

AGL Powerdirect: \$1300 a customer, p16
 18 Feb: Adelaide 38C blackouts, p8
 Uranquinty to compete with Snowy, p2

Scrooge McDuck No 215, 1957



Rewrite of billions in electricity deals, as new NEM region Code changes break existing market derivatives contracts

1

Eraring Energy has told regulators the National Electricity Markets (NEM) boundary changes proposed by Macquarie Generation and Snowy Hydro, must lead to a rewrite of billions in electricity market contracts. Stephan Boras, General Manager Trading Eraring Energy, in a letter to Dr John

Tamblyn, Chair, Australian Energy Market Commission (AEMC) said ISDA Master Agreements included provisions for "market disruption events", and legal advice received by Eraring Energy had confirmed:

- each of the boundary change proposals considered by the AEMC for the Snowy Region were a "market disruption event".
- a market disruption event occurs, it was dealt with by way of "disruption fallbacks" as specified in the ISDA Master Agreements.

The boundary change proposal by Macquarie Generation would have greater impact than that proposed by Snowy Hydro, due to the inclusion of loads in southern NSW and northern Victoria. (*see inside, NSW Minister moots Macquarie Generation Rule change proposal: lays groundwork, to say, 'no', p7*).

Eraring wants January 2009 D-Day: Eraring Energy suggested an implementation date of 1 January 2009; that was 20 months from the date of the final determination to prepare to re-write contracts.

Ergon agrees: Angela Moody, Regulatory Manager Ergon Energy Retail, wanted three years (after the final determination) is an appropriate lead time for market participants to address any commercial or economic

contents

- 3 Uranquinty versus Snowy
- 4 NSW to rely heavily on imports from Qld and Snowy/Vic in high demand times by 2008/09 summer, TransGrid warns
- 4 Southern Generators tell Snowy: talk drought with NEMMCO don't set-up plays for \$10,000/MWh earnings, under NEMMCO direction
- 6 Record low levels in Great Lake force Hydro Tasmania to cut gen, import from Basslink
- 6 Snowy Hydro fights for water with Snowy River advocates
- 7 NSW Minister moots Macquarie Generation Rule change proposal: lays groundwork, to say, "no"
- 8 18 February: peakers gasp for gas-pack in Adelaide 38C blackouts
- 10 Saturday, 17 February: Vic records negative price of \$83.53/MWh in early afternoon trading intervals

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

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Top price for NEM week 11-17 Feb 2007: Argaston at \$298.09/MWh

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2

TAS			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Liap/Way/Cat	\$800,054	14,991	\$53.37
Bell Bay Power	\$915,522	17,018	\$53.80
John Butters	\$561,003	8,514	\$65.89
Tungatinah	\$444,094	7,800	\$56.93
Poatina	\$914,505	12,443	\$73.50
Tarraleah	\$612,934	11,737	\$52.22
Reece	\$1,004,439	14,287	\$70.30
Cethana	\$133,869	1,684	\$79.49
Tribute	\$283,548	3,441	\$82.41
Lemonthyme/Wilmot	\$194,029	2,204	\$88.03
Trevallyn	\$66,744	806	\$82.76
Mackintosh	\$435,289	6,600	\$65.95
Bastyan	\$408,737	6,071	\$67.33
Woolnorth Wind	-	-	-
Gordon	\$2,648,507	46,958	\$56.40
Vic->Tas	\$1,430,256	37,149	\$38.50
Devils Gate	\$123,983	1,011	\$122.60
Fisher	\$72,922	617	\$118.14
Meadowbank	105702.5002	2185.765	\$48.36
Lake Echo	58251.2647	1378.125	\$42.27
Repulse	-	-	-
Paloona	-	-	-
Cluny	-	-	-

considerations associated with a change to a region boundary.

Reference: Eraring Energy, Timing of Proposed Boundary Changes in the Snowy Region, 10 October 2006, P. 1-2. <http://www.aemc.gov.au/pdfs/reviews/Ergon, Angela Moody, Regulatory Manager, Telephone: 07 3023 2478, Facsimile: 07 3229 0982, Email: angela.moody@ergon.com.au>

SA			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
North'n Power	\$5,046,272	89,416	\$56.44
Ladbroke	\$465,260	4,795	\$97.02
Osborne	\$1,620,535	26,611	\$60.90
Pelican Pt	\$4,111,648	65,006	\$63.25
Torrens Is. B	\$3,902,319	48,794	\$79.98
Vic->SA	\$1,965,890	32,800	\$59.94
MLink->SA	\$74,762	1,249	\$59.87
Torrens Is. A	\$1,123,236	11,046	\$101.69
Mintaro	\$199,536	1,508	\$132.29
Dry Creek	\$75,883	495	\$153.20
Playford	\$1,391,317	21,633	\$64.31
Snuggery	\$769	13	\$57.75
Pt Lincoln	-	-	-
Quarantine	\$369,652	2,907	\$127.14
Angaston Power	\$36,362	122	\$298.09
Hallett Power	\$799,617	6,565	-
Lonsdale	-	-	-
Terminal Storage	-	-	-
Lake Bonney Wind	-	-	-

VIC			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Loy Yang A	\$17,767,949	351,409	\$50.56
Loy Yang B	\$9,013,232	175,910	\$51.24
Hazelwood	\$13,190,654	249,957	\$52.77
Yallourn	\$11,467,697	230,757	\$49.70
Anglesea	\$1,286,390	25,133	\$51.18
Energy Brix	\$1,210,219	23,564	\$51.36
Newport	\$872,685	9,384	\$93.00
MLink->Vic	\$96,891	1,471	\$65.86
SA->Vic	\$49,029	878	\$55.84
Snowy->Vic	\$3,844,129	43,460	\$88.45
Tas->Vic	\$2,112,683	16,493	\$128.10
Jeeralang	\$145,933	1,747	\$83.53
West Kiewa	\$116,383	760	\$153.15
Bairnsdale	\$474,054	5,614	\$84.45
Dartmouth	-	-	-
Eildon	\$98,473	826	\$119.25
Hume Vic	-	-	-
McKay Power	\$210,970	899	\$234.74
Clover	-	-	-
Valley Power	\$1,732,923	22,372	\$77.46
Rubicon	-	-	-
Laverton North	1936176.136	25211.54	-
Somerton Power	526201.2603	4427.785	-
Sunshine Energy	-	-	-
Longford	-	-	-

NSW			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Bayswater	\$17,958,004	340,359	\$52.76
Liddell	\$9,907,802	199,385	\$49.69
Mt Piper	\$5,412,948	104,228	\$51.93
Wallerawang	\$5,189,920	89,826	\$57.78
Vales Point	\$7,531,287	167,061	\$45.08
Munmorah	\$1,604,615	33,862	\$47.39
Eraring	\$18,523,082	353,228	\$52.44
Redbank	\$880,858	20,006	\$44.03
Smithfield	\$1,088,505	19,932	\$54.61
Snowy->NSW	\$4,560,907	47,772	\$95.47
Shoalhaven	\$474,619	12,342	\$38.46
Hunter Valley	-	-	-
Hume Hydro	-	-	-
Blowering	\$34,067	728	\$46.81
Northern Gas	-	-	-
Burrinjuck	-	-	-
Brown Mountain	-	-	-
Keepit	-	-	-
Broken Hill	-	-	-
Ergon Energy	-	-	-
DL Q->N	\$737,996	16,558	\$44.57
QLD->NSW	\$7,072,258	139,379	\$50.74
Pindari Hydro	-	-	-
West Nowra	-	-	-
Country En (NSW)	-	-	-

QLD			
Generator	Income (\$)	Output (MWh)	Av Price (/MWh)
Tarong	\$8,833,578	262,406	\$33.66
Millmerran	\$4,589,183	137,844	\$33.29
Swanbank	\$1,397,410	36,549	\$38.23
Stanwell	\$6,726,572	193,175	\$34.82
Callide B	\$3,460,356	100,613	\$34.39
Callide Power	\$4,118,635	121,176	\$33.99
Townsville	\$1,126,744	30,180	\$37.33
Gladstone	\$6,222,138	172,685	\$36.03
Collinsville	\$398,885	10,792	\$36.96
Swanbank C. D. E	\$1,783,645	50,201	\$35.53
Barcaldine	\$125,035	1,863	\$67.10
Callide A	-	-	-
Kareeya	\$482,302	14,684	\$32.85
Barron Gorge	\$322,274	9,834	\$32.77
Mt Stuart	\$42,511	1,554	\$27.35
Wivenhoe	-	-	-
Braemar Power	\$1,776,255	39,872	\$44.55
Mackay	-	-	-
Roma	\$48,318	418	\$115.50
Oakey	\$1,344	21	\$63.23
DL N->Q	-	-	-
NSW->QLD	-	-	-
Rocky Point	-	-	-
Tableland	-	-	-
Stapylton	-	-	-

Uranquinty versus Snowy

Peak generation from the planned B&B Wambo Uranquinty generation would displace energy transfers – Sydney West from Snowy and or southern imports would be determined by the market and were not related to system capacity. According to Chris Knightly of HMA Consulting, in a paper commissioned by Wambo Power, the export of 600MW from the proposed Uranquinty Power Station, Uranquinty would add capacity to NSW at times of peak demand. He cited ROAM Consulting, and said:

- Uranquinty bidding at \$50 had a capacity factor of approximately 5 per cent;
- changing the transfer limit north from Snowy from 3000MW to 3500MW had little effect on Uranquinty output, thus
- Uranquinty availability was not significantly affected by the Snowy NSW transfer limit.

Improves NSW reliability: Knightly argued Uranquinty would add to the reliability of power supply in NSW; and “would act as a valuable back up if Snowy runs short of water in a drought year”.

3

Transmission constraint rare: "Our studies indicate there is a very small probability of a network contingency in the NSW and Snowy region around Wagga causing a requirement for reduction in generation at Uranquinty.

