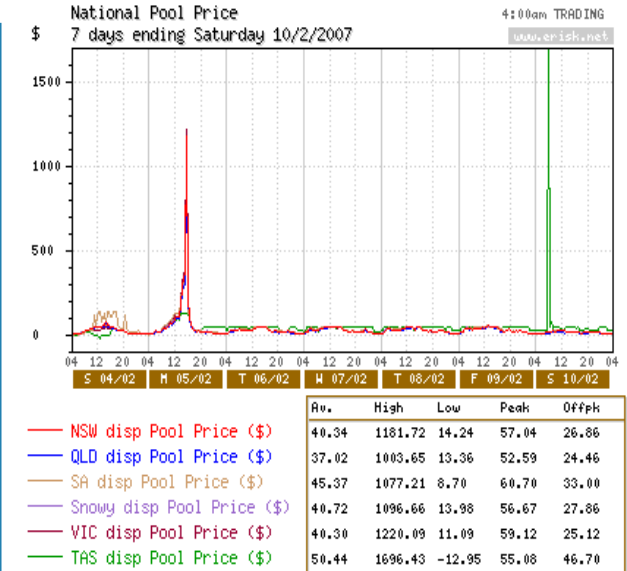
the week in detail

• **NSW:** Average price \$40.34/MWh, up 1 per cent on the spike-affected \$39.75/MWh the previous week, up 114 per cent on the \$18.82/MWh of the comparable week last year; maximum price \$1181.72/MWh for the 30-minute trading interval ended 1600EST on Monday. Average demand 9225MW, up 1.9 per cent on the previous week, up 6.3 per cent on a year ago; maximum demand 12,019MW in the 1530EST interval on Monday, down 4.9 per cent on the 12,643MW the previous week.

• **Victoria:** Average price \$40.30/MWh, up 17 per cent on the spike-affected \$34.59/MWh the previous week, up 132 per cent on the \$17.38/MWh of the comparable week last year; maximum price \$1220.09/MWh for the 30-minute trading interval ended 1600EST Monday. Average demand 5945MW, up 1.4 per cent on the previous week, up 7.0 per cent on a year ago; maximum demand 8738MW in the 1530EST Monday interval, up 5.4 per cent on the 8290MW the previous week.

• **South Australia:** Average price \$45.37/MWh, up 16 per cent on the spike-affected \$39.05/MWh the previous week, up 123 per cent on the \$20.38/MWh of the comparable week last year; maximum price \$1077.21/MWh for the 30-minute trading interval ended 1600EST Monday. Average demand 1607MW, down 2.3 per cent on the previous week, up 15.8 per cent on a year ago; maximum demand 2607MW for the 1400EST Monday interval, up 2.1 per cent on the 2554MW the previous week.

• **Queensland:** Average price 37.02/MWh, down 36 per cent on the spike-affected \$57.46/MWh the previous week, up 91 per cent on the \$19.39/MWh of the comparable week last year; maximum price \$1003.65/MWh for the trading interval ended 1600EST on Monday. Average demand 6184MW, down 4.4 per cent on the previous week, down 5.0 per cent on a year ago; maximum demand 7649MW in the 1500EST Friday



interval, down 8.7 per cent on the record 8378MW the previous week.

• **Tasmania:** Average price \$50.44/MWh, up 32 per cent on the spike-affected \$38.12/MWh the previous week, up 48 per cent on the spike-affected \$34.12/MWh of the comparable week last year; maximum price \$1696.43/MWh for the trading interval ended 0830EST on Saturday. Average demand 1060MW, down 1.5 per cent on the previous week, up 2.1 per cent on a year ago; maximum demand 1232MW for the 1430EST Monday interval, down 3.0 per cent on the 1270MW the previous week.

How Snowy re-routes its fuel: NEMMCO said the design of the scheme was to allow:

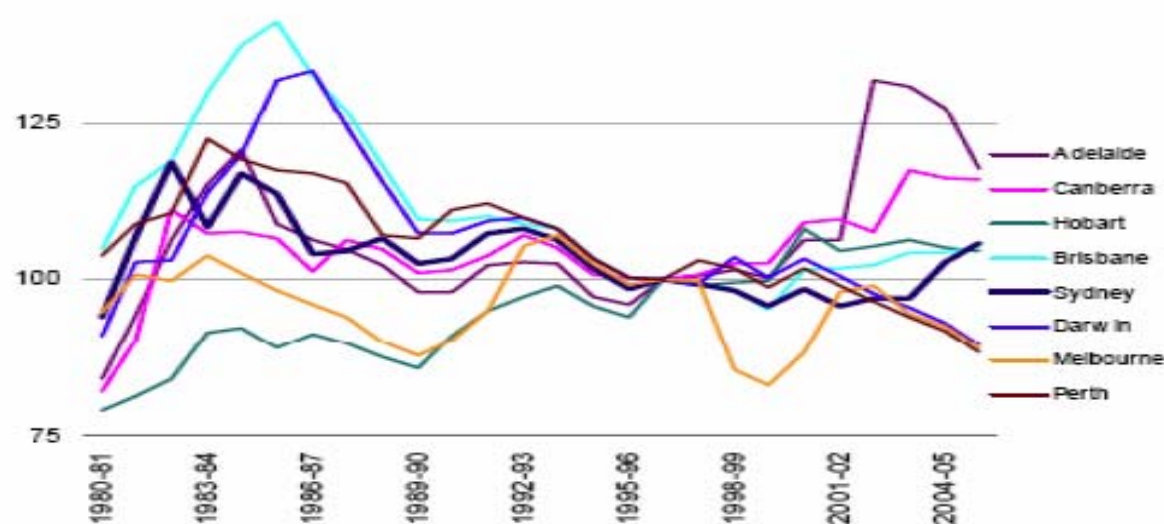
- Jindabyne pumps to supply water to Geehi to enable about up to 27,000MWh of generation per week from Murray; and
- Eucumbene water diversion could supply about 66,000MWh of Murray generation per week with 20 per cent levels in both Eucumbene and Geehi.

Although it was understood that these two sources of water into Geehi were not simply additive due to hydraulic effects, this together with the energy from 25 per cent of Geehi remaining storage (i.e. a residual storage of about 4,000MWh of Murray generation) was expected to be a similar weekly energy limit as the NEMMCO forecast (MT PASA).

NEMMCO concludes - no problem: "Thus NEMMCO does not consider it likely that there would be a significant degradation in reserves as a result of the operation of Geehi at about 25 per cent capacity.

Tea-time with Snowy traders: NEMMCO said "In addition, if NEMMCO is aware of the intention to run Geehi at low levels and seeing a reserve shortfall approaching Victoria and South Australia with about three days notice, then NEMMCO will contact Snowy Hydro to discuss in more detail the energy limitations at Snowy for the upcoming week(s). If NEMMCO assesses that any of the low reserve conditions can be relieved by relaxing some of the energy limitations advised by Snowy, then NEMMCO will

Retail price indices by capital city 80-81 to 04-05



In real 2005-06 values, 1986-87 = 100, using CPI as the deflator. Source: ABS 2006a.

Retail price up in all cities except Melbourne: On a volume weighted basis, prices in the NEM have risen in real terms, at the same time as the disaggregation of the industry was meant to deliver lower prices to consumers from the released productivity increases. Excluding Darwin and Perth - which are not in the NEM and therefore have not been subject to drivers extant in the NEM - the only fall in real electricity prices has occurred in Melbourne.

Major Energy Users Inc; The Voice Of Energy Consumers; Ministerial Council On Energy; Retail Policy Working Group, National Framework for Distribution And Retail Regulation, Comments On: Working Paper 2 by The Major Energy Users Inc and Major Employers Group Tasmania, January 2006. Assistance in preparing this submission by the Major Energy Users Inc was provided by Headberry Partners Pty Ltd and Bob Lim & Co Pty Ltd. Preparation of this report has been partly funded by

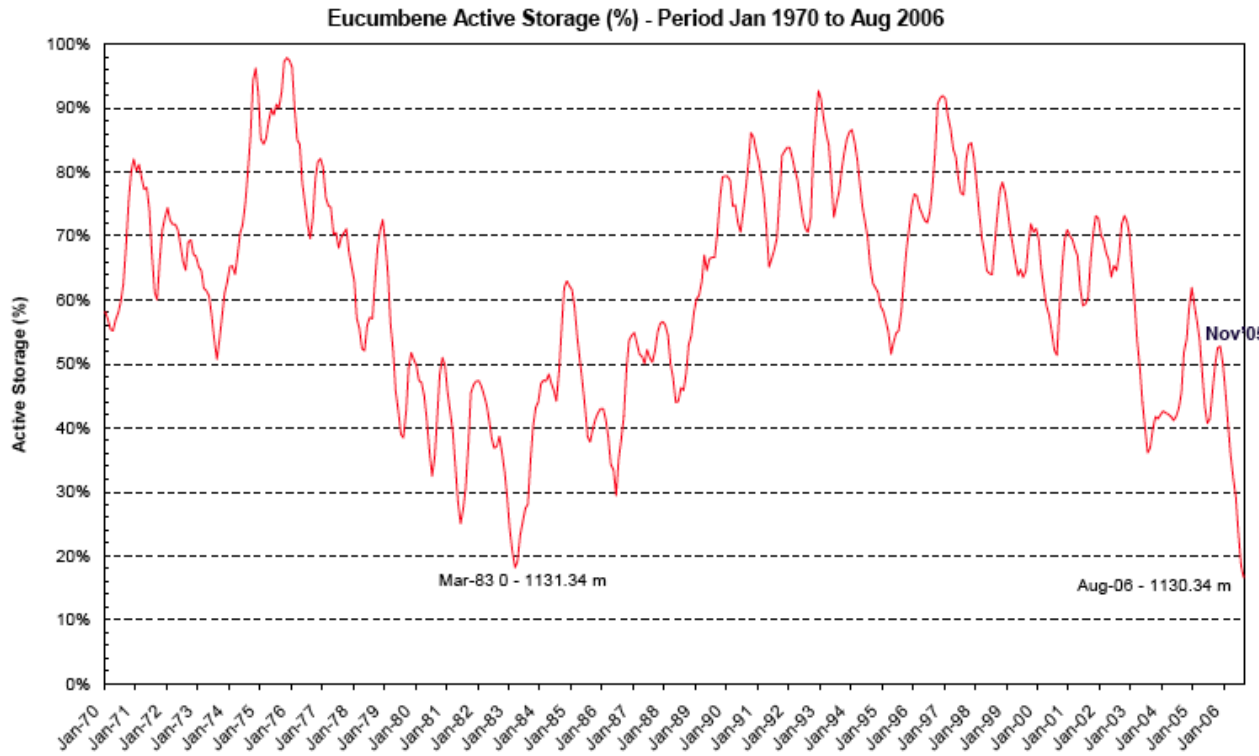
have further discussions with Snowy Hydro to understand the options and then request or if necessary direct Snowy Hydro to increase the Murray station energy reserves. In addition NEMMCO would also assess what other generation capacity limitations or outages by

other participants exist that could be directed to be available.