Reference: Wambo Power p: +61 (0)7 3236 4244 fax: +61 (0)7 3236 4266. Email: hmac@hmac.com.au

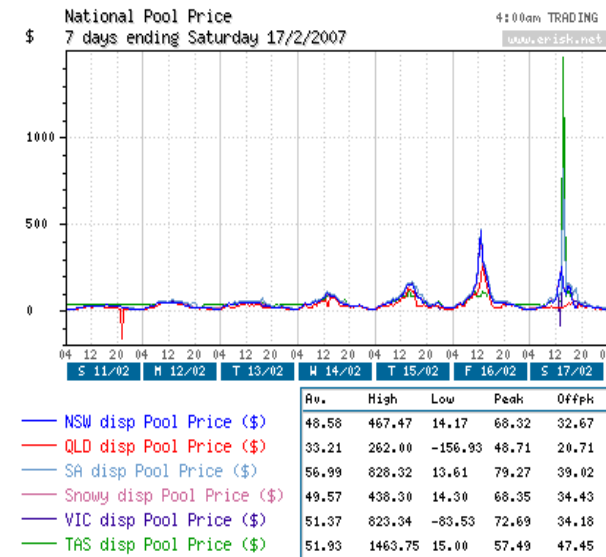
the week in detail

• **NSW:** Average price \$48.58/MWh, up 20 per cent on the spike-affected \$40.34/MWh the previous week, up 112 per cent on the \$22.87/MWh of the comparable week last year; maximum price \$467.47/MWh for the 30-minute trading interval ended 1330EST on Friday. Average demand 8934MW, down 3.2 per cent on the previous week, down 0.4 per cent on a year ago; maximum demand 11,118MW in the 1300EST interval on Friday, down 7.5 per cent on the 12,019MW the previous week.

• **Victoria:** Average price \$51.37/MWh, up 27 per cent on the spike-affected \$40.30/MWh the previous week, up 114 per cent on the \$23.97/MWh of the comparable week last year; maximum price \$823.34/MWh for the 30-minute trading interval ended 1500EST Saturday. Average demand 6440MW, up 8.3 per cent on the previous week, up 11.6 per cent on a year ago; maximum demand 8812MW in the 1530EST Friday interval, up 0.8 per cent on the 8738MW the previous week.

• **South Australia:** Average price \$56.99/MWh, up 26 per cent on the spike-affected \$45.37/MWh the previous week, up 103 per cent on the \$28.06/MWh of the comparable week last year; maximum price \$828.32/MWh for the 30-minute trading interval ended 1500EST Saturday. Average demand 1857MW, up 15.6 per cent on the previous week, up 26.8 per cent on a year ago; maximum demand 2854MW for the 1630EST Friday interval, up 9.5 per cent on the 2607MW the previous week.

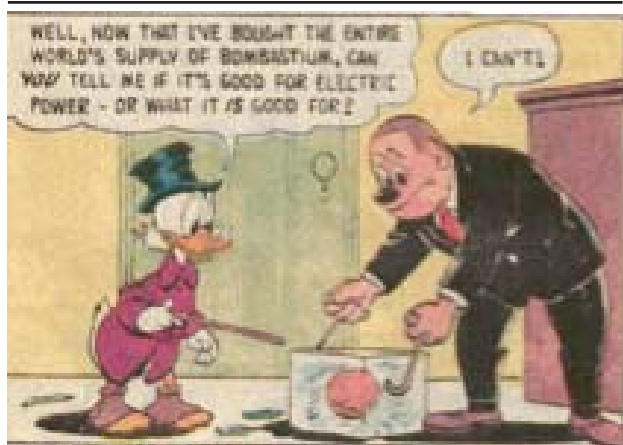
• **Queensland:** Average price \$33.21/MWh, down 10 per cent on the spike-affected \$37.02/MWh the previous week, up 44 per cent on the \$23.02/MWh of the comparable week last year; maximum price \$262.00/MWh for the trading interval ended 1400EST Friday. Average demand 6103MW, down 1.3 per cent on the



previous week, down 7.4 per cent on a year ago; maximum demand 7650MW in the 1430EST Monday interval, up 1MW on the 7649MW the previous week.

• **Tasmania:** Average price \$51.93/MWh, up 3 per cent on the spike-affected \$50.44/MWh the previous week, up 65 per cent on the \$31.41/MWh of the comparable week last year; maximum price \$1463.75/MWh for the trading interval ended 1500EST on Saturday. Average demand 1084MW, up 2.3 per cent on the previous week, up 1.7 per cent on a year ago; maximum demand 1290MW for the 1600EST Wednesday interval, up 4.7 per cent on the 1232MW the previous week.

Meanwhile, in Brutopia



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<http://www.aemc.gov.au/electricity.php?r=20051214.200700>

NSW to rely heavily on imports from Qld and Snowy/Vic in high demand times by 2008/09 summer, TransGrid warns

4

The region of NSW was expected to rely heavily on imports from both Queensland and Snowy/Victoria at times of high demand by the summer of 2008/09, TransGrid said in its final report on a proposed large new network asset.

Emerging QNI constraints: TransGrid, the major transmission network service provider (TNSP), prepared the report to deal with

emerging constraints on the Queensland to NSW Interconnector (QNI).

Supply reliability issues possible: TransGrid said if the proposal did not proceed, constraints on QNI import due to limitations in the thermal rating of 965 line might lead to supply reliability issues in NSW from the 2008/09 summer onwards.

South flows could be at risk: It said that at times of high summer demand on the NSW mid North Coast, the thermal rating of the Armidale–Kempsey 132kV line 965 could constrain southward flows on QNI.

Lower thermal capacity: This was because of the co-incidence of high loads and the lower thermal capacity of transmission circuits at times of higher ambient temperature.

Last remedial works in 2003: Remedial works were undertaken in 2003 to increase the thermal rating of this line. As a consequence of these works, the summer day contingency rating of 965 transmission line was increased from 90 megavolt amperes (MVA) to 129MVA.

Loads grown since then: Since that time, loads on the mid North Coast had grown and the limitations on QNI flows imposed by the rating of the line were re-emerging. These limitations provided an opportunity to provide market benefits by augmenting the transmission network.

Benefits to mid North Coast: In addition to providing market benefits, the transmission network augmentation would also improve

reliability of supply to NSW. It would also provide benefits to the mid North Coast.

Reference: Notification by National Electricity Market Management Company (NEMMCO) of final report by TransGrid, the major NSW transmission network service provider (TNSP), on a proposed new large transmission network asset to relieve emerging constraint on Queensland-NSW Interconnector (QNI). 16 February 2007. NEMMCO address: Level 12, 15 William Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. <http://www.nemmco.com.au>

Southern Generators tell Snowy: talk drought with NEMMCO don't set-up plays for \$10,000/MWh earnings, under NEMMCO direction

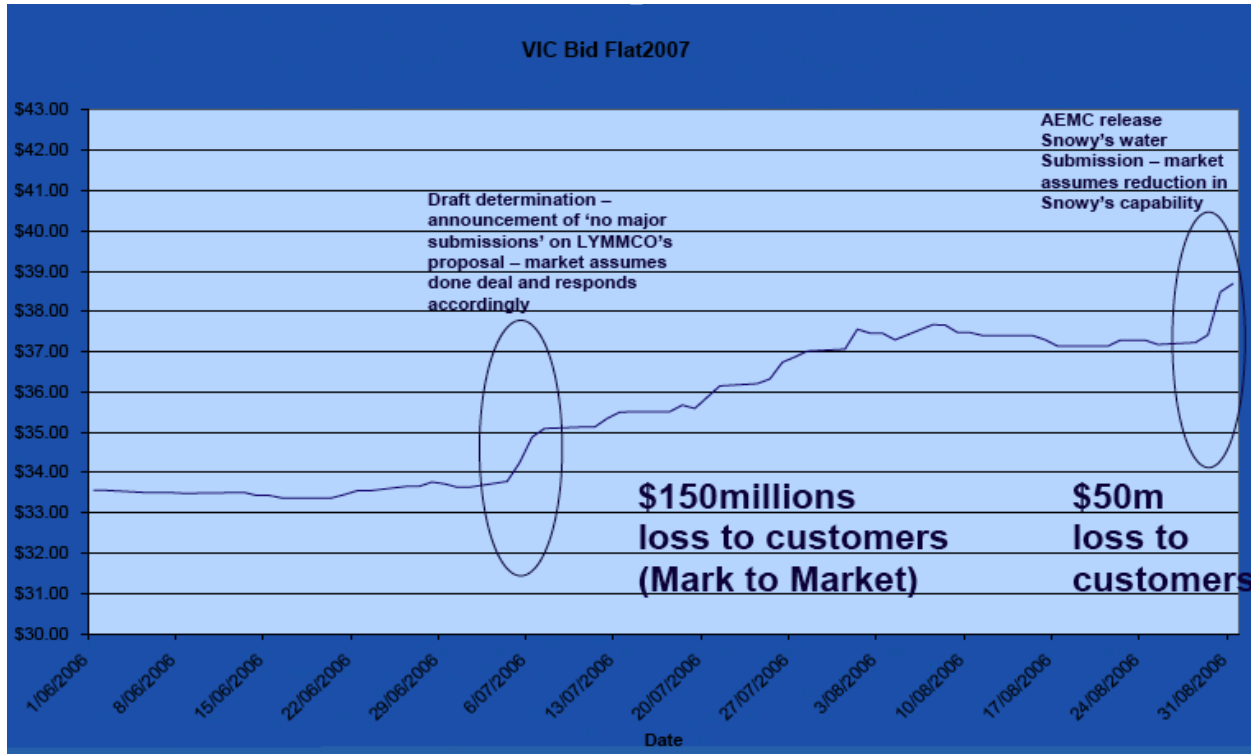
It's a battle of code changes - in games for maximum income - between Snowy Hydro and the Southern Generators, both had proposed code changes to move the borders of the NEM.

Its a money thing: Southern Generators told the regulator; "neither our proposal nor the Snowy Hydro reorientation proposal impact the physical capacity of the network to supply at times of high demand, only the prices received".

Hydro tactics the key: On 4th September 2006 in a letter to Dr John Tamblyn, Chairman, Australian Energy Market Commission, Southern Generators argued the Southern

How anticipation of AEMC OK of border change raised Vic prices

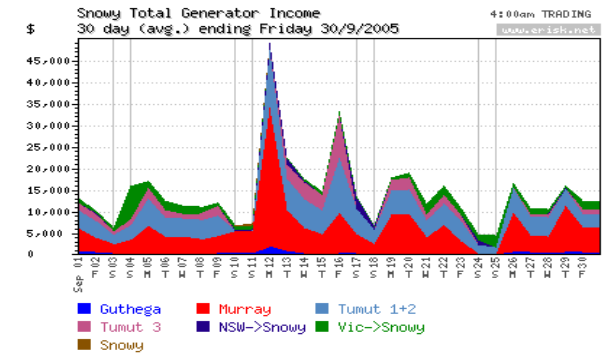
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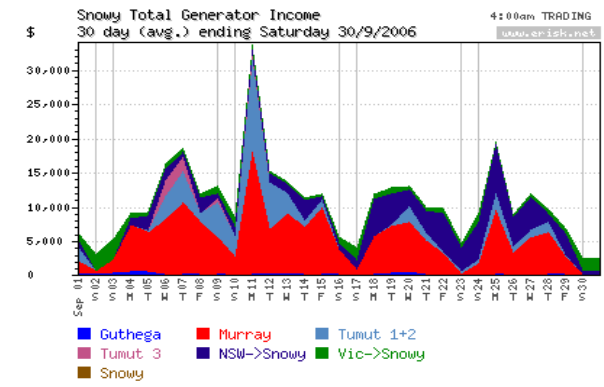
Big market impact from water data: Snowy Hydro in early August 2006, sent "significant data about the future Victorian prices after draft determination of AEMC on the border change.. Snowy also sent water information (about low water levels) at end of August; and both pieces of information had significant market impact.

Snowy Hydro and Southern Generator's AEMC Presentation: 5th September 2006 <http://www.aemc.gov.au>

Snowy pool income Sep 2006



Snowy pool income Sep 2005



Generators Rule Change itself would not require Snowy Hydro to operate their storages differently. "Storage positioning is a matter for Snowy Hydro to determine, we do not believe that in practice:

- Snowy Hydro would forego commercial opportunities to supply into Victoria when scarcity threatens there; simply because,
- without NEMMCO intervention they would receive only the true market value, i.e.

efficient prices, in the very rare circumstances of being forced to generate because of un-forecast high inflows. In short, we see this threat as not credible.

Snowy must talk drought plans with NEMMCO: If the current low inflow levels are a threat to supply reliability to Victoria in summer periods, then this is a matter that Snowy Hydro should be addressing with NEMMCO, through the MT PASA (forecast) process.

5

Reference: Roger Oakley on 03 9612 2211. 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. Loy Yang Marketing Management Company Pty. Ltd.; AGL Hydro Pty. Ltd.; International Power (Hazelwood, Synergen, Pelican Point, Loy Yang B and Valley Power); TRUenergy Pty. Ltd.; NRG Flinders Ply. Ltd.; Hydro Tasmania.

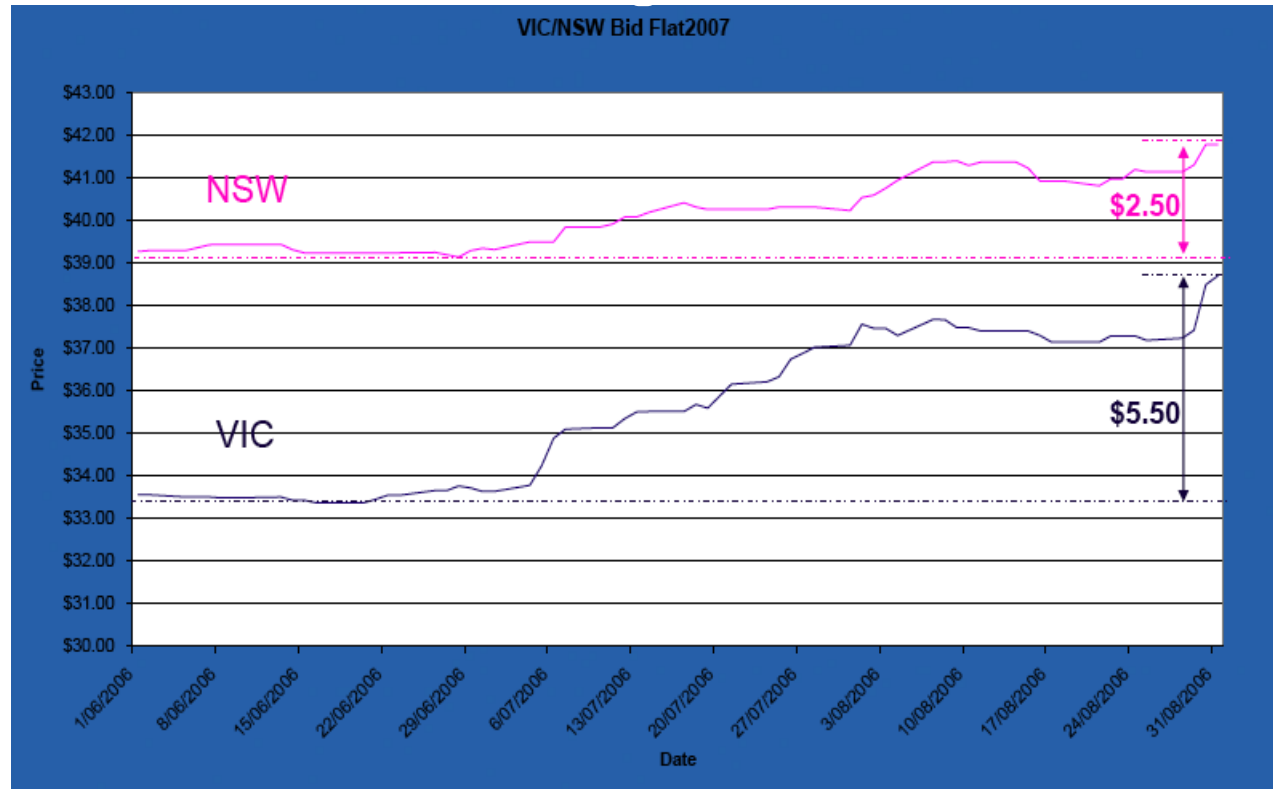
Record low levels in Great Lake force Hydro Tasmania to cut gen, import from Basslink

Tasmania's Great Lake had fallen to just 15.7 per cent of capacity and Hydro Tasmania storages overall have fallen to 27.4 per cent, says *The Mercury* (9/2/07, p. 1).

Cost of Basslink imports: Dry conditions had already cost Hydro a huge amount of money as it imports substantial amounts of power via Basslink. Hydro Tasmania energy and market analysis manager Michael Connarty said the reduction in generation from the 300-megawatt Poatina station would mean further imports to make up the shortfall of energy. "We will continue to import fairly heavily over Basslink if the dry conditions continue. Our net import of electricity has been just over 1000 gigawatt hours to the end of January."

Big imports imbalance: Dr Connarty said 1400 gigawatt hours had been imported compared with the export of 400 gigawatt hours. He said imported electricity cost

Unexpected Vic and NSW price rise in 2006



between \$20 and \$30 a megawatt while exports could fetch up to \$1000 a megawatt.

5th September 2006 <http://www.aemc.gov.au>

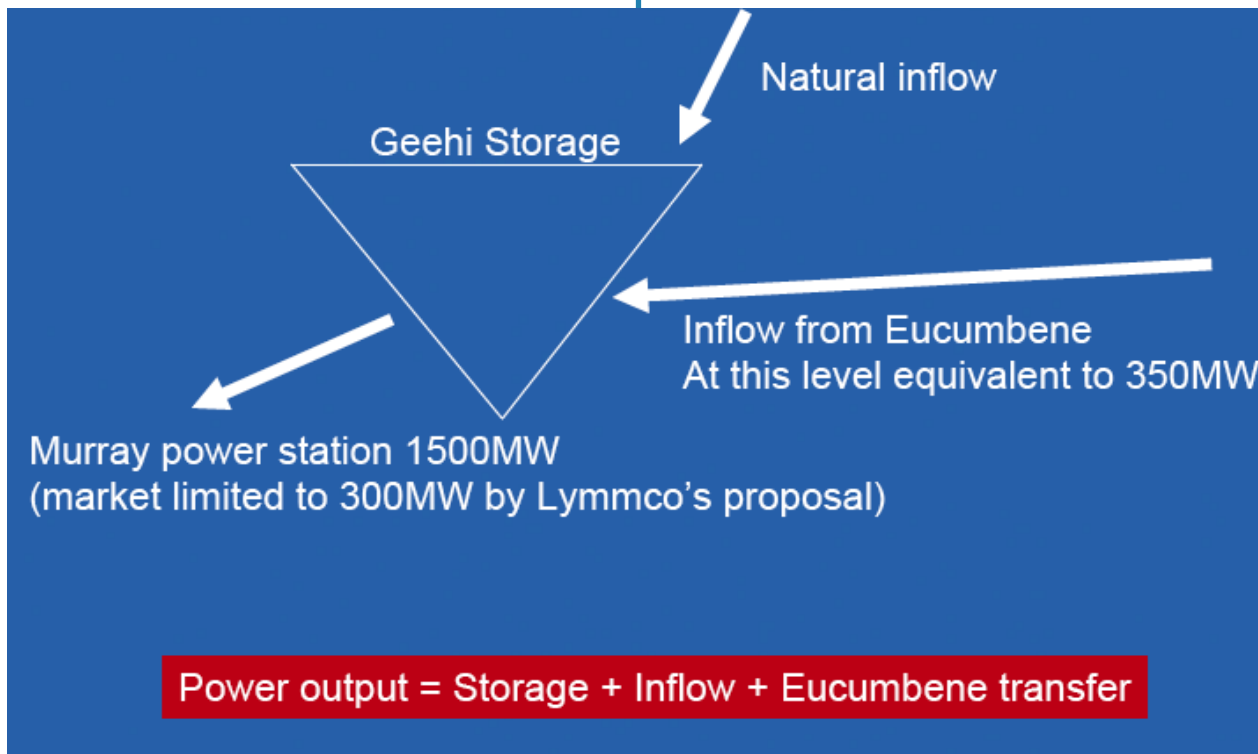
Snowy Hydro fights for water with Snowy River advocates

Under a deal struck between NSW, Victoria and the Commonwealth in 2000 Snowy River flow was scheduled to increase to 21 per cent in 2012 and

eventually to 28 per cent as efficiency improved in the Murray. But Snowy Hydro shut down one of the Snowy River's tributaries, the Mowamba, to aid power generation. Each of those increases for the Snowy was contingent on finding equivalent irrigation water savings in the Murray irrigation areas, which the Commonwealth appeared to have other ideas for.

Snowy's tactical Geehi storage explained

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7

How Snowy describes it: Geehi dam operations are difficult because it is a small storage that cannot be allowed to spill. For environmental reasons, it requires avoidance of spill at all cost. Avoidance of spill requires low storage level and/or ability to generate Murray stations at high level during times of high inflow events.