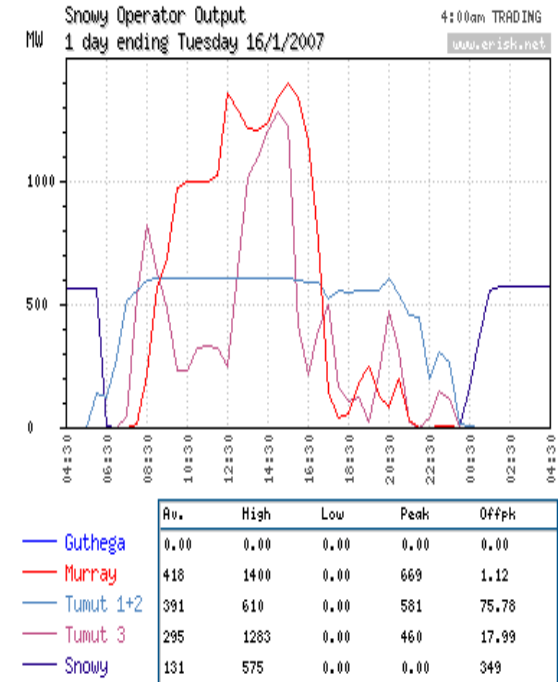
More to come: Currently in Victoria there is one generator with a planned outage in late January and another in February. These outages are subject to change.

Eucumbene at record low: 'no snow on Snowy'

EWN Publishing



Black magic: Its a miracle: Snowy finds water to sell into 3hr \$10,000 price, 16 Jan



5

What if NEMMCO did direct Geehi: " If directed, Snowy Hydro would be expected to rearrange their proposed running regime to provide more energy on the day(s) as required. This could be by rearranging the energy proposed to be utilised in earlier periods from Murray or, if not already fully utilised, to alter water diversion arrangements including pumping.

The 'poor me', Snowy case: Snowy Hydro, in a presentation to the AEMC, said "late 2006, Eucumbene level was the lowest recorded, and given August inflows, the summer situation was critical. For example, inflows for July (received in early August) and August (received just before submission), September and October were normally major inflow months. The July average (over the last 105 years) was 273GL. But, the July 2006 was 67GL. The only lower July flows on record were; 1965, 1967 and 1982. The August average (over the last 105 years) was 345GL. In August 2006 it was 87GL. The only lower August on record was 1982. The prediction for the next period was very low due to

little or no snow cover. The context was the reliability in NSW and Vic in relation to LYMMCO's (Southern Generators) proposal - which removed 1200MW of Murray generation. "(the problem) has been significantly worsened by Eucumbene storage level – (the 2007) summer reliability threat has only crystallised at end of August (2006), and NEMMCO was not practically able to manage the risk". Information was factually available to us only end of August", Snowy Hydro said, at the AEMC briefing

Presentation – Southern Generators proposal, 5th September 2006 <http://www.aemc.gov.au>

The pre summer forecast thinking:

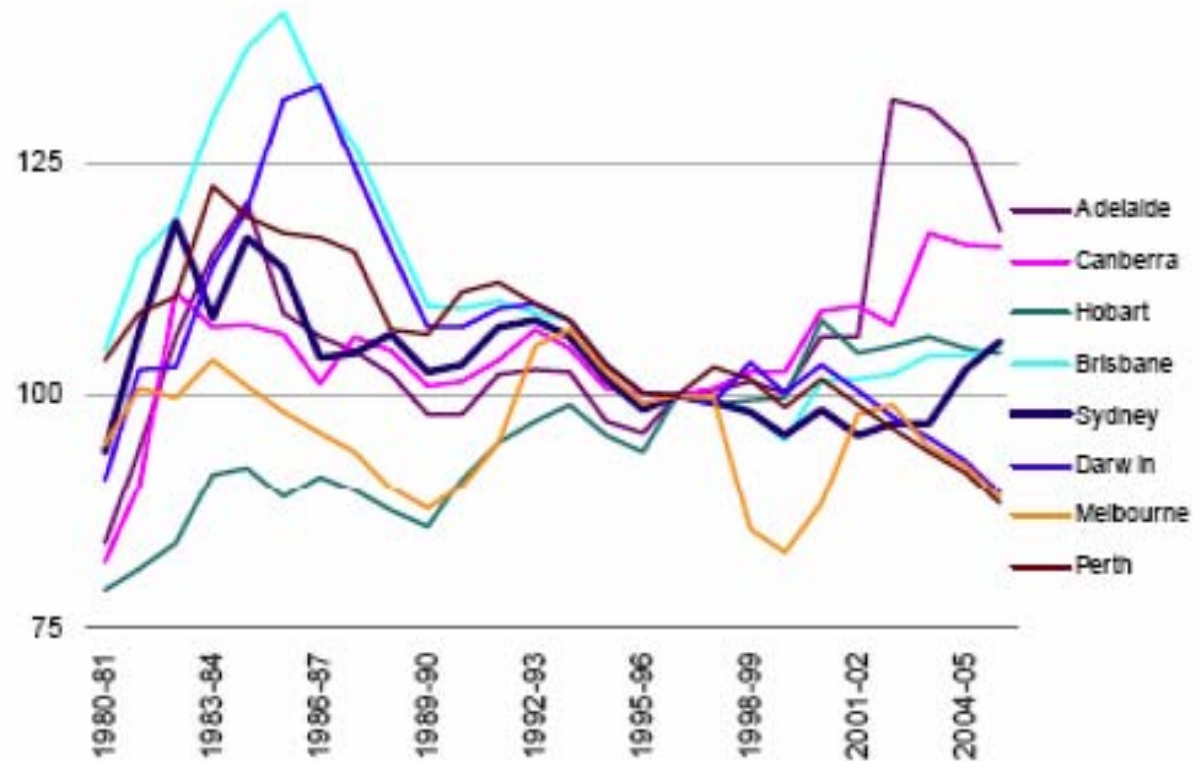
NEMMCO had said “However, for a sudden reduction in reserves due to, say, plant failure, industrial action etc., then depending on the extent of the supply shortfall the low Geehi levels may limit the ability of Murray to generate. Depending on the availability of supply from Tumut and NSW, the requirement from Murray could be as low as 600MW (out of a capacity of 1500MW) to fully utilise the Snowy to Victoria interconnector (at 1900MW from Snowy to Victoria and a limit of about 1300MW from Tumut to Murray). While possible, it is considered that additional load shedding as a result of low Geehi levels to be a low likelihood event. Thus, with the opportunity to direct if necessary to meet a foreseeable reserve shortfall, NEMMCO does not see any significant deterioration in reliability to Victoria and South Australia.”

No power to direct to short notice events:

In terms of the increased likelihood of NEMMCO direction to establish increased energy reserves to Murray, there were many uncertain factors, said NEMMCO:

- availability of supply from NSW and Tumut;
- likely extent of any reserve shortfall and the prior notice of the shortfall;
- Snowy to Victoria interconnector capability;
- the prior use of Murray and the Geehi storage level at the time.

Retail price path before and after NEM-start



In real 2005-06 values, 1996-97 = 100, using CPI as the deflator.
Source: ABS 2006a,

Melbourne the only city which pays less: Small consumers had probably not seen the supposed benefits of deregulation either. Excluding Darwin and Perth which were not in the NEM and therefore had not been subject to drivers extant in the NEM, the only fall in real electricity prices had occurred in Melbourne.

On a volume weighted basis prices in the NEM had risen in real terms, at the same time as the disaggregation of the industry was meant to deliver lower prices to consumers from the released productivity increases. *Major Energy Users*

AER to probe “Black Tuesday” power crisis in Vic to see if registered participants and NEMMCO complied with Rules

The Australian Energy Regulator (AER) will investigate events during the Victorian power crisis on Tuesday, 16 January to determine if registered participants and the National Electricity Market Management Company (NEMMCO) complied with the National Electricity Rules.

Weekly analysis of market: The AER revealed this in discussing the 16 January crisis in its market analysis for the week from Sunday, 14 January to Saturday, 20 January.

High spot price: It noted there were 12 times that day when the spot price in Victoria was greater than three times the weekly average price of \$321/MWh.

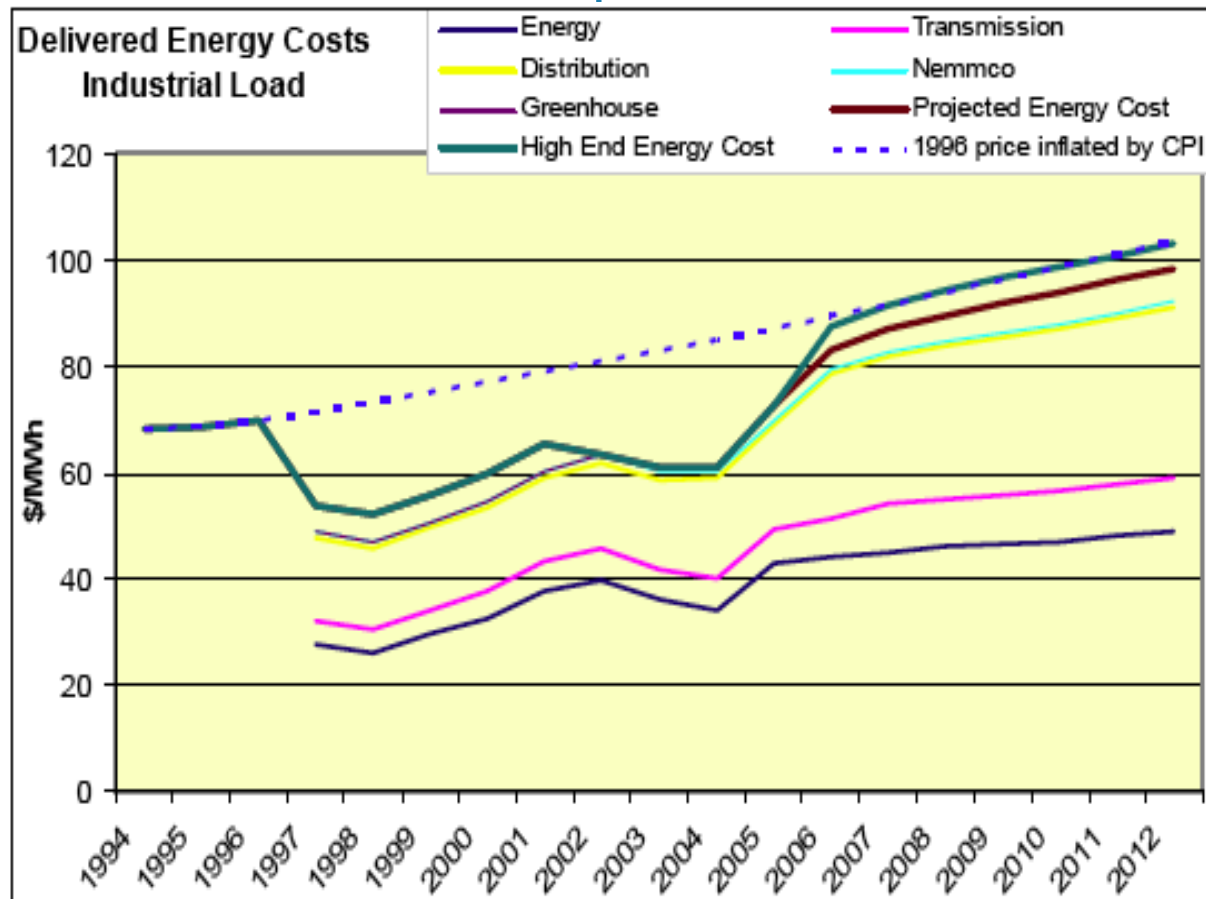
Demand 600MW more than forecast: During the day demand was almost 600MW higher than forecast four and 12 hours ahead. Extreme temperatures in Victoria led to a record demand.

7

Bushfires cause interconnector to open: Around 1500EST, bushfires near the fully loaded Snowy to Victoria interconnector caused it to open, which led to the loss of supply to 2600MW of Victorian customer load.

VoLL price for two hours: NEMMCO intervened setting the price to Value of Lost

Cost of electricity for an industrial load in NSW



Big users’ big complaint: The economic benefits to consumers of the deregulation processes in the 1990s had been reversed and were being taken by supply-side entities and by governments. Changes in the cost of electricity for an industrial load in NSW: the above graph could be replicated for other regions in the NEM showing similar trends. On a holistic basis this demonstrated that there must be problems occurring in

the energy markets if this was the extent of the loss to consumers of the deregulation processes which were initially started to deliver better outcomes for consumers. This observation was confirmed by ERIG in its discussion paper released in November 2006.

Major Energy Users Group

Load (VoLL) for two hours from 1625EST to 1820EST.

Separate pricing report and investigation: The AER said that besides preparing a pricing report in the events of the day as required by the National Electricity Rules it would also investigate the event to determine if registered participants and NEMMCO complied with the Rules.

Reference: Market analysis for week Sunday 14 January to Saturday, 20 January 2007 Australian Energy Regulator (AER). 2 February 2007. Address: Level 11, The Tower, 360 Elizabeth Street, Melbourne Central. Melbourne. Vic. 3000. GPO Box 520, Melbourne. Vic. 3001. Phone: (03) 9290 1444. Fax: (03) 9290 1457. <http://www.aer.gov.au>

Summer rainfall not likely over the Snowy Geehi storage on peak demand days for Sydney, Melbourne, Adelaide: BOM

A letter from Dr Geoff Love, director of Meteorology to Dr John Tamblyn, chair of Australian Energy Market Commission on 7 September 2006, showed summer rainfall was not likely over the Snowy Geehi storage. Love told NEMMCO hotter summers in Adelaide and Melbourne were associated only weakly with lower summer rainfall totals in Khancoban, with the association being somewhat stronger for Sydney.

27 Vic businesses cut retail electricity bills \$ 1.5 million

Opportunity	Number of Sites	Estimated Savings \$ pa	Savings %' of Total Cost of Electricity
More Competitive Retail Rates	21	\$990,173	17%
Tariff Change	7	\$171,200	9.2%
Demand Reset	16	\$357,600	4%
Total		\$1,518,973	12%

NEMMCO commissioned report: Love, in a "Report on historical incidence of summer storms over the Snowy Mountains and the relationship between such storm activity and high temperatures in Victoria, South Australia and New South Wales", said capital cities of Sydney/Parramatta, Melbourne and Adelaide/ Kent Town were chosen as most representative of their respective states for the number of hot spells. Only a few rainfall stations were used to represent the summer rainfall regime in the general vicinity of the Geehi reservoir.

Data 'best available' at short notice: Love said it was possible in the time available (24 hours) to determine the extent to which the stations chosen are indeed representative of the range of variability of summer rainfall in the region.

Energy Lotto: The city of Greater Bendigo, with support from the Bendigo Manufacturing Group, engaged Key Energy & Resources (consultants) to undertake a review of electricity costs for major electricity consumers in central Victoria. The primary objectives of the project were to establish the accuracy of the application of specific regulated charges on demand-tariff business consumers; identify the standard of electricity management practices within these business consumers; and identify the impact on network charges from the reduction in the Transmission Equalisation Adjustment (TEA) payment for these business consumers. A total of 27 businesses were involved in the project conducted between May 2005 and September 2005, covering some 30 sites in central Victoria, with a total annual electricity spend of over \$12,300,000. A total of 27 businesses were involved in the project conducted between May 2005 and September 2005, covering some 30 sites in central Victoria, with a total annual electricity spend of over \$12,300,000.

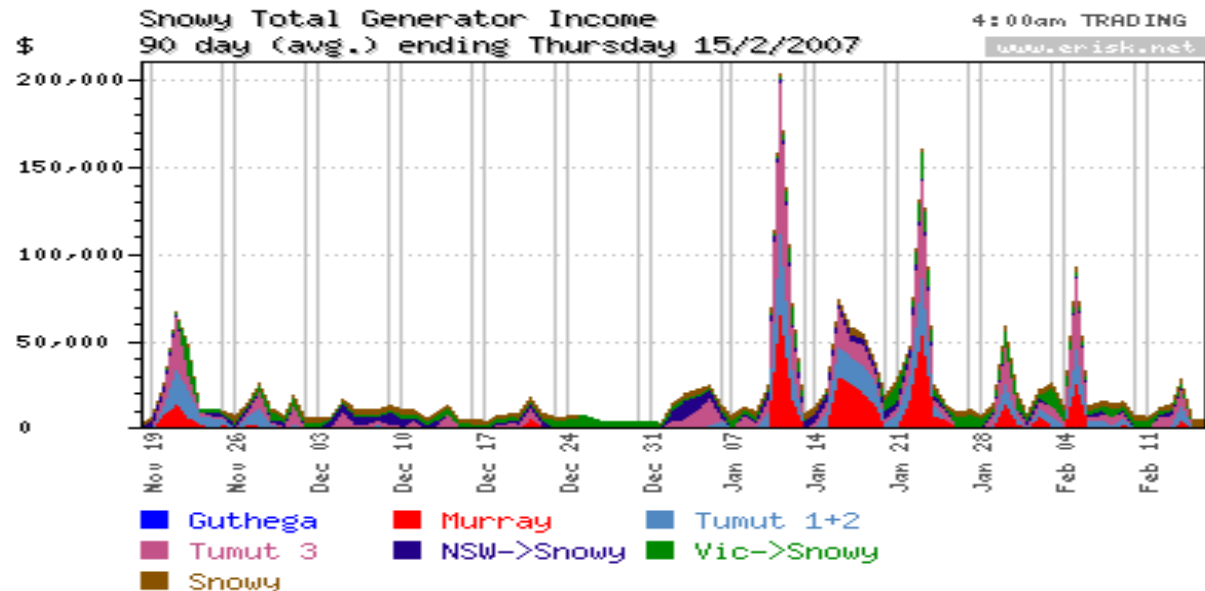
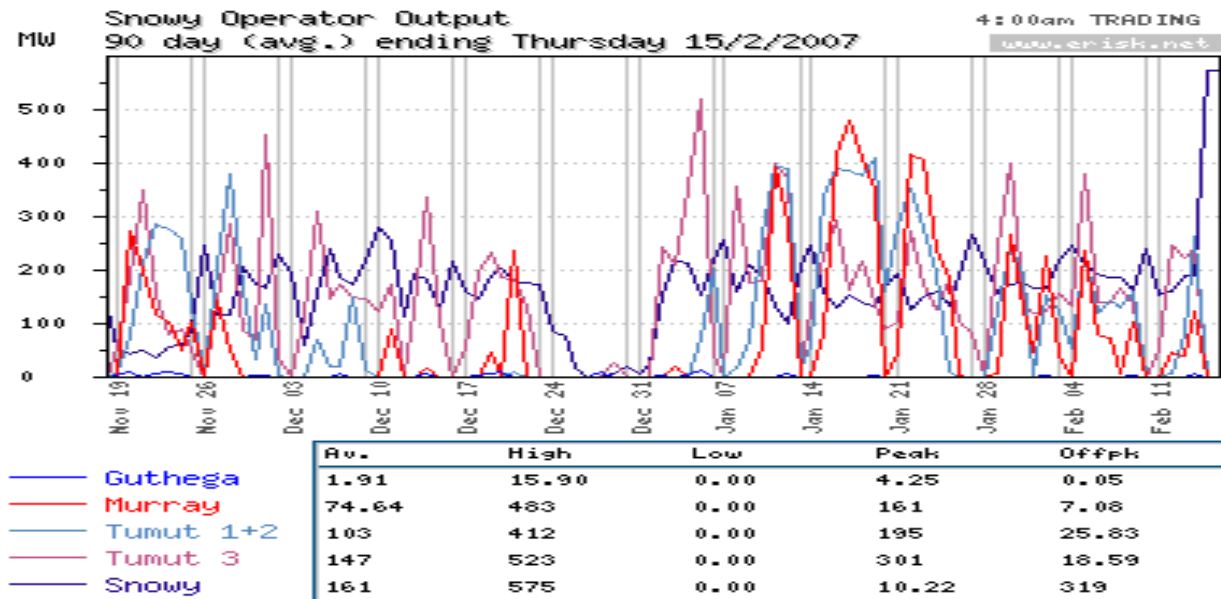
Further information *Charlie Galea or Mark Searle of Key Energy & Resources on (03) 9885-2633 or via e-mail at Charlieg@TheKeyGroup.com.au*

- The likelihood of a significant rainfall event following hot weather at any of the major cities within three days was 13 per cent.
- The likelihood of a rainfall event within seven days increased to 31 per cent.

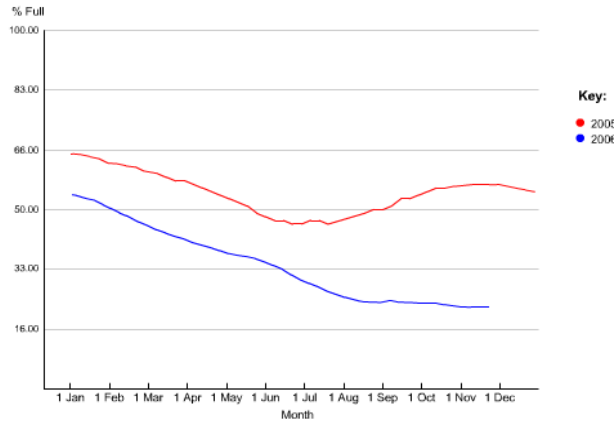
A 30-year analysis of summer rainfall totals in the catchment (using Khancoban), correlated with the total number of days in summer when the temperature exceeded 35 degrees celcius in each of the cities, revealed weak negative correlations for Melbourne (-0.12) and Adelaide (-0.13), and a somewhat stronger negative correlation for Sydney (-0.36).