Snowy Hydro AEMC Presentation: Southern Generator's proposal, 5th September 2006
<http://www.aemc.gov.au>

The Snowy River was flowing at about 5 per cent of its natural flow but had received little attention in the water debate, even though its destiny was inextricably linked to that of the Murray, reported *The Australian* (17/02/2007, p.5). After helping block the privatisation of Snowy Hydro last year, those fighting for the river were preparing for a new battle to make sure its future was not overshadowed by the Murray shake-up. Gippsland Independent MP Craig Ingram told *The Weekend Australian* the Commonwealth's water plan had completely

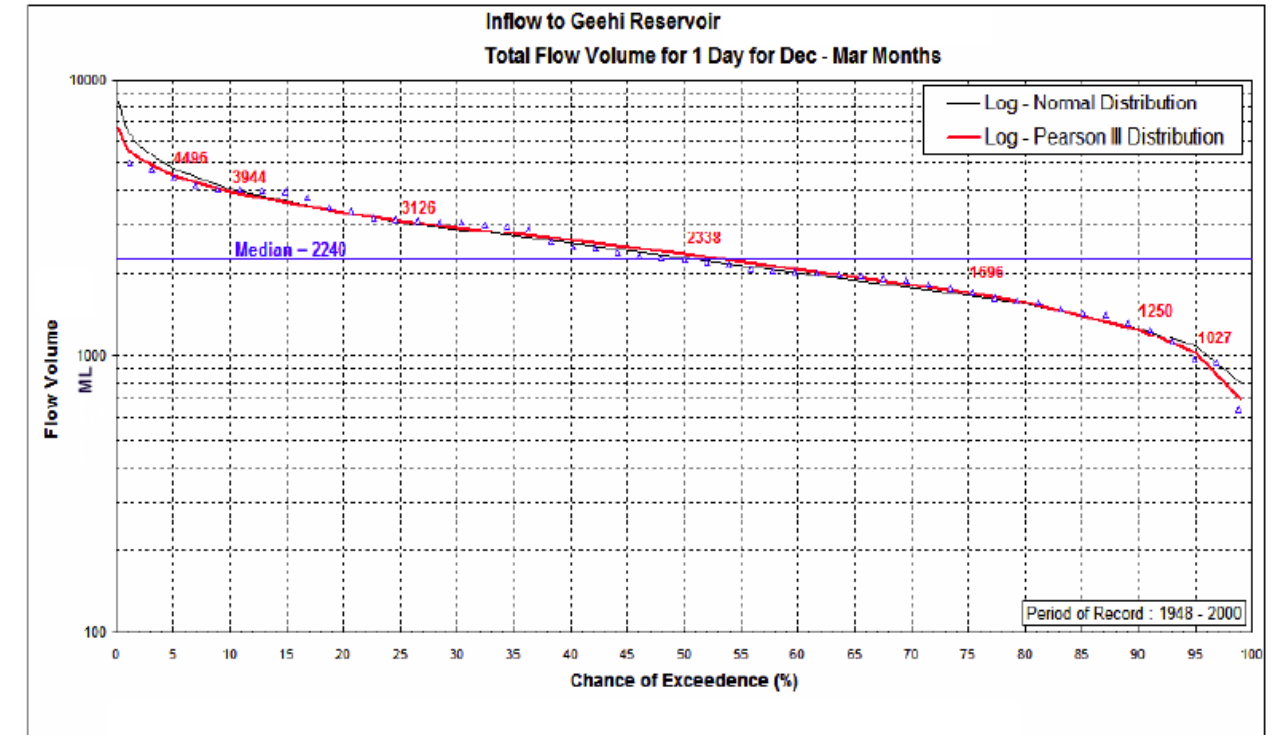
ignored the Snowy River. Ingram was concerned the water savings that were scheduled to bring the Snowy's flow up to 15 per cent in two years might be redirected down the Murray instead. NSW had still not set up a scientific committee on the river's health promised almost 10 years ago. The Victorian Government raised the river's future in a list of 44 queries it submitted to John Howard about the Murray-Darling Plan but declined to comment on the issue.

NSW Minister moots Macquarie Generation Rule change proposal: lays groundwork, to say, "no"

NSW Minister Joe Tripodi, in a letter to John Tamblyn, Chair of the Australian Energy Market Commission said a Macquarie Generation proposal would effectively replace the existing Snowy region with two new wholesale price regions for NSW and Victoria, with possible implications for retail pricing in both jurisdictions.

Tripodi lays groundwork to refuse: "In considering this matter, I note that while the MCE agreed that the regional structure for the wholesale market should be stable and based on current boundaries, it has also recognised the possibility of incremental change as required as long as this is supported by robust economic criteria".

Snowy to keep Geehi storage low rather than pay to generate



The spokesman said the electricity network was able to cope relatively well with the weekend's extreme temperatures because of a recent \$2 million upgrade to equipment.

Generators on the day: Adelaide temps were 31-38 .Electricity Week's erisk reported that in South Australia, Northern 1 quit in the 1400EST interval. Ladbroke Grove 1 and Ladbroke Grove 2 operated in the intervals between 1100-1830EST. Torrens Island A2

Snowy Hydro's case: "Storm risk requires that Snowy be free to generate at high levels or else storage must be kept low...so, Snowy chose to keep the storage low (30-50 per cent) rather than pay to generate. LYMMCO's "Southern Generators" proposal, ..creates negative price risk for Murray generation (Snowy would be forced to pay to generate)...the aim is to keep Geehi storage high (60-80 per cent) to maximise generation capability. As a consequence Victoria will have less certain reserves (at the time when Murray becomes Victorian generator of last resort - 600MW can be supplied only by Murray, because of network limitations). *Snowy Hydro AEMC Presentation: Southern Generator's proposal, 5th September 2006* <http://www.aemc.gov.au>

Please explain: "As to the customer pricing implications of the Macquarie Generation Rule change proposal, I require more information and analysis before committing to a specific position on this matter. In particular, I would be interested to know more about the extent to which prices for customers in both of the proposed NSW regions could diverge, together with the AEMC's own assessment of the net benefits of the proposal against the NEM objective".

Reference: Jonathan Wills, Manager - Industry Strategy, Department of Energy, Utilities and Sustainability on 8281 7416, or Rob Marlin on 8281 7376 for Joseph Tripodi Minister for Energy Minister for Ports and Waterways and Minister Assisting the Treasurer on Business and Economic Reform Level 31, Governor Macquarie Tower, 1 Farrer Phice, Sydney 2000 NSW Australia Telephone: (61-2) 9228 5451 Facsimile; (61-2) 9228 5466 Email: joe@tripodi.minister.gov.au <http://www.aemc.gov.au/electricity.php?r=20051214.200700>

18 February: peakers gasp for gas-pack in Adelaide 38C blackouts

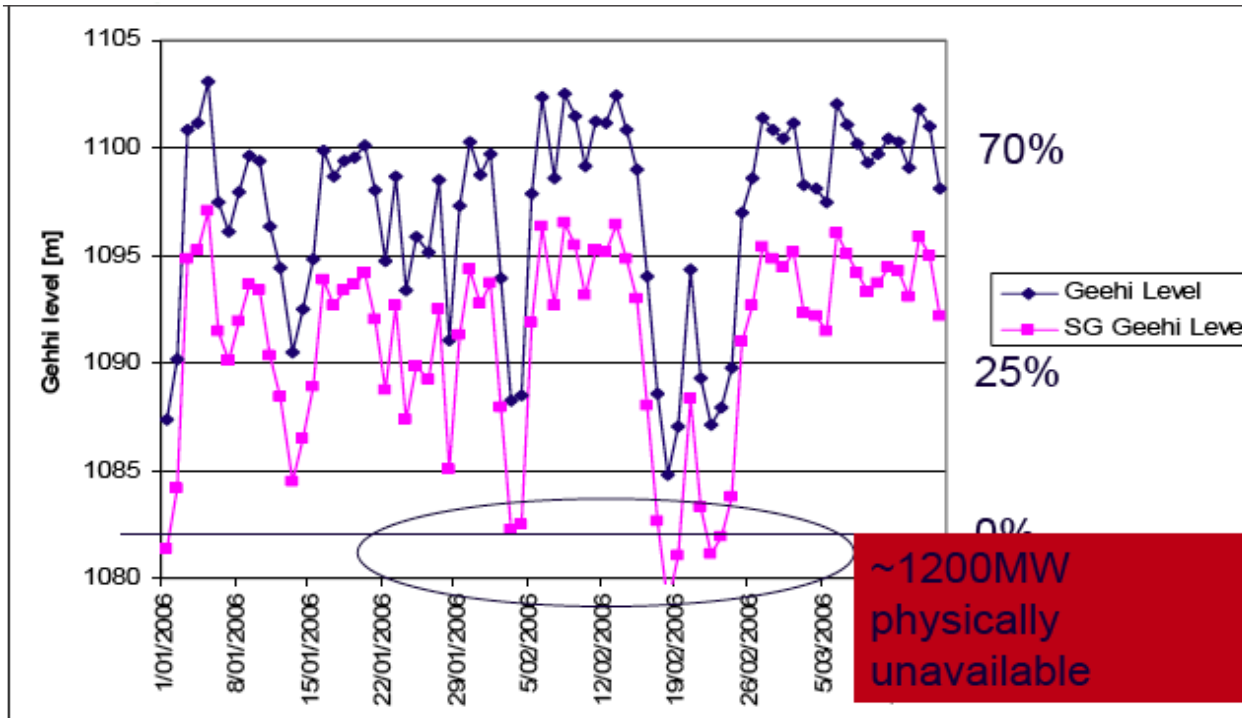
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About 250 homes in several Adelaide suburbs lost power for up to four hours on 18 February afternoon as transformers struggled to meet demand, reported *The Advertiser* (19/02/2007, p.12).

Network fails to cope: An ETSA advisor said isolated incidents occurred across Adelaide suburbs including Modbury Heights, Morphett Vale, Craigmore, Felixstow and Glenelg North.

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Days when 1200MW physically unavailable, summer 2006



Snowy explains its market power tactics: "Due to reduced generation capability there will be times that Snowy cannot bid generation due to its physical unavailability. This will have reliability implications and will have market price implications (price for Victorian customers). Due to reduced generation capability Snowy Hydro is incentivised to withhold its lesser quantity of available generation in anticipation of future higher price periods (higher opportunity cost). These will lessen competition confronting Southern Generators. Empirical evidence exists related to future contract market."

Snowy Hydro AEMC Presentation: Southern Generator's proposal, 5th September 2006 <http://www.aemc.gov.au>

went off in the 1830EST, followed by Torrens Island A3 in the 2230EST interval and Torrens Island A4 in the 2300EST interval. Torrens Island A1 was offline all day. Quarantine units 1 and 3 and Hallett operated at various times during the day

Sunday's non-conformists: NEMMCO declared the following scheduled generating units non-conforming over a failure to rebid during the trading day of Sunday, 18 February:

- The 240MW capacity South Australian generating unit Playford B-AG for -34MW from 1750EST to 1810EST.
- The 180MW capacity South Australian Osborne-AG power station for -15MW from 1840EST to 1930EST and for 11MW from 0040EST to 0140EST on Monday, 19 February.