No winter snow: so Murray gen cut 50pc to 350MW says Snowy

As part of an exchange of letters between Snowy Hydro and NEMMCO, in the run-up to summer Snowy walked the line and said, while it would obey NEMMCO orders, it might need to reduce Murray generation. "Should this arise, NEMMCO would be immediately informed. We would anticipate that a reliability problem would be observed with little warning and in unexpected circumstances. In conclusion, we believe that a direction from NEMMCO would not be effective in managing a reliability shortfall as the potential circumstances arise." The letters were part of an exchange related to Southern Generators rule change proposal impact on Snowy trading tactics.

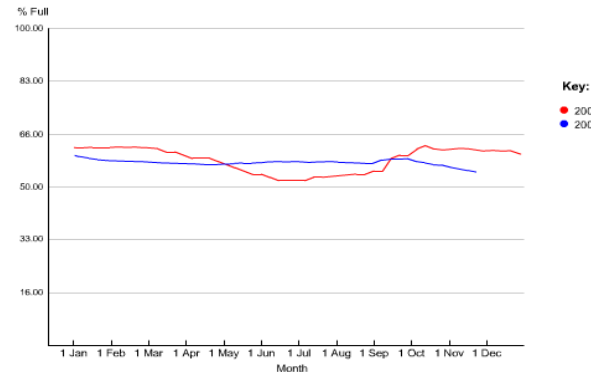


Ecumbene



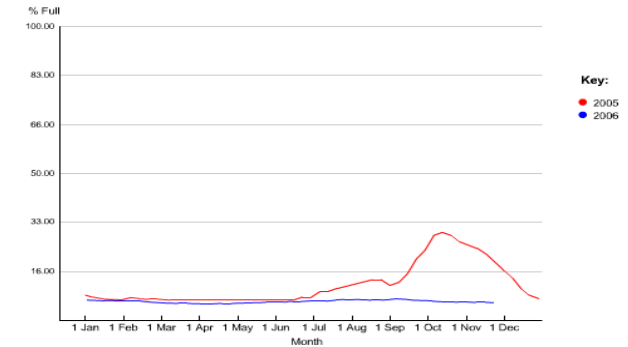
Jindabyne

Lake Jindabyne - 2005 & 2006



Tantangara

Tantangara Reservoir - 2005 & 2006



Battle by letter: in a letter to Brian Spalding, chief operating officer of NEMMCO, Roger Whitby, executive officer, trading, Snowy Hydro, wrote: "With respect to information provision and with regard to following lawful directions issued by NEMMCO, Snowy Hydro will comply with its obligations under law and the NEM Rules. As you noted, Snowy Hydro is obliged to, and routinely does, provide MT and ST PASA (forecasts) to NEMMCO. This includes a weekly energy limit for MT PASA and a daily energy limit for ST PASA".

'We have plenty of water': Whitby wrote, "Based on current storage conditions and outlook we do not expect any longer term Snowy Hydro supply issues for the forthcoming summer. Snowy Hydro also does not expect that it to be feasible for any related reliability issues to be visible in MT PASA for the forthcoming summer."

Yes, we have no water: Whitby referred to discussions in late 2005 regarding NEMMCO's ability to direct in order to manage Victorian reliability risks created by a 'nodally' priced Murray generation market arrangement. At that time it was concluded that it may be plausible to assume that NEMMCO could manage relevant risks by using its power of direction.

Ecumbene too low for high generation: "However, at that time, Ecumbene was at normal levels and diversions from Ecumbene alone could support in the order of 500MWs maximum of Murray generation. Assuming 1900MWs of Victorian import capability and assuming 1300MWs of transfer across the Murray/Tumut cutset, at that time 600MWs of Murray generation would be assured by direction and by assuming a small amount of Geehi storage being available".

Low Ecumbene means Murray 350MW: "However it is now apparent current and expected Ecumbene levels indicate the diversion capability of Murray generation may only be in the order of 350MWs. Accordingly, in the absence of sufficient Geehi storage there may be reduced reliability of supply to Victoria of the order of 250MWs. Based on our modelling we do not anticipate that this physical reduction in capability for diversions will create a reliability of supply problem in itself for Victoria".

Southern Generators proposal impact: The context of NEMMCO's communication to the AEMC was regarding the commercial incentives created by potential implementation of the Southern Generators rule change proposal. "This proposal will create the commercial incentive for Snowy Hydro to target a storage level for Geehi that is 30 per

cent less than current levels target over the summer period".

Geehi dry in 2006-2007 summer: Whitby said, "Our modelling shows that with this reduced target storage level for Geehi, assuming similar utilisation of market Murray generation as per last summer, Geehi will experience a number of storage 'failures' (zero storage levels) this coming summer. We would expect that any reliability issue, should it arise, would also likely coincide with storage failure. In practice forecasting the point of failure will be highly uncertain. Snowy Hydro would need to deploy personnel on the ground at Geehi to monitor environmental issues and safety of personnel and plant."

Reference: Roger Whitby, Executive Officer, Trading, Snowy Hydro (02) 9278 1885.

Snowy Hydro's intent to operate the Geehi storage at low levels, "unjustified", say Southern Generators

Snowy Hydro had claimed it could and would operate the Geehi storage at low levels, even if Victorian supply reliability was under threat - in an expectation of market opportunities, and would operate this way regardless of weather conditions, rather than in response to a credible chance of rain. This was not acceptable, argued the Southern Generators, in a submission to the Proposed

National Electricity Amendment (Management of negative settlement residues by re-orientation) Rule 2006 and draft National Electricity Amendment (Management of negative settlement residues in the Snowy Region) Rule 2006).

Purported policy as commercial strategy:

The Southern Generators said, "We have considered the data presented by Snowy Hydro and we do not believe it supports their proposition that this purported policy is a rational commercial strategy for Snowy. Their argument relies on the coincidence of two low probability events – congestion of the Snowy intra-regional constraint with northward flow, and high inflows to Geehi reservoir making Murray generation necessary to avoid spill."

Claimed inflow condition of in a single day:

Snowy Hydro had emphasised the extreme inflow condition of 3.9GL in a single day. At full output the Murray stations use 3.9GL in less than 5 hours. If Murray generation was limited to 200MW (i.e. 1300 less 1100) to avoid congestion for 5 hours (an extreme case) and were similarly limited to an average of 600MW over the remainder of its run time, the 3.9GL inflow for 24 hours would be used in only 11 hours.

Diversion of Geehi inflows to Jindabyne:

"We also note that Snowy Hydro has another alternative for managing Geehi inflows that they have not disclosed in their submission. This is the diversion of Geehi inflows to Jindabyne. This involves some cost to Snowy in later pumping the water back to Geehi, but allows this to be done at a time when the net

value of the water in generation, after pumping costs, is high. Of the 3.9GL per day quoted by Snowy Hydro, up to about half could be managed in this way", argued the Southern Generators. "This would significantly reduce the need for forced generation at the time of the inflows, below the amount assumed in our analysis above.

Strategy threatened by Snowy Hydro: We also note that the normal storage level range quoted by Snowy Hydro, of 60pc to 80pc, already allows for the short-term storage of all, or at least a major part of the 3.9GL extreme day inflow postulated, hence raising further questions about the need for the strategy threatened by Snowy Hydro. On the basis of information from AEMC and Snowy Hydro, we conclude that in the unlikely event of high Geehi inflows coinciding with a market need for high northerly flows through Snowy, Snowy Hydro could, with a little foresight, manage their forced generation to avoid network congestion. We therefore believe that Snowy Hydro's commercial interest will be served by holding their normal water level in Geehi when Victorian supply reliability is under threat, rather than making good their threat of low storage levels to prepare for this very unlikely coincidence. Furthermore, on the basis of their information, we believe that they could manage such an unlikely coincidence even if it occurred.

Purported effect on customers: "Snowy Hydro attribute 'loss to customer' amounts to the proposal under consideration. We believe

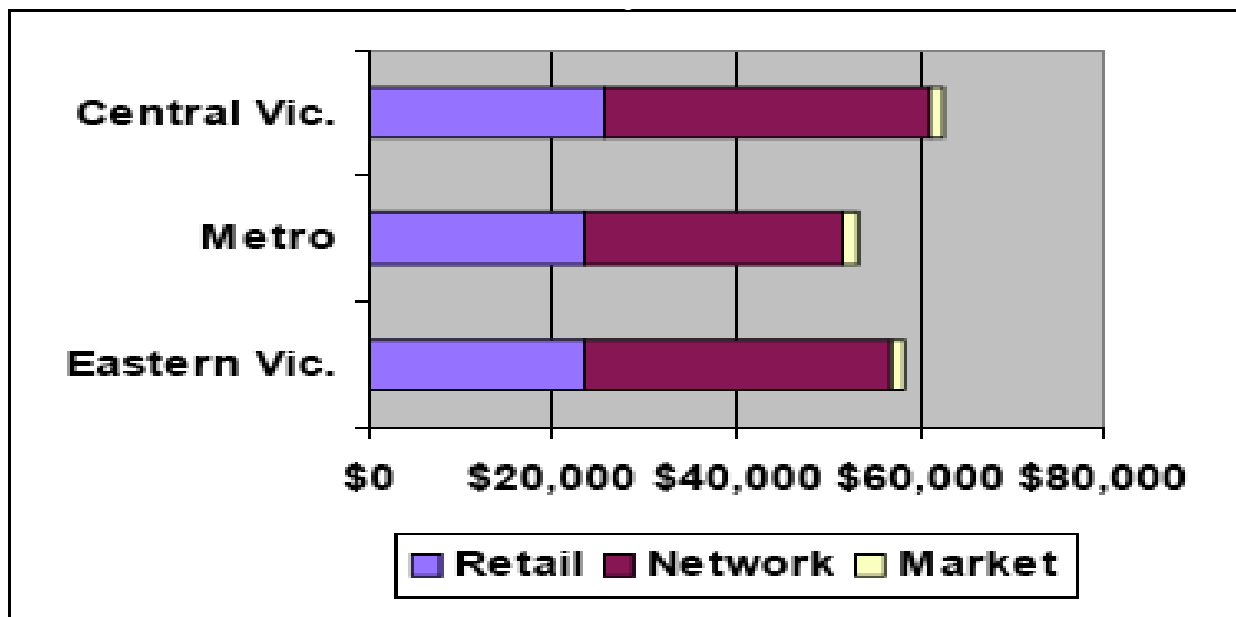
these claims to be wildly inaccurate and unjustified. We note that:

- If Snowy Hydro's interpretation of changes in hedge market movement were correct, an increase in the Victorian price and a reduction in the NSW price would be expected. In fact both prices rose indicating that other explanations underlie the observed changes.
- The prices at the Victorian and NSW regional reference nodes show convergence, as should be expected in a functioning national market.
- The volumes used to define the "loss" are not stated, and the volumes implied by Snowy Hydro's numbers are wildly in excess of any likely traded volumes in Victoria for the period depicted. Market-to-market numbers are purely accounting numbers and not, by their nature, associated with loss to customers.

In any event these movements to the (Snowy) forward curve could be attributed to a number of factors such as recent strong underlying pool prices, forecasts by the Bureau of Meteorology of an el nino effect, the prevailing drought in Tasmania, and recent high spot gas prices. Markets move up and down, there is no guarantee that the current increase will remain".

Reference: Attachment to the letter to the AEMC from the "Southern Generators", dated 7 September 2006: Proposed National Electricity Amendment (Management of negative settlement residues by re-

Cost breakdown for a low voltage demand customer



Electricity costs for deregulated customers paying more than \$20,000 per annum are typically broken down into three major components, i.e. retail charges (including renewable energy certificates and metering); Network Use of System Charges (Network Tariff); and Market Fees including ancillary services.

Cost break-down for a low voltage demand customer in 3 designated distribution areas Powercor's western Victorian distribution region (which encompasses central Victoria), CitiPower's Melbourne-based distribution region and SP AusNet's Eastern Victorian distribution region. Charlieg@TheKeyGroup.com.au

orientation) Rule 2006 and draft National Electricity Amendment (Management of negative settlement residues in the Snowy Region) Rule 2006

Tuesday, 23 January: NSW spot price of \$4593.18/MWh; NSW demand exceeds supply

NSW recorded a spot price of \$4593.18/MWh in the 1530EST trading interval on Tuesday, 23 January, the Australian Energy Regulator (AER) showed in its market

analysis for the week from Sunday, 21 January to Saturday, 27 January.

Region's average of \$63/MWh: The analysis showed this was the only time during the week when the NSW spot price was three times greater than the NSW average price of \$63/MWh.

Demand exceeds capacity: Actual demand at the time was 12,221MW and the available capacity was 9788MW.

Prices generally aligned with Qld and Vic: Conditions at the time saw demand close to that forecast four and 12 hours ahead, with prices generally aligned with those in Queensland and Victoria.

Macgen shifts 670MW: The analysis said that over two rebids at 1337EST and 14447EST, Macquarie Generation shifted a total of 670MW of capacity across its Bayswater and Liddell units from prices below \$30/MWh to prices above \$9000/MWh.

Reasons given for rebids: The rebid reasons given were "Load higher than anticipated", "Constraint management" and "Milling limit". There was no other significant rebidding.

Reference: Market analysis for week Sunday 21 January to Saturday, 27 January 2007 Australian Energy Regulator (AER). 9 February 2007. Address: Level 11, The Tower, 360 Elizabeth Street, Melbourne Central. Melbourne. Vic. 3000. GPO Box 520, Melbourne. Vic. 3001. Phone: (03) 9290 1444. Fax: (03) 9290 1457. <http://www.aer.gov.au>

Real-time meters - winners and losers - seven views

Key Financial Data	Vic	PG&E	SCEd	Ofgem	SDGE	Bayard	OTTER
Benefit Cost Ratio	1.48	1.01	0.59	1.34	1.08	2.03	0.50
Benefits per customer AS NPB	\$474	\$529	\$218	\$295	\$385	\$696	\$309
End-point hardware Net Present Costs \$A/meter	\$125	Not known	\$141	\$131	\$115	\$179	Not known
Total Net Present Costs \$A/meter (including end-point hardware)	\$321	\$525	\$368	\$220	\$357	\$343	\$616
Net Present Value	\$153	\$4	-\$150	\$75	\$28	\$353	-\$307

Huge gains for retailers and distributors: COAG (Council of Australian Governments) agreed on 10 Feb 2006 governments would roll-out of electricity smart meters to allow the introduction of time of day pricing and to allow users to respond to these prices and reduce demand for peak power. The MCE was to agree on common technical standards for smart meters and implement the roll-out as may be practicable from 2007.. with... regard to costs and benefits ...and... market circumstances in each state and territory. There was progress towards a State-wide roll out in Victoria, and companies had trialled or were planning to trial metering

technologies in NSW, Qld, WA and SA. The Commonwealths Solar Cities program would also demonstrate the application of integrated smart meter, renewable energy and energy efficiency technologies. Cumulatively, around 3 million meters were expected to be installed under existing plans. In addition, ETSA Utilities in South Australia was trialling other demand side management technologies over this summer and subsequent years. This would provide a test of an alternative way of managing peak demand.

www.mce.gov.au

Land and Environment Court OKs 69-turbine wind farm: 'Let that be a lesson', NSW Planning Minister tell locals

Construction of a wind farm in the historic township of Taralga was due to begin early next year, after the Land and Environment Court on 12 February ruled the controversial project may proceed, reported *The Sydney Morning Herald* (13/02/2007, p.7).

Locals had appealed against decision:

The judgement upheld the decision of the Minister for Planning, Frank Sartor, to approve the \$185 million project, 45 kilometres north of Goulburn. Locals concerned about noise, visual pollution and impact on wildlife appealed against that decision, made in January last year.

Locals to keep on fighting the good fight:

Martha Graham, of the resident action group Taralga Landscape Guardians, said the town would keep up the fight. "We still believe this is a completely inappropriate place to put a wind farm," she said. "They shouldn't be in full view of an historic town and right on people's property boundaries and within earshot of people."

Court ups the ante: The judgement was a double defeat for the residents because the court allowed for an even bigger wind farm than that originally approved by the minister.

Benefit so high, to supply side - why not make meters free?

Benefit Contribution \$A/meter/year	Vic	PG&E	SCEd	Ofgem	SDGE	Bayard	OTTER	EMCa synthesis ¹	%
Peak reduction - network	\$13	\$2		\$7		\$19	\$3	\$13.00	19.8%
Peak reduction - generation	\$21	\$9	\$11	\$11		\$14		\$12.50	19.1%
Billing & Collection		\$2				\$18		\$10.00	15.3%
Meter Reading	\$11	\$22	\$11	\$3		\$10	\$26	\$11.00	16.8%
Trading risk management						\$12		\$6.00	9.2%
Theft				\$2		\$7		\$4.50	6.9%
Prepay				\$2 ²		\$7		\$4.50	6.9%
Network management		\$3		\$0.12		\$2	\$3 ³	\$2.50	3.8%
Metering savings	\$1					\$1		\$0.50	0.8%
Customer Service	\$1	\$1	\$0.18	\$3		\$1	\$1 ⁴	\$1.00	1.5%
Carbon				\$1 ⁵				N/A	
Total	\$47	\$40	\$22	\$28⁶	\$40	\$92	\$33	\$65.50	100.0%

"Ironically, it would appear that the original consent granted, for 54 turbines, is less than what the court has given," Sartor said. 12 February's judgement allowed 69 turbines. "That may be a lesson to people that appeal against wind fans."

Public benefit outweighs private concerns:

Justice Preston ruled that the public benefit of a major renewable energy source outweighed residents' private concerns. The company planning to build the project, RES Southern Cross, expected it would be finished within two years. Its commercial director, Colin Liebmann,

Ministerial Council on Energy January 2007 <http://www.mce.gov.au/assets/documents/mceinternet/SmartMetersInfoPaper20070123163300%2Epdf> Benefit Contributions from Universal Smart Metering Case Studies.

said it could produce enough energy to power 40,000 homes.

Mainland NEM ancillary services cost \$112,000 for week, with Tas adding another \$68,000, AER analysis shows

Total cost of the ancillary services for the mainland National Electricity Market (NEM) regions was \$112,000 for the week ending 27 January, the Australian Energy Regulator (AER) showed in its market analysis for the week.

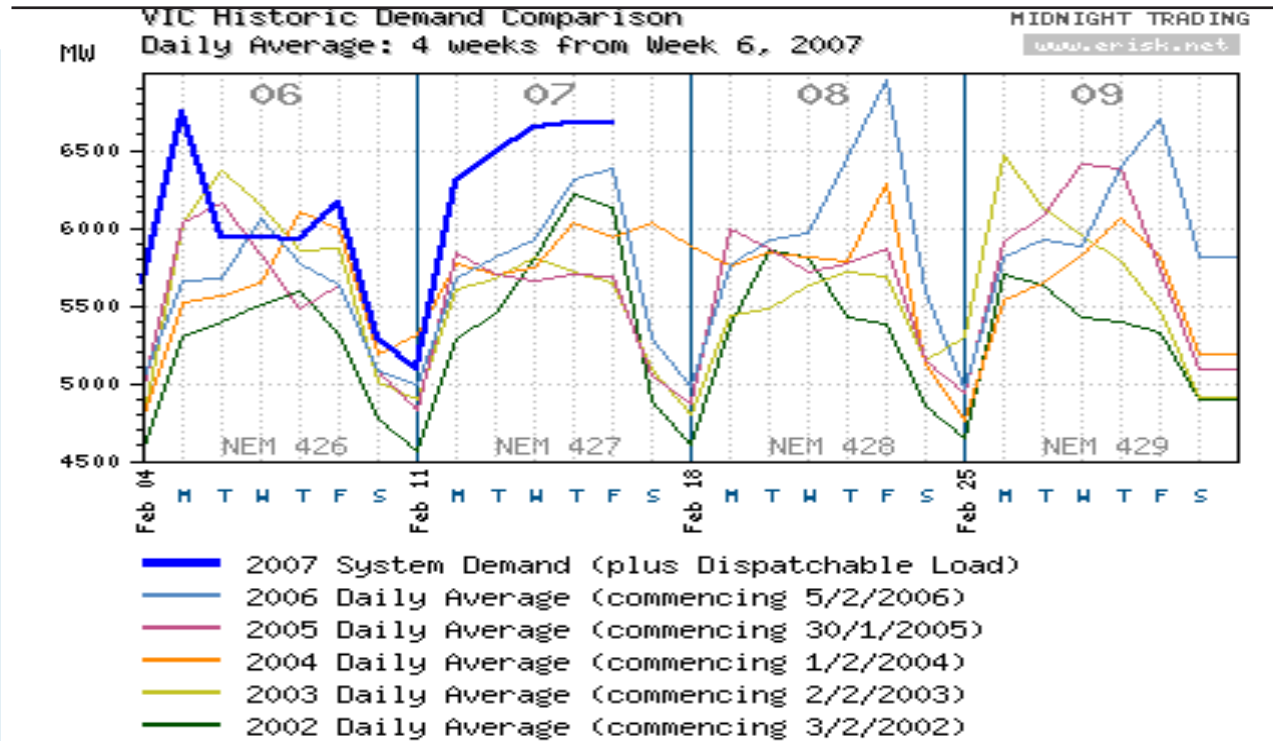
0.1 per cent of energy market: The analysis said this was 0.1 per cent of the energy market.