On-off-on LRC for SA: In the predispatch projected assessment of system adequacy (PD PASA), NEMMCO reimposed a forecast low reserve condition (LRC) in South Australia from 1500EST to 1700EST on Monday, 19 February, with an estimated maximum reserve shortfall of 48MW in the 30-minutes ending 1630EST. NEMMCO said it was seeking a market response to the LRC but did not intend to intervene at this stage. Earlier, NEMMCO advised in a market notice at 0944EST that following a market response it had cancelled the forecast low reserve condition (LRC) for South Australia from 1300EST to 1700EST with an estimated maximum reserve deficiency of 64MW. The original notice at 0853EST on Monday, said the predispatch projected assessment of system adequacy (PD PASA) forecast the LRC.

High Snowy demand examined: NEMMCO advised that for the five-minute dispatch intervals 0250EST and 0255EST on Tuesday, 20 February, Snowy demand was recorded at about 680MW, leading to a very high maximum demand of 292MW for the 0300EST interval on Tuesday. NEMMCO said this outcome was being examined.

Saturday, 17 February: Vic records negative price of \$83.53/MWh in early afternoon trading intervals

Victoria recorded a negative price of minus \$83.53/MWh in the 30-minute trading interval ended 1400EST on Saturday, 17 February.

Negative Vic-Snowy transfers: This was just before NEMMCO invoked constraints at 1410EST to manage negative settlement residues that accumulated for Snowy-Victoria transfers. The constraints were removed after 70 minutes at 1520EST when management of the residues was completed.

Spikes follow negative price: In the two intervals after the negative price, Victoria recorded spikes to \$109.10/MWh in the 1430EST interval and to \$823.34/MWh in the 1500EST interval.

Reference: National Price for Victoria for one day, Saturday 17 February, in Price/Demand section of Erisk Net – Realtime NEM Data. <http://www.erisk.net>

10

Class action compensation claim against Western Power could reach \$15 million

Farmers had confirmed they were gathering evidence to mount a compensation claim against Western

Power in the event the utility was found negligent over the cause of last week's fatal fire, reported *Farm Weekly* (15/02/2007, p.14).

Farmers claim millions in damages: The fire - which claimed one human life - inflicted only minimal livestock losses, but ravaged crops, pastures, fences and stockfeed supplies, causing millions of dollars worth of damage across the district. Toodyay farmer Frank Panizza lost 95 per cent of his pasture while other farmers in the area suffered fire damage on up to 90 per cent of their properties.

Class action claim: Panizza estimated the class action claim could reach as much as \$15 million and was made up of a number of large and small claims, some in the vicinity of \$1m. "We've suffered from loss of income and top soil erosion while fencing, live-stock, feedstock hay, straw, pasture and water supplies have all been obliterated by the fire. We have suffered substantial losses and therefore should be entitled to seek some sort of compensation."

Farmers already concerned: He said concerns had been raised by local farmers in the past about risks associated with sagging power lines and general maintenance of the ageing network. "The power poles were placed too far apart and there has been numerous times in the past where these lines have clashed," he said. "There is no way this fire was caused by a freak accident."

"No fault" claim Western: A Western Power spokesperson said any compensation claim hinged on the issue of negligence but the initial

report, conducted by the Office of Energy Safety, did not find Western Power to be negligent.

Snowy Hydro wants Vencorp model for NEM transmission planning to remove political corporate conflicts of interest

The Victoria model where vencorp is an independent transmission planner and SPI AusNet is the transmission operator has proved to have worked reasonably well, Snowy Hydro noted in a submission to an ERIG Issues Paper.

Victorian model works: "This model appears to provide the market with more informed and detailed planning information and the operation of the transmission assets by a private owner has not caused major conflicts of interest between the network owners and generators".

National framework: Snowy Hydro submits that there is scope for rolling out this model on a national basis to cover all TNSPs that form part of the National Electricity Market (NEM). In Snowy Hydro's opinion, where transmission owners and operators are also responsible for transmission network investments planning, dysfunctional incentives, information asymmetry and a lack of transparency of future planning in new transmission assets potentially exist.

Problems of current system: Under the current arrangements TNSPs are potentially incentivised to:

- build more transmission assets under the current regulated revenue regime. These assets, when they are not economically efficient, are a drain on the economy; and
- favour excessive reliability of supply (to quell end use customer distress with electricity outages).

Avoiding electricity outages: “There are considerable political pressures on governments to avoid electricity outages, and public backlash usually follows any incident of domestic power cuts. Therefore in our opinion the TNSPs natural inclination would be to over invest in transmission to avoid loss of electricity. Where this occurs there may be a conflict between efficient investment and over investment to safeguard against loss of supply. We believe the TNSPs drivers should be to build in such a way that achieves market benefits and meets a prudent level of reliability as mandated by the relevant reliability standards. Where over investment occurs in transmission assets, sovereign risk becomes applicable for generation owners. A new generator may be incentivised to locate in a region with relatively high prices”.

Have independent party applying Test: An inefficiently built new transmission asset into this region reduces the effective region price and hence creates risk for the new generator. This is an example of where sovereign risk as

the basis on which new generation investment was made may be materially and adversely changed by inefficient transmission investment.

TransGrid has too much power: “In our view, the information asymmetry between TNSPs and the rest of the market exacerbates this risk. Sovereign risk reduces the ability of new investors to prudently invest in long-term assets.

Raises hedge contracts: “Hence, when these investments do occur, there could arguably be the need for significant risk premiums on hedge contracts to ensure that the new generation is commercially viable and to ensure that the returns are commensurate with the level of risks. We believe that third party independence in applying the Regulatory Test should reduce the risk of this occurring”.

Reference: Submission by Snowy Hydro to the ERIG Issues Paper, 4 August 2006, P. 5-6. Snowy Hydro Limited ABN 17 090 574 431, Level 25, Norwich House, 6-10 O’Connell Street Sydney NSW 2000, GPO Box 4351 Sydney NSW 1044, Telephone: 02 9278 1888, Facsimile: 02 9278 1879, <http://www.snowyhydro.com.au>. This document may be accessed <http://www.erig.gov.au/assets/documents/erig/Public%20Submission%20to%20ERIG%20final20060815180919.pdf>

Network loss in Vic

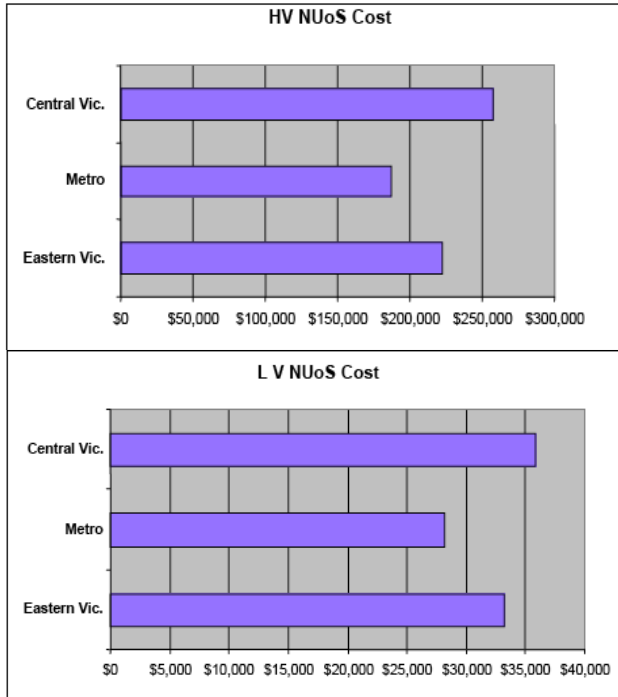
Region	DLF	MLF	Total Loss Factor
Central Vic.	1.0648	1.0807	1.1507
Metro	1.0489	1.0033	1.0524
Eastern Vic.	1.067	0.9939	1.0605

Total line loss factors in Victoria:A consumer survey had found in Central Victoria the impact of Low Voltage losses would bring retail rates to about 6.471/kWh peak and 3.175/kWh off peak. For 60 per cent of the participating business sites - that were identified as having higher negotiated retail rates - the Transmission Loss Factor (TLF) added further penalties to the electricity costs of these businesses

EnergyAustralia wants \$5000 limit on liability or blackout and surge damage

EnergyAustralia said to stay solvent in a catastrophic grid crash a \$5000 cap on liability per customer was needed. . It wanted a “balance is struck between the individual rights of customers to redress for loss and the overall public interest in ensuring that distributors will be able to obtain appropriate insurance and remain financially viable even after a failure to supply event affecting large numbers of customers. It also

Network Tariff Differential between Distribution Regions in Vic



Average High (top) and Low (bottom) Voltage User Total Network Cost (\$ pa): Comparison of total network cost for a low voltage customer was typically 7 per cent to 21 per cent above those in Melbourne or Eastern Victoria. Predominantly rural distributors had a much higher cost structure than their metropolitan counterparts partly as a result of a lower number of customers per kilometre of distribution asset (poles and wire) and the lack of equalisation assistance.

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

was of the view that the distributor should assess customer claims against the network, not the retailer, the company said in a submission to the MCE *National Framework for Distribution and Retail*.

Distributor must defend claims: “It is essential that the distributor has the right to defend any claims made against it and make payment to justified claims. If this function were to be given to the retailer, with the distributor indemnifying it for all settled claims, the retailer has an incentive to settle all claims for ease, rather than investigating them, because it would be indemnified by the distributor as proposed in the working paper.

Obligations on customers: “It is important that the distributor has a contractual relationship with their end use customers to address the physical and technical matters associated with the operation of the network that cannot reasonably be managed by any other party. This includes imposing appropriate obligations upon customers to take measures to protect their premises and equipment, as contemplated in the working paper and communicate directly with the distributor any changes to customer’s installation or load which impact upon the performance or operation of the network.

When distribution fails: Below are some principles for dealing with one of the most crucial and controversial aspects of the relationship between the distributor and the customer; being what happens when there is some failure in the provision of distribution

services by the distributor. For loss or damage incurred by customers due to a failure to supply by the network operator, EnergyAustralia principles:

- immunities from liability established in section 120 of the NEL for all Registered Participants must be preserved.
- Distributor is not liable to the customer for damage/loss incurred by the customers due to matters outside of the distributor’s control or planned or unplanned interruptions as contemplated in the contract between the distributor and customer.
- Distributor is not liable to the customer for economic loss claims both direct and indirect including loss of revenue, loss of profit, wages etc incurred by the customer.
- Distributor is liable to the customer for property/personal damage/loss incurred by the customer due to:
 - electricity delivered to the customer’s premises outside the voltage and other relevant standards determined and published by the distributor from time to time; or
 - interruptions to, or failure to deliver electricity to the customer’s premises, where caused by the distributor’s fault. This concept of fault should align with the legal concepts of negligent or bad faith,

but may need to be articulated in a way which will enable the effective management and processing of customer claims.

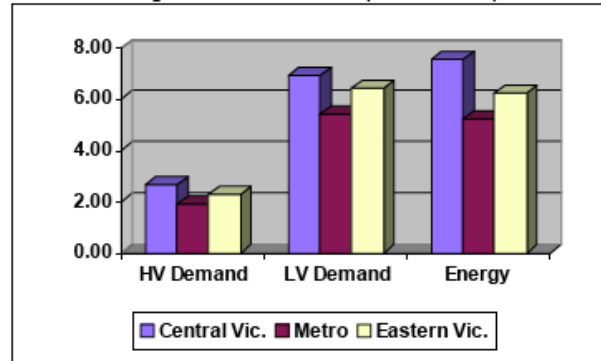
Distributor's liability limited as follows:

- For claims made by small retail customers: distributor is liable only for direct losses and its liability for all valid claims a customer makes in one year is limited to \$5,000; and
- For claims made by other customers: distributor is liable only for direct losses and its liability for all valid claims that customer makes in one year is limited to \$5,000, or 25 per cent of annual network charges for a customer (whichever is greater).

User to chase retailer and distributor? Any liability of the distributor to the customer where the distributor is liable under trade practices laws will be confined to the limitation available under those laws, (i.e. to re-supplying the services or paying for their re-supply).

Where the distributor initially refuses a claim the customer may choose to pursue that claim against the retailer on the same basis. Where the customer is subsequently successful in claiming against the retailer on the same basis (for example a court holds that there was a negligent failure to supply), the distributor will indemnify the retailer against the costs it incurs in defending such a claim.

Regional cost differences (cents/kWh) in Vic



Cost differences in cents per kWh: The regulated network charges are primarily responsible for the significant difference in the delivered electricity cost for businesses in Central Victoria. The cost differences in cents per kWh as applied to the three typical customers for the designated Distribution Regions is displayed.

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

Reference: EnergyAustralia, National Framework for Distribution and Retail, Submission on the RPWG working paper 2, 8 February 2007, P. 4-5

TransGrid decides: meet QNI constraint with new TransGrid transformer Armidale; or allow competing new gen, or DSM?

The recommended option to meet the emerging constraint on the Queensland-NSW Interconnector (QNI) involved

installing a 132kV phase shifting transformer (quadrature regulator at Armidale to control power flow on the single circuit 132kV line 965, TransGrid said in its final report on a proposed large new network asset. TransGrid had the power to refuse competitive proposals.

To hot to trot: It said further increases in the thermal capacity of the 132kV 995 line beyond the present ratings were not practicable.

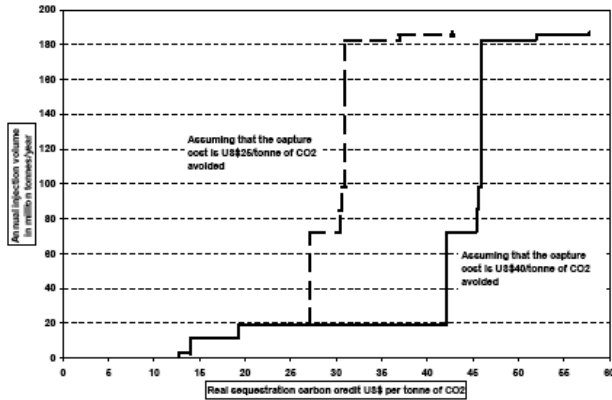
Three submissions/inquiries: Following the publication of the revised version of this proposal in May 2006, TransGrid said it received three submissions/inquiries:

- Preliminary inquiries from a party considering the mid North Coast as one of a number of possible locations for additional generation in NSW;
- A general proposal to establish generation in the area should natural gas become available; and
- A preliminary inquiry from a party contemplating coordinating and aggregating end-use customer demand reductions.

Preliminary stage: TransGrid said all these proposals were at a preliminary stage of development.

Reference: Notification by National Electricity Market Management Company (NEMMCO) of final report by TransGrid, the major NSW transmission network service provider (TNSP), on a proposed new large transmission network asset to relieve emerging constraint on Queensland-NSW Interconnector (QNI). 16 February 2007. NEMMCO address: Level 12,

Uneconomic CO2 dumps; at ~500 Mt CO2/year



CO2 storage potential of Australian reservoirs: The volume of CO2 that could be stored for any given level of the carbon credit. Costs of capture of US\$25 and US\$40 per tonne are assumed. The effects of income tax and any secondary taxes are ignored. Subsequent analysis based on matching of potential storage sites with nearby CO2 sources and applying some economic and technical cut-offs identifies that Australia has a realistic potential to sustainably store up to 25 per cent of annual emissions of ~500 Mt CO2/year. Given the large theoretical potential that exists in Australia for storage, opportunities to store large quantities of CO2 will become available as the economics of capture and storage decreases and the costs of emitting CO2 increase. This can also be expressed by examination of the cost curve approach where between 20 and 180 Mt CO2/year could be stored depending on the cost of capturing and storing CO2.

www.aph.gov.au/house/committee/scin/geosequestration/subs/sub41attachd.pdf

15 William Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. <http://www.nemmco.com.au>

Compo of \$35 to NSW and Vic for loss of Snowy company tax

In the *Appropriation Bill (No. 4) 2006-2007*, presented in Federal Parliament, for payments additional to the 2006-2007 budget included compo to NSW and Vic. The Federal Treasurer asked the state to re-invest it: "It would be appreciated if the major shareholders in Snowy Hydro in New South Wales and in Victoria reinvested that \$35.4 million that they will receive in the company, the treasurer said. It will ensure that the company proceeds appropriately in the future."

- additional compensation payments totalling \$35.4 million to New South Wales and Victoria under the Snowy Hydro Ltd corporatisation agreements.
- The payments compensate for the lower dividends received by these states from Snowy Hydro Ltd as a result of the company now paying company tax, ensuring that the states are not penalised by the new structure.

No Snowy Hydro sale: The additional payments arise because the sale of the company will not proceed.

Na na to you, too: "I am very proud of the fact that the Commonwealth pulled out of the sale of its small amount. This, within 15 minutes,

forced New South Wales — who were going to do it all on their own — to pull out. They were going to privatise it all on their own, but, because our minor shareholding did not proceed, they pulled out. It is funny about that; I do not think that NSW Premier lemma was looking forward to the political heat that was going to be applied to him."

Reference: **HOUSE OF REPRESENTATIVES, Votes and Proceedings, Hansard, Thursday, 8 February 2007, P. 2-3.**

New Vic Crowlands Wind Farm; 80 generators of 2MW each with three 45m blades for national electricity grid

The Crowlands Wind Energy Facility would comprise up to 80 wind-powered electricity generators. Located in the Shire of Pyrenees, 30 km NE of Ararat, it would be accessible via the Pyrenees Highway. The project involves the construction of a commercial scale wind farm of up to 80 generators of around 2MW each. All electricity would be fed into the national electricity grid, connecting to the 220kV transmission line at a substation located within the site boundary.

Assessment of wind regime: Nine wind anemometers (three on each of three towers) are currently installed within the wind farm site to assess the local wind regime and enable predictive modelling.

Turbine blades 45m length: Each turbine would consist of three blades up to 45m in length and have a nominal maximum rotational speed of 1720 rpm. The generator would be fully enclosed within the nacelle located at the top of the tower. A transformer (3m x 2m x 2m) would be located within or immediately adjacent to each generator.

Reference: Pacific Hydro Pty Ltd/Energy generation and supply (renewable)/Shire of Pyrenees/VIC/ Crowlands Wind Energy Facility, Invitation for Public Comment on Referral, Environment Protection and Biodiversity Conservation Act 1999, Referral Form, 13 Feb 2007, P. 1-5. This document is available at http://www.environment.gov.au/cgi-bin/epbc/epbc_ap.pl?name=current_referral_detail&proposal_id=3285
Contact: Roger Holloway, Environmental Planning Manager, Pacific Hydro Pty Ltd, Level 10, 474 Flinders Street, Melbourne VIC 3000, Australia. Email: rholloway@pacifichydro.com.au Ph: (03) 9615 6462, Fax: (03) 9620 4433. Rob Grant, Chief Executive Officer, Pacific Hydro Pty Ltd, Level 10, 474 Flinders Street, Melbourne VIC 3000, Australia. Email: rgrant@pacifichydro.com.au Ph: (03) 96156411, Fax: (03) 9620 4433.

Renewables company and Tas Hydro test wind storage

15

Gerry McGowan reckons he added to the hole in the ozone layer as he ran Impulse Airlines, says *The Australian* (19/2/07, p.29).

King Island program: Now, as executive chairman of the ASX-listed renewable energy company CBD Energy he was working with Hydro Tasmania to develop a storage

technology for its five wind turbines on remote King Island. Approached by many different people after being bought out of Impulse, McGowan chose to invest \$3.5 million in CBD Energy in 2004, attracted by its work in developing storage technology for renewable energy.

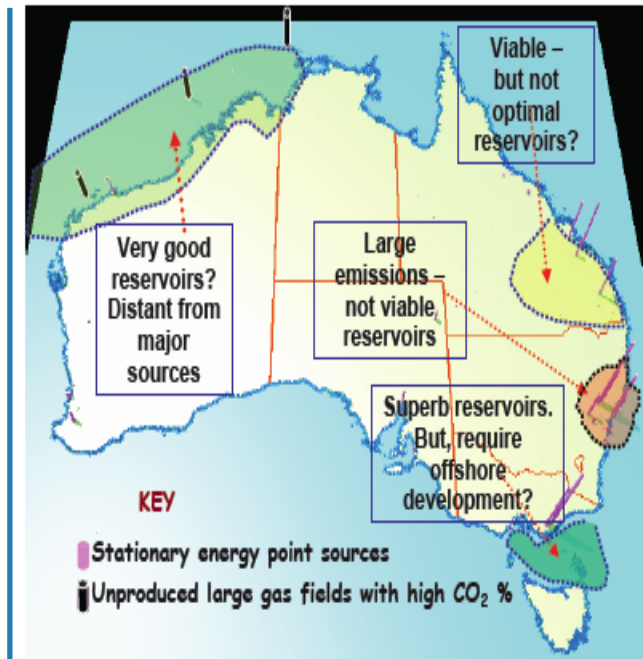
Carbon block technology: CBD is trying to commercialise a carbon block technology developed by Lloyd Energy Systems, working with Hydro Tasmania to use wind power to replace about a third of the diesel fuel used for the island's power station. The process involves converting the wind power into steam at 800C and storing it in graphite blocks which can be used to run steam turbines later.

Equity fund fees of \$150 million over four or five years no matter what happens

Managers of a \$1 billion private equity fund could easily produce fees of \$150 million over four or five years no matter what happened before any performance fees were paid out of the profits on the eventual sale. This was an incredibly dangerous situation, Kohler said, and one in which craven super fund trustees were complicit.