Tas cost 1 per cent of total turnover: The total cost of ancillary services in Tasmania for the week was \$68,000 or 1 per cent of the total turnover in the energy market in Tasmania.

\$4222/MW price in one dispatch interval: A price of \$4222/MW occurred for raise six-second services for one dispatch interval on Wednesday at 1705EST in Tasmania.

Change of direction in Basslink flow: This coincided with a change in the direction of flow across Basslink and an increase of 50MW in the requirement for this service in Tasmania.

Reference: Market analysis for week Sunday 21 January to Saturday, 27 January 2007 Australian Energy Regulator (AER). 9 February 2007. Address: Level 11, The Tower, 360 Elizabeth Street, Melbourne Central. Melbourne. Vic. 3000. GPO Box 520, Melbourne. Vic. 3001. Phone: (03) 9290 1444. Fax: (03) 9290 1457. <http://www.aer.gov.au>



Qld spot price between \$1739.42/MWh and \$7938.97/MWh in six trading intervals for week to 27 Jan

The spot price in Queensland was greater than three times the weekly average price of \$149/MWh twice on Tuesday, 23 January and four times on Wednesday, 24 January, figures released by the Australian Energy Regulator (AER) show.

Mid-afternoon trading intervals: In its review of the week from Sunday, 21 January to Saturday, 27 January, the AER said the two 30-minute trading intervals on Tuesday were at 1500EST and 1530EST.

Demand below forecast at time: It said conditions at the time saw demand less than that forecast four and 12 hours ahead, with prices generally aligned with those in New South Wales and Victoria.

Constraints invoked: From 1430EST, constraints were invoked to manage a network outage near Tarong. These constraints drove

counter-price flows across the Queensland to NSW interconnector (QNI).

Negative settlement residues accumulate: NEMMCO introduced additional constraints to restrict the accumulation of negative settlement residues from 1500EST.

Morning and afternoon intervals on Wed: The report said the four times on the Wednesday that prices were more than three times the average price of \$149/MWh occurred in the 30-minute trading intervals at 1030EST, 1100EST, 1230EST and 1300EST.

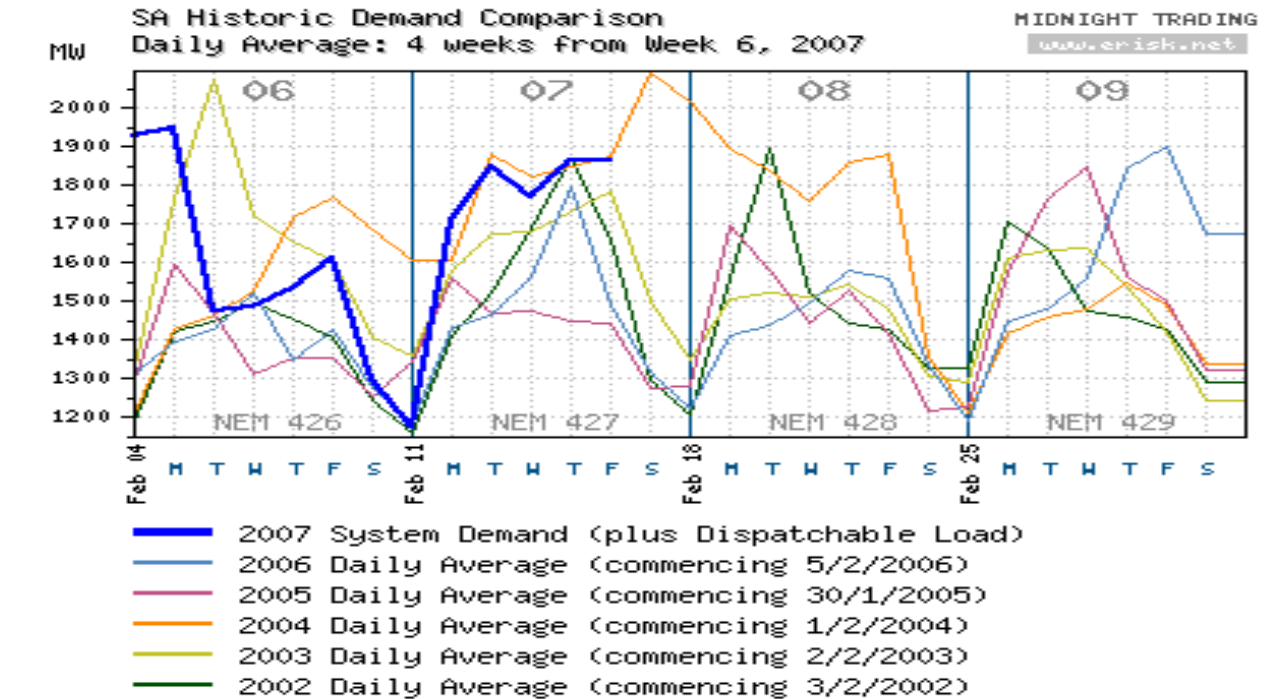
Record demand: Conditions at the time saw demand close to forecast, reaching a record of almost 8340MW by 1500EST.

More negative settlement residues: NEMMCO introduced constraints throughout the period to restrict the accumulation of negative settlements across the QNI.

Details of price, demand and capacity: The following table shows details of price, demand and available capacity in the six trading intervals on Tuesday, 23 January and Wednesday, 24 January when prices were more than three times the average:

Trading Interval	Price (MWh)	Demand (MW)	Available capacity(MWh)
1500EST, Tuesday, 23 January	\$5920.35	8046	9798
1530EST, Tuesday, 23 January	\$7938.97	7919	9952
1030EST, Wednesday, 24 January	\$1739.42	7886	10,118
1100EST, Wednesday, 24 January	\$6260.76	7874	10,180
1230EST, Wednesday, 24 January	\$2029.27	8173	10,115
1300EST, Wednesday, 24 January	\$4684.66	8176	10,096

Reference: Market analysis for week Sunday 21 January to Saturday, 27 January 2007 Australian Energy Regulator (AER). 9 February 2007. Address:



Level 11, The Tower, 360 Elizabeth Street, Melbourne Central. Melbourne. Vic. 3000. GPO Box 520, Melbourne. Vic. 3001. Phone: (03) 9290 1444. Fax: (03) 9290 1457. <http://www.aer.gov.au>

Leighton reported to be looking at a joint bid for Alinta with Macquarie Bank

Alinta's \$7 billion sale process is gathering pace, with a number of prospective buyers circling the energy company ahead of next month's deadline for

final bids, *The Mercury* (10/2/2007, p.28) reported.

Leighton looking at it: Sources close to the negotiations say Leighton is looking at the possibility of making a joint bid with Macquarie Bank. A bid for Alinta would fit in with Leighton chief Wal King's objective of diversifying the company away from its core construction focus.

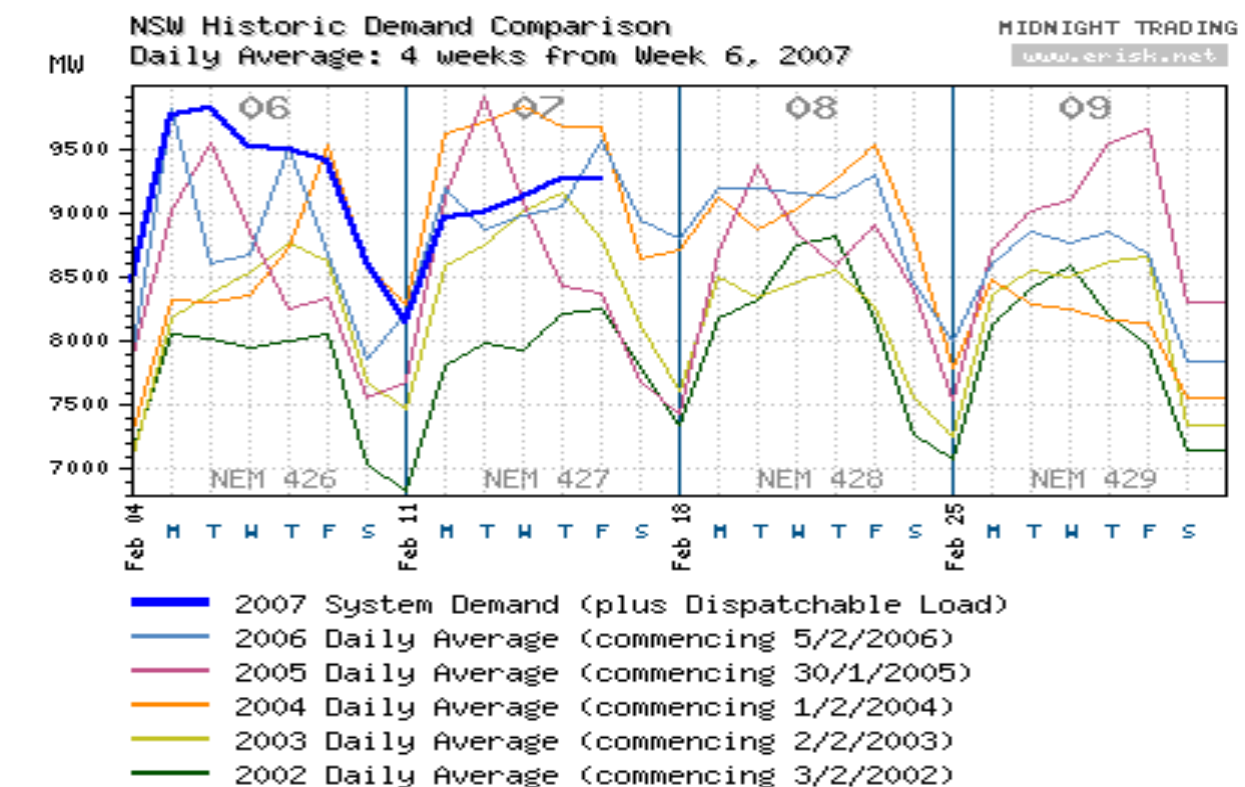
No comment: "Areas of potential interest include transport, resources, industrial, defence and utilities," King said at the company AGM in November. But a spokesperson for Leighton refused to comment on market speculation.