Whole sector into a bit of joke: Alan Kohler, publisher of *Eureka Report*, said that, in his view, the base management fee of usually 2 per cent and up to 4 per cent charged by the

The CO2 dump zones



so-called alternative fund managers - private equity, hedge funds and infrastructure - turned the whole sector into a bit of joke, and reflected very poorly on the super funds that were paying it, reported *The Age* (07/02/2007, p.12). The manager of a \$1 billion private equity fund got \$20 million base fee a year. In addition, there were often transaction fees of around 1 per cent on the various takeovers the fund's money was spent on. Since a \$1 billion fund was geared up to \$4 billion worth of takeovers with bank debt, that could equal \$40 million in transaction fees, both on the way in and then on the way out, when the business was sold or floated again.

Reference: Eureka Report is a newsletter financially backed by Carnegie, Wylie & Co. The views expressed here are Kohler's alone, not Carnegie Wylie's. He may be contacted at ak@eurekareport.com.au

AGL Powerdirect: \$1300 each

AGL Energy Limited (AGL) formally announced on 19 February that it had successfully acquired Powerdirect Australia from the Queensland Government for \$1,200 million. The acquisition delivers AGL an additional 473,000 residential, small-to-medium enterprise (SME), and industrial and commercial accounts. With a combined load exceeding 19TWh (terawatt hours), Powerdirect is 20 per cent larger than the Sun Retail business sold by the Queensland Government last year. The price paid for Powerdirect represents about \$1300 a customer compared with Origin's acquisition of Sun Retail at \$1100 a customer, public or shareholder entitlement offer. However, following completion of the placement, AGL intends to implement a Share Purchase Plan (SPP) to allow eligible shareholders to subscribe for up to \$5,000 of shares at the same price as shares are issued under the placement subject to a maximum total raising of \$75 million under the SPP.

Alleged terrorist, downloaded maps! Had books! Was member of library! Possessed copy of The Art of War by Chinese philosopher Sun Tzu

Willy Brigitte the Frenchman accused of plotting to blow up nuclear and military installations in Australia, has had three years in prison.

Black tracksuit! Dressed in a black tracksuit, his short black hair in dreadlocks, the Caribbean-born Brigitte faced a three-judge tribunal whose president read a dossier of his alleged terrorist activities compiled by French investigators.

Downloaded maps! The dossier included an allegation that a document found on Brigitte - who lived in Sydney from May to October 2003 - contained maps of Australian military and nuclear installations, the judge said. The maps had been downloaded from websites.

Had library book? Brigitte also possessed a copy of The Art of War by Chinese philosopher Sun Tzu and information on how to escape detection in crowded places.

Phoned Australia! A mobile phone taken from Brigitte showed that calls he made before arriving in Australia in May 2003 included ones to an Australian number.

Direction issued to NQ generator on 10 January after constraint violated, says NEMMCO report

Anorth Queensland generator with suitable fast-start equipment was directed to synchronise its plant to the network for 29 minutes on Wednesday, 10 January, the National Electricity Market Management Company (NEMMCO) said in its report on the direction.

All others dispatching at full load: NEMMCO said all other participants in north Queensland were dispatching to full load at the time.

Plant bid unavailable : The direction was issued when the participant with plant available bid it unavailable to avoid uneconomical dispatch.

Double circuit trip: The problem began when NEMMCO declared a double circuit trip of 275kV transmission lines 822 and 840 (Nebo to Strathmore) as a credible contingency.

Problems with constraints: Initially, NEMMCO invoked constraint Q_RS_450 to manage the flow of energy from central Queensland to north Queensland. When the constraint bound, NEMMCO invoked constraint Q_RS_230, and when this constraint violated, NEMMCO issued the direction at 1616EST to maintain the power system in a secure operating state.

Direction removed at 1645EST: When the directed participant bid its plant unavailable the only option remaining for NEMMCO, besides load shedding in north Queensland, was to issue a direction to provide network support to the transmission network. The participant complied with NEMMCO's direction, which was removed at 1645EST.

Compensation position: NEMMCO said the direction was considered as being a direction for "Other Service - Network Support". Compensation for the direction would be determined in accordance with clause 3.15.7A of the National Electricity Rules.

Independent expert being appointed: NEMMCO was in the process of appointing an Independent expert to determine the fair payment price for the direction.

Reference: Report by National Electricity Market Management Company (NEMMCO) on directions issued in Queensland on 10 January 2007. 12 February. Address: Level 12, 15 William Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. <http://www.nemmco.com.au>

Origin says VRET rules may define expansions for generators too narrowly

17

The proposed rules for the Victorian Renewable Energy Target (VRET) might define eligible capacity expansions for existing generators too narrowly, Origin Energy said in a submission to the Essential Services Commission (ESC) of Victoria.

New investment may be discouraged: Origin said this could result in some genuine "new investment" being discouraged.

Increase nameplate MW capacity: Under the draft rules, a pre-existing generator must increase its nameplate MW capacity to be eligible for creating Victorian renewable energy certificates (VRECs). However, there might be other capital investments that would increase output aside from capacity expansions - and these might also require VRET support to be commercially viable.

Landfill gas project example: For example, a landfill gas project might operate well below potential capacity factors because it had inadequate gas extraction equipment on site to handle the required volumes.

Additional equipment could lift output: The plant could therefore increase its output with additional equipment, but would do so without increasing its nameplate capacity. But the owners of the plant might not undertake this type of investment if it were not recognised under the VRET rules.

Greater flexibility urged: Origin urged the ESC to consider whether the rules could allow for greater flexibility so as to avoid such unforeseen and undesirable outcomes.

Reference: Submission from Origin Energy to Essential Services Commission (ESC) of Victoria on the Victorian Renewable Energy Target (VRET) framework paper and draft rules. 25 January 2007. ESC address: 2nd floor, 35 Spring Street, Melbourne. Vic. 3000. Phone (03) 9651 0222. Fax: (03) 9651 3688. <http://www.esc.vic.gov.au>

Exemption of Alcoa Point Henry and Portland smelters in October 2006 raised by Origin Energy in submission on VRET

A matter of concern was that the draft rules for the Victorian Renewable Energy Target (VRET) did not attempt to deal with the question of Ministerial exemptions, Origin Energy said in a submission to the Essential Services Commission (ESC) of Victoria.

Power of Minister to exempt end-user acquisitions: Origin said that under Section 57 of the Victorian Renewable Energy Act 2006, the Minister for Energy might proclaim an end-user's electricity acquisitions to be exempt under the scheme. It said such a proclamation was made to exempt Alcoa's Point Henry and Portland smelters in October 2006.

No detail provided: While this power was clearly at the Minister's discretion, and hence largely out of ESC control, it was concerning that the rules did not attempt to provide any detail around the process, timeframe etc for such exemptions.

Advantages of greater transparency: Origin suggested that greater transparency and a minimum notice period would greatly assist participants in managing their price and volume risk under the scheme.

Issue of other State schemes: Origin said that while the Victorian Act and the proposed rules provide considerable clarity with respect to dual-eligibility under VRET and the Commonwealth's Mandatory Renewable Energy Target (MRET), it would greatly assist participants if the ESC could also clarify the arrangements that applied for the NSW Renewable Energy Target (NRET) and any other state-based schemes that might emerge.

Consultation with stakeholders: As with all rule changes, Origin suggested that potential impacts on participants resulting from the transition to a multi-state scheme should be considered carefully and in close consultation with stakeholders.

Reference: Submission from Origin Energy to Essential Services Commission (ESC) of Victoria on the Victorian Renewable Energy Target (VRET) framework paper and draft rules. 25 January 2007. ESC address: 2nd floor, 35 Spring Street, Melbourne. Vic. 3000. Phone (03) 9651 0222. Fax: (03) 9651 3688.

VRET rules need set of guidelines on what's meant by proposed "scheme generation methodology"

The rules for the Victorian Renewable Energy Target (VRET) should include a set of guidelines on the "scheme generation methodology", Babcock and Brown said in a submission to Victoria's Essential Services Commission (ESC).

Eligibility for certificates: In its submission on the VRET framework paper and draft rules, Babcock and Brown said the proposal involved the ESC being required to establish rules for calculating the quantity of electricity that was eligible to create certificates.

Guidance not provided: However, the proposed rules did not provide any guidance and referred this to the "scheme generation methodology".

Simple apportionment for most generators: Babcock and Brown said that for most generators in most years the guideline should be that generation was attributed to scheme capacity and pre-scheme capacity in proportion to each capacity (simple apportionment).

Proposal on how to handle upgrades: For generators that increased their capacity factor and rated capacity as the result of any upgrade, a "pre-scheme capacity factor" and "scheme capacity factor" could be determined and used to apportion the generation. This should also be included in the guidelines.

Cumulative production method for hydro generators: For hydro generators with the potential to "pump the system" and divert water from one generator to another, an effective approach would be a "cumulative production method" whether the total production from the start of the scheme must exceed the cumulative baseline over the same period.

Certificates only when cumulative baseline exceeded: Using this method, generators would only be able to create certificates when they exceeded the cumulative baseline and must return certificates when they drop below it.

Low production years covered: This would force hydro generators to account for the low production years and maintain a cumulative surplus before creating certificates.

Reference: Submission by Babcock and Brown to Essential Services Commission (ESC) of Victoria on the Victorian Renewable Energy Target (VRET) framework paper and draft rules. 1 February 2007. ESC address: 2nd floor, 35 Spring Street, Melbourne. Vic. 3000. Phone (03) 9651 0222. Fax: (03) 9651 3688. <http://www.esc.vic.gov.au>

Energy Ombudsman of NSW calls for special help for poor

Many of the disputes raised with the Energy and Water Ombudsman of NSW (EWON) by low-end large customers are also commonly raised by small customers (ie disconnection for credit; delays in facilitating connection of new developments; disputes over responsibility for the cost of network augmentation; and issues about Type 5 metering and its associated tariff packages), EWON remarked in response to the Retail Policy Working Group National Framework for Distribution and Retail Regulation Working Paper 2.

Issues affecting only large customers: That noted, there are some issues that are peculiar to large customers (ie disputes over responsibility for meeting the cost of asset upgrades where larger developments are concerned – eg upgrading from standard metering to Direct Current metering).

Consumption level shouldn't be basis for protections: As we noted in our response to Working Paper 1, EWON's experience suggests that while energy consumption can be – and currently is – used as a means of establishing the protections to be made available to a consumer, the equation is not an exact one. While EWON receives few complaints from large retail customers (ie those above the NSW thresholds for electricity [160 MWh/yr] and gas [1 TJ/yr]), it is clear that some of those who contact EWON would not be considered large businesses under standard definitions but are simply small enterprises with large energy demands (small food handling businesses that use freezers or small workshops with high energy use tools or equipment). Customers in these circumstances – who might otherwise be small owner-run businesses – are not infrequently in positions of significant disadvantage where their level of consumption has disallowed them access to the benefit of consumer protection regulation currently available to those whose consumption falls below the threshold.