Hedge fund role: The entry of US hedge fund OZ Management as Alinta's biggest shareholder, with a 5.3 per cent stake in the company, has also increased the pressure on the proposed management buy-out headed by former chair John Poynton and former chief executive Bob Browning. Hedge funds take substantial stakes in companies involved in takeover talks because they believe the final price will be significantly higher.

GPT Group's 3-year Green Power contract to Origin

The GPT Group, including the GPT Wholesale Office Fund (GWOF), had procured 20 gigawatt hours per annum of Accredited Green Power for 92pc of its office portfolio weighted by floor area. The GPT Group had committed to purchasing 25pc of its energy demand from renewable energy projects such as wind and biomass in NSW, Vic and SA. This 25pc equated to abating approximately 23,000 tonnes of CO2 per annum.

Origin Energy awarded 3 year contract: Origin Energy, whose green energy products were ranked as the top performers in the Australian renewable market by the Green Electricity Watch Survey 2006 [endorsed by the Total Environment Centre (TEC), The Australian Conservation Foundation (ACF) and World Wildlife Fund (WWF)], was awarded a 3-year contract which commenced from 1st



January, 2007. The office assets purchasing 25pc Green Power included:

- Australia Square, Sydney;
- MLC Centre, Sydney;
- Citigroup Centre, Sydney;
- HSBC Centre, Sydney;
- Darling Park 1, 2 & 3, Sydney;
- 179 Elizabeth St, Sydney;
- Quad 1, 2 & 3, Homebush, Sydney;
- 800 Bourke Street, Melbourne;
- Melbourne Central Tower, Melbourne;
- 530 Collins Street, Melbourne;
- Riverside Centre, Brisbane;
- 10 & 12 Mort Street, Canberra.

Reference: For further information, please contact:
Tony Cope, Head of Office, the GPT Group, ph: (02) 8239 3535; Donna Byrne, Head of Investor Relations & Corporate Affairs, GPT Group, ph: (02) 8239 3515

or Wayne Gregory, National Manager Public Affairs, Origin Energy, ph: (03) 9652 5886.

EWN Publishing

6 February: explosion closes Zinifex blast furnace at South Australia Port Pirie smelter

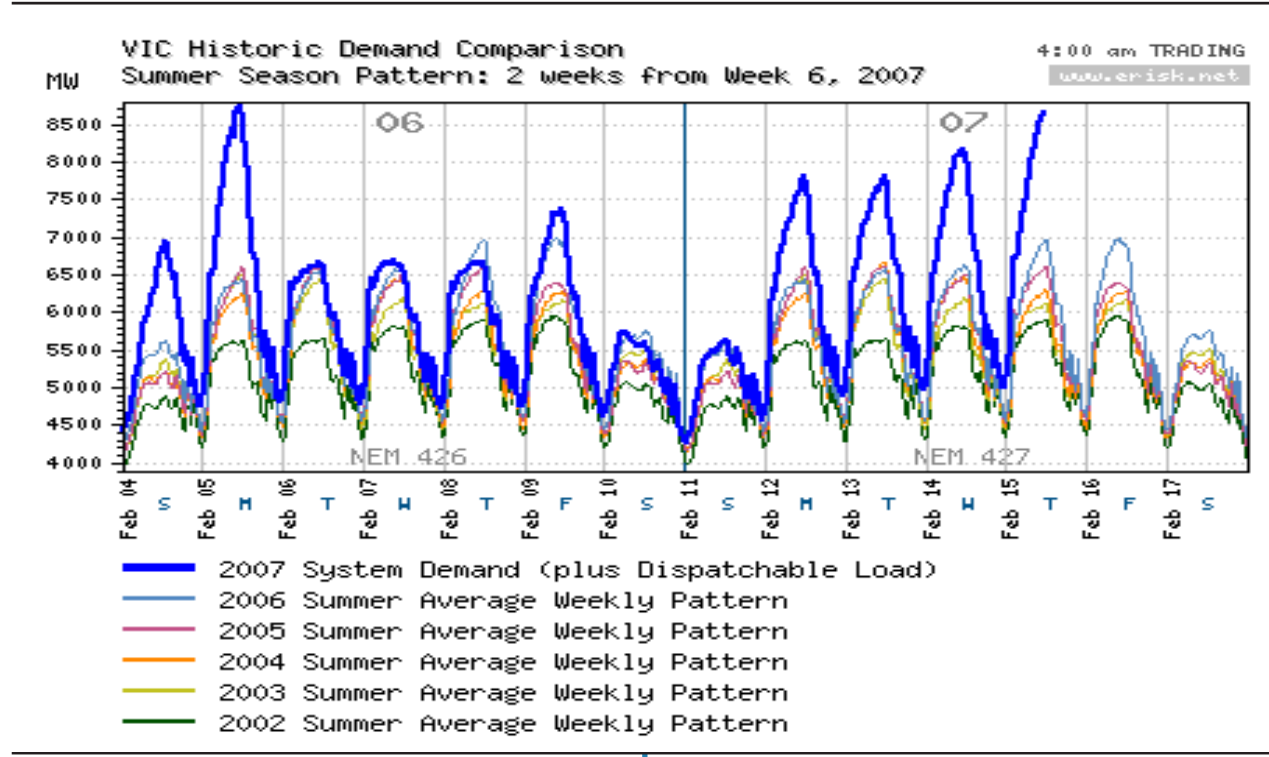
Zinifex, trying to regain momentum after an ordinary first-half of production, had closed the blast furnace at its Port Pirie smelter after an explosion at the weekend, reported *The Courier Mail* (07/02/2007, p.49).

Blast furnace to remain shut for repairs:

The company attributed the steam explosion to a damaged slag granulation system at the smelter, caused when molten slag came into contact with water. It ordered a voluntary shutdown of the blast furnace in order to carry out repairs, which are expected to take seven to 10 days. One worker was injured in the explosion.

Shutdown second in two months: According to *The Canberra Times* (06/02/2007, p.15), the Port Pirie shutdown was the second in less than two months for Zinifex and followed an unplanned shutdown of the concentrator at its Century zinc mine in Queensland in December. The Century mine shutdown resulted in four lost production days and an expected \$20 million loss in revenue for 2006/07.

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Strong start in 2007 for transfers of small NSW electricity customers, with total up 9.6pc on December

NSW transfers of small electricity customers started strongly in 2007 with the January total of 28,850 being up 2516 (9.6 per cent) on the 26,334 in December, the latest National Electricity Market Management Company (NEMMCO) transfer figures show.

January normally quiet: January is normally a quiet month for transfers - its total in 2006 was 21,882, making it the lowest for 2006.

Up 6968 on January 2006: The January 2007 transfers of 28,850 were up 6968 (31.8) per cent on the 21,882 in January 2006.

Total small customer transfers at 880,127: The January total took total transfers of small NSW electricity customers to market contracts to 880,127.

Transfers of large customers up: Transfers of large electricity customers rose 498 (287.9 per cent) to 671 in January compared to 173

in December. However, they were down 40 (5.6 per cent) on the 711 transfers in January 2006.

Total for large customers now 22,831: The transfers in January 2007 took the total of large customer transfers to 22,831.

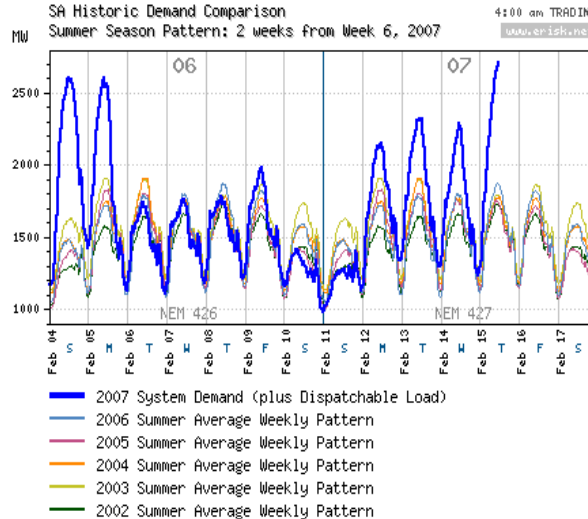
Combined transfers pass 900,000: The combined total of small and large customer transfers at the end of January was 902,958, up 29,521 (3.4 per cent) on the 873,437 at the end of November.

How customers are classified: NEMMCO said the transfers represented the total for both small and large national meter identifier (NMI) figures. A small NMI was classified as having less than 160MWh of consumption a year while a large NMI was a customer having more than 160MWh consumption a year.

Breakdown of transfers: The following table shows transfers of large and small customers for January 2007 and all 12 months in 2006 for comparison purposes.

Time	Small Customers	Progressive	Large customers	Progressive	Total all customers
31 December 2005	20,352	519,571	136	19,399	538,970
31 January 2006	21,882	541,453	711	20,110	561,563
28 February 2006	23,684	565,137	86	20,196	585,333
31 March 2006	27,031	592,168	63	20,259	612,427
30 April 2006	22,262	614,430	77	20,336	634,766
31 May 2006:	32,564	646,994	75	20,411	667,405
30 June 2006:	28,377	675,371	67	20,478	695,849
July 2006	28,267	703,638	868	21,346	724,984
August 2006	29,742	733,380	197	21,543	754,923
September 2006	28,460	761,840	131	21,674	783,514
October 2006	31,682	793,522	187	21,861	815,383
November 2006	31,421	824,943	126	21,987	846,930
December 2006	26,334	851,277	173	22,160	873,437
January 2007	28,850	880,127	671	22,831	902,958

Reference: National Electricity Market Management Company (NEMMCO) MSATS (market settlement and transfer solutions) retail transfer statistical data for customers in NSW for January 2007. 7 February 2007. Address: Level 16, 461 Bourke Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. <http://www.nemmco.com.au>



National Emissions Trading Scheme spells doom for power stations, Loy Yang Power says; stations to eventually go broke

Loy Yang Power, Victoria's largest electricity generator, has warned that power stations could eventually go broke unless compensated in any National Emissions Trading Scheme, according to Philip Hopkins in *The Age* (6/2/2007, p.3).

Loy Yang submission to NETT: Loy Yang, which produces about 30 per cent of Victoria's electricity, set out its views in a submission to the National Emissions Trading Taskforce, which has been set up by the states to design a national GHG trading scheme. The taskforce is separate to the Prime Minister's task group

on emissions trading, but the state group says it will work with the federal group.

Coal-fired power stations face closure: Loy Yang said the potential impact and rises in operating costs for fossil-fuel generators in a trading scheme were "significant". "Without adequate compensation, many existing coal-fired power stations, both black and brown, would face closure within the next 20-25 years," the submission said.

Stations designed in more innocent days: Most power stations were designed and built when climate change was not even contemplated.

Loy Yang wants 15-year cap period: Loy Yang favoured a cap period of at least 15 years to provide greater investor certainty. But it warned that a 20-year period for permits to compensate for profit losses might only compensate a power station for loss over 40-50 per cent of its life. This was not appropriate for Loy Yang power station, which was expected to operate for at least another 40 years, it said.

Include transport and agriculture: Permits should be allocated to at least 75 per cent of an asset's remaining life. Loy Yang said a time frame should also be set for transport and agriculture to be included in an emissions scheme.

Hydro Tasmania says energy prices of \$43-\$44 unlikely to provide sufficient incentive for deployment of renewables

In its submission to National Emissions Trading Taskforce (NETT) Discussion Paper – 'Possible Design for a National Greenhouse Gas Emissions Trading Scheme', Hydro Tasmania recommended that the Taskforce examine the Stern Review and the implications of its recommendations for the proposed National Emissions Trading Scheme (NETS) and abatement timeframe.

Cost of renewable energy declining: The proposed model concluded that an energy price of \$43 to \$44 was sufficient to deliver substantial increases in renewable energy generation post-2020 – despite no other new measures assumed. It was reasonable to assume that the cost of deploying proven renewable energy technologies was declining as a result of learning, increased scale and technological advance. However, without some other additional support measure, it was unlikely that energy prices of \$43-\$44 would alone be sufficient to provide sufficient incentive for the large scale deployment of renewable energy technologies.

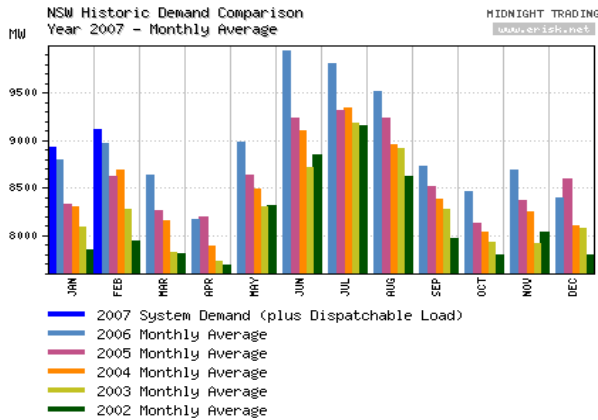
Increased scale, downward pressure on deployment costs for green technologies will affect tech within Australia

Hydro Tasmania strongly urged the Taskforce to re-examine the model's assumptions/conclusion that significant new renewables would be developed as a result of the scheme. Significant demand growth in renewable energy had already occurred within the region and globally. This was likely to continue to occur as countries like China and India legislated ambitious renewable energy targets. While this would result in increased scale and downward pressure on deployment costs for technologies such as wind, it could also create a competitive market for technologies, components and services necessary to deploy. This could limit the extent to which costs ultimately decrease for these technologies within Australia, given that a tight demand supply balance would remain.

Taskforce should examine impact of CERs: The model did not include the impact of using Certified Emissions Reductions (CERs) as offsets. Given the Discussion Paper proposal that CERs be used as eligible offsets under the scheme, Hydro Tasmania said it strongly recommended that the Taskforce examined the impact that these would have on the modelling results.

Contact: Pat Lennon, General Manager Business Development, GPO Box 355, Hobart Tasmania 7001, ph: (03) 6237 3400, fax: (03) 6230 5823, website: <http://www.hydro.com.au> or Corinna Woolford, ph: (03) 6230 5636, email: corinna.woolford@hydro.com.au

Reference: National Emissions Trading Taskforce Discussion Paper – Possible Design for a National Greenhouse Gas Emissions Trading Scheme; Hydro Tasmania Submission



SA generation dispatch exceeds 3000MW for first time during Vic power crisis as Heywood reaches max export

Maximum exports from South Australia to Victoria across the Heywood interconnector of up to 300MW during Victoria’s power crisis on Tuesday, 16 January

saw generation dispatch in South Australia exceed 3000MW for the first time, the Australian Energy Regulator (AER) showed in its review of the week from Sunday, 14 January to Saturday, 20 January 2007.

10 intervals of high spot prices: The spot price in South Australia was greater than three times the weekly average price of \$238/MWh in 10 trading intervals between 1300EST and 1830EST. The two intervals when the spot price was not three times the weekly average price were 1630EST and 1800EST. The following table shows the spot price, demand and available capacity in the 10 trading intervals:

Trading interval	Price (MWh)	Demand(MW)	Available capacity(MW)
1300EST	\$1220.73	2617	3143
1330EST	\$2112.72	2680	3107
1400EST	\$1983.63	2726	3071
1430EST	\$4366.99	2733	3060
1500EST	\$6048.52	2750	3089
1530EST	\$4450.37	2711	3118
1600EST	\$7813.10	2719	3141
1700EST	\$3826.80	2794	3009
1730EST	\$2412.17	2768	3028
1830EST	\$3119.65	2553	3056

Reference: Market analysis for week Sunday 14 January to Saturday, 20 January 2007 Australian Energy Regulator (AER), 2 February 2007. Add: Level 11, The Tower, 360 Elizabeth Street, Melbourne Central, Melbourne, Vic 3000. GPO Box 520, Melbourne. Vic. 3001. Phone: (03) 9290 1444. Fax: (03) 9290 1457. <http://www.aer.gov.au>

\$1292.26-\$10,000.00/MWh in Vic crisis on “Black Tuesday”

The spot price in Victoria during the power crisis on “Black Tuesday” on 16 January ranged from \$1292.26/MWh to \$10,000/MWh in 12 successive 30-minute trading intervals from 1300EST 1830EST, the Australian Energy Regulator (AER) showed in its review of the week from Sunday, 14 January to Saturday, 20 January 2007.

Three successive intervals at VoLL: The \$10,000/MWh price, the maximum Value of Lost Load (VoLL), applied in three successive intervals at 1700EST, 1730EST and 1800EST.

How spot prices moved in 12 intervals: The AER produced a table showing the spot price in Victoria when it was more than three times the weekly average price of \$321/MWh. The following table shows the spot price, demand and available capacity in each of the 12 trading intervals.

Trading interval	Price(MW/h)	Demand (MW)	Available capacity(MW)
1300EST	\$1292.96	8439	7363
1330EST	\$2250.22	8683	7380
1400EST	\$2205.56	8810	7391
1430EST	\$8598.99	8922	7358
1500EST	\$9585.48	9012	7343
1530EST	\$1653.89	6913	7332
1600EST	\$4173.27	6685	7178
1630EST	\$3502.92	6997	7181
1700EST	\$10,000.00	7511	7344
1730EST	\$10,000.00	7384	7309
1800EST	\$10,000.00	7482	7287
1830EST	\$6500.00	7666	7398

Reference: Market analysis for week Sunday 14 January to Saturday, 20 January 2007 Australian Energy Regulator (AER). 2 February 2007. Address: Level 11, The Tower, 360 Elizabeth Street, Melbourne Central. Melbourne. Vic. 3000. GPO Box 520, Melbourne. Vic. 3001. Phone: (03) 9290 1444. Fax: (03) 9290 1457. <http://www.aer.gov.au>

Mossad suspected of assassinating prizewinning Iranian atomic scientist

The Israeli spy agency Mossad is suspected of assassinating a prizewinning Iranian atomic scientist as Tehran snubs the West and comes close to realising its nuclear ambitions, reported *The Australian* (5/2/2007, p.11).

US broadcaster says Mossad behind death: Radio Farda, which is funded by the US State Department and broadcasts to Iran, said the scientist, Ardehire Hassanpour, had died in "mysterious circumstances". An intelligence source suggested that Hassanpour, 44, a nuclear physicist, had been assassinated by Mossad.

Iranian media cite gas poisoning: According to Radio Farda, Iranian reports of Hassanpour's death emerged on 21 January after a delay of six days, giving the cause as "gas poisoning". The Iranian reports did not say how or where Hassanpour was poisoned but his death was said to have been announced at a conference on nuclear safety.

Top science qualifications: Hassanpour won Iran's leading military research prize in 2004 and was awarded top prize at the Kharazmi international science festival in Iran last year.

Centrifuges announcement expected: President Mahmoud Ahmadinejad is expected to announce next Sunday - the 28th anniversary of the Islamic revolution - that 3000 centrifuges have been installed at Natanz, enabling Iran to move closer to industrial-scale uranium enrichment.

Qld records 224 transfers of large electricity customers in January, highest total since July 2006: NEMMCO figures

Queensland recorded more than 200 transfers of large electricity customers on to market contracts in January 2007 for the first time since July 2006, the latest transfer statistics issued by the National Electricity Market Management Company (NEMMCO) show.

74 more than in December: The 224 transfers in January 2007 was up 74 (49.3 per cent) on the 150 in December 2007 and was the highest total since the 261 in July 2006. The January transfers were up 52 (30.2 per cent) on the 172 transfers in January 2005.

Total transfers at 6175: The 224 transfers in January took total transfers to 6175, compared to 5951 at the end of December and 4740 at the end of January 2005.

Must use more than 160MWh a year: In Queensland, large customers (those using 160 megawatt hours a year or more) can choose their retailers. Full retail contestability (FRC) does not yet apply in Queensland for domestic customers using less than 160MWh a year.

Monthly transfer figures: The following table shows the transfers of large electricity customers in Queensland for January 2007, with the monthly figures for 2006 given for comparison purposes.

Month	Monthly transfers	Total transfers
January 2006	172	4740
February 2006	42	4782
March 2006	67	4849
April 2006	52	4901
May 2005	47	4948
June 2005	33	4981
July 2006	261	5242
August 2006	116	5358
September 2006	87	5445
October 2006	174	5619
November 2006	182	5801
December 2006	150	5951
January 2007	224	6175

Reference: National Electricity Market Management Company (NEMMCO) retail transfer statistical data for large Queensland customers for January 2007. September 2006 quarter. 6 October 2006. Address: Level 16, 461 Bourke Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. <http://www.nemmco.com.au>

Victorian transfers of small electricity customers in January 2007 higher than any month in 2006: NEMMCO

Victorian transfers of small electricity customers in January 2007 at 53,401 were higher than in any month in 2006, according to the latest National Electricity Market Management Company (NEMMCO) transfer figures.

Up 2779 on December: The January 2007 figures were up 2779 (5.5 per cent) on the 50,622 in December which had the third highest total in 2006 behind the 51,046 in October and the 50,892 in May.

Huge jump on January 2006: The January 2007 transfers to market contracts were up 15,511 (40.9 per cent) on the 37,890 in January 2006, which was the lowest monthly total in 2006.

Small customer transfers now 1,771,096: The January 2007 transfers took the small electricity customer transfers to 1,771,096 compared to 1,717,695 at the end of December and 1,200,447 at the end of January 2006 (see Note at end of table).

Big fall in large customer transfers: The figures show that the 336 transfers of large electricity customers in January 2007 were down 1095 (76.5 per cent) on the 1431 in December 2006. They were up 129 (59.4 per cent) to 336 in January 2007 compared to 217.