Some businesses more at risk than residents: Indeed, the considerable reliance of certain small businesses on energy and

water places them at a significant disadvantage when trying to resolve disputes with providers, especially when the latter have strong sanctions available to them (eg disconnection of supply, credit listing). In EWON's experience, such sanctions may in certain circumstances have even more dramatic implications for small businesses than for residential customers.

Special consideration for particular vulnerabilities: For this reason EWON considers that consideration should be given to customers with particular vulnerabilities – such as the small businesses listed above or small business owners with language or other difficulties – particularly in terms of access to fundamental protections, notably distributor disconnection/reconnection and external dispute resolution.

Reference: Energy and Water Ombudsman NSW, Response to Retail Policy Working Group National Framework for Distribution and Retail Regulation Working Paper 2, 29 January 2007, p.7.

Hazelwood: wood waste from bushfires is “renewable”

Current bushfire conditions meant definitions in the Victorian Renewable Energy Target (VRET) rules should be sufficiently broad to encompass wood waste resulting from fire destroying a plantation, the Essential Services Commission (ESC) was told.

Hazelwood's access to plantation waste: In a submission on the VRET framework paper

and draft rules, International Power Australia (IPRA) said IPR Hazelwood had access to plantation wood waste that resulted from bushfire decimating a local plantation.

Plan to burn it as renewable: The plan for this wood waste was to burn it in windrows. Hazelwood rescued the timber from this process, instead seeking to burn the product as a renewable, since it was plantation timber.

Why it should meet eligibility criteria: IPRA said it believed this biomass would meet the eligibility criteria because:

- it was derived from a plantation which was established before 1989;
- it resulted from the clearance of the land; and
- there was no higher value for the material (since there was no other use for fire-damaged Radiata pine).

If not, then definitions need to be broader: However, should the ESC view be that this was not the case, IPRA would seek that the definitions be sufficiently broad as to encompass this potential source which may be repeatable, given current bushfire conditions.

Reference: Comments by Stephen Orr, commercial director, International Power (Australia) Pty Ltd (IPRA) to Essential Services Commission (EC) of Victoria on the Victorian Renewable Energy Target (VRET) framework paper and draft rules. 25 January. ESC address: 2nd floor, 35 Spring Street, Melbourne. Vic. 3000. Phone (03) 9651 0222. Fax: (03) 9651 3688. <http://www.esc.vic.gov.au>

Draft EMF standard includes stricter compliance requirements at 50Hz

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) released on 7 December a new draft ELF (0-3kHz) EMF Standard for Australia for a public comment period of three months.

ARPANSA looks into health effects:

ARPANSA is an agency of the Commonwealth Department of Health and is responsible for the regulation of electric and magnetic fields (EMF) including power frequencies (50Hz). The purpose of the draft Standard is "to prevent adverse health outcomes".

EMF exposure reference levels: The Standard proposes the following instantaneous reference levels for EMF exposure at 50 Hz:

- Magnetic fields:
- General public 100 microtesla (1,000 mG)
- General public "Controlled Activity" 3000 microtesla (3,000 mG)
- Occupational 500 microtesla (5,000 mG)
- Occupational "Controlled Activity-head" 1500 microtesla (15,000 mG)
- Occupational "Controlled Activity-body" 1800 microtesla (18,000 mG)
- Electric fields:

- General public 5 kV/m
- General public "Controlled Activity" 10 kV/m
- Occupational 10 kV/m
- Occupational "Controlled Activity" 20 kV/m

"Controlled Activity" defined: Reference should be made to the draft Standard for descriptions of "Controlled Activity".

Draft moots stricter requirements: The new draft Standard is stricter in its compliance requirements at 50 Hz than the former NHMRC Guideline of 1989, as some reference levels have been reduced and all reference levels are instantaneous rather than time-averaged values as in the NHMRC Guideline of 1989. The reference levels are however similar in value in many cases to instantaneous levels of the current ICNIRP (International Committee on Non-ionizing Radiation Protection) Guidelines of 1998.

EMF changes afoot: Industry will need to make some changes to its management of the EMF issue, both for the public and employees, when the Standard is finalized.

Comment before 28 February: The electricity industry has already made some input to the development of the Standard and RIS through consultation with ARPANSA. Public comments on the draft Standard should be made to ARPANSA by 28 February 2007. The draft Standard and associated documents are

available through the ARPANSA web site <http://www.arpansa.gov.au>.

Electrician's bible found lacking: Wiring Rules AS/NZS 3000: no advice about how to reduce EMF exposure

The Wiring Rules AS/NZS 3000 is the standard applying to wiring of premises in Australia and New Zealand and is required to be followed by all electricians. This document (AS/NZS 3000:2000) currently contains no advice about EMF or how to reduce EMF exposure.

EMF exposure potential unknown:

Reduction of EMF exposure is not generally warranted by the proven health effects of EMF. However, it is considered a useful "precautionary" or "prudent avoidance" measure to reduce exposure where scientific uncertainty remains and costs are very low for those who may be concerned.

Appendix for exposure minimisation info:

The electricity industry was requested to propose an appendix providing advice on simple, low cost, wiring procedures that would reduce field exposure, especially when new electrical work was being done. The appendix would not be mandatory but informative so that interested members of the public could have EMF exposure minimised.

How to reduce EMF: The draft Appendix provided advice on five basic techniques that may be used in the design and installation processes to reduce EMF: reduce electrical current by using more energy efficient equipment for lift motors, air conditioning equipment and industrial motors and manufacturing equipment; balance circuits to minimise net magnetic fields; cancel magnetic fields by circuit installation arrangements that reduce distance between, or coordinate the relative placement of, all conductors in the same circuit; maximize distance between EMF sources and sensitive areas where the level, duration, affected persons or other consequences of exposure may warrant attention; and shield sources by containment or dispersal behind specialised barriers.

Standards Australia submissions: The Appendix on EMF reduction measures was included as part of the new draft standard that was issued for public comment in the middle of 2006. Standards Australia is reviewing comments received prior to issuing the new version of the Wiring Rules.

ELF standards submissions sought: Also on the ARPANSA web site - <http://www.arpansa.gov.au> - is the new draft ELF Standard which ARPANSA has developed over the last few years to replace the current National Health and Medical Research Council Guideline of 1989. This is open for public comment until 28 February 2007.

Amyotrophic lateral sclerosis risk from EMF for workers in electrical industries; confirmation studies required

The International Commission on Non-Ionising Radiation Protection (ICNIRP) is currently revisiting its recommendations of 1998 to see whether any changes are necessary. ICNIRP is a commission of the World Health Organisation (WHO).

Leukaemia link unclear: In Section III which dealt with the review of epidemiological literature on EMF and health, with respect to childhood leukemia, the Commission found that: "There is no clear evidence of a relationship between childhood leukaemia and residential EMF exposures among children with estimated exposure levels under 0.4 microtesla. A two-fold increase in relative risk of childhood leukaemia, confined to a very tiny fraction of children (estimated as 0.8 percent in one large pooled analysis) with residential EMF exposure greater than or equal to 0.4 microtesla, is difficult to interpret in the absence of a known biological mechanism or reproducible experimental support of carcinogenesis."

Selection bias in data? "There is also some evidence to suggest that selection bias may account for some of the increase in risk among the proportion of children with high residential

EMF exposure. In the absence of new and convincing experimental evidence linking EMF with carcinogenesis, additional epidemiological studies are unlikely to provide further clarification of the relationship unless large numbers of cases with exposures greater than or equal to 0.4 microtesla can be accrued, and methodological shortcomings, particularly selection bias, can be minimized."

ALS risk to electrical workers? The possibility of a risk of amyotrophic lateral sclerosis (ALS) from EMF for workers in the electrical industries is mentioned in this review: "...the ALS results are intriguing and point to a possible risk increase in subjects with EMF exposure. However, confirmatory studies are needed as is an appropriate consideration of confounding, for example, from electric shocks as a conceivable explanation."

Not enough studies for confirmation: Part of the overall discussion of the report states: "In the absence of evidence from cellular and animal studies, and given the methodological uncertainties and in many cases inconsistencies of the existing epidemiological literature, there is no chronic disease outcome for which an aetiological (causal) relation to EMF exposure can be regarded as established."

Incorporating new scientific work: ICNIRP are now in the process of reviewing their ELF guidelines to take into account the scientific work that has occurred since the current exposure guidelines of 1998 were formulated.

ENA downplays findings of relationship between EMF exposure and childhood cancer, particularly leukaemia

Due to some restructuring of responsibilities between the Energy Supply Association of Australia (esaa) and the industry sector associations, the EMF Program was transferred to the Energy Networks Association (ENA) from January 2006.

Top positions unchanged: The Program is continuing as before with Kevin Nuttall of ENERGEX Ltd as the Chairman of the ENA EMF Committee. Michael Kilgariff, the Director Industry and Technical Policy, is responsible for the Program within ENA and Richard Hoy, the former EMF Program Manager in esaa, continues in this role as a consultant to ENA.

Check website: Following on from this transfer, EMF information for the public is now being made available on the ENA web site at <http://www.ena.asn.au>.

Scientific workshops: Three EMF Scientific Workshops have been held since the last EMF Update, two arranged by esaa and one by ENA. These workshops have provided an opportunity for EMF researchers and those interested in research to discuss the latest work in hand.

Frequencies, mobiles and health: As well as power frequency EMF and health matters, there has also been discussion of work in the area of health effects related to mobile phone usage.

No evidence for causal relationship: More recent reviews have accepted the view of a possible increased risk of childhood leukaemia but not a proven causal relationship as the laboratory studies do not provide a mechanism for EMF to induce any form of cancer. ENA recognizes that the EMF/health issue is one of genuine concern to the community which is best served by informed discussion of the total body of the science rather than selective and biased reporting.

Be prudent: Until the science becomes more certain, ENA will continue to advise its members to operate their electricity systems “prudently” within the guidance of the relevant Australian health authorities.

Contacts: Kevin Nuttall, Chairman, ENA EMF Committee, ENERGEX Ltd; Richard Hoy, EMF Consultant, Energy Networks Association

AER guidelines for regulating transmission businesses under new electricity rules

The Australian Energy Regulator on 13 January issued proposed guidelines and accompanying explanatory statements to assist with its regulation of electricity transmission network businesses.

Scope for public comment: The guidelines have been issued for public comment, as required under the new National Electricity Rules.

Finalisation by 30 September: The AER will conduct a public consultation process on these proposed guidelines, with a view to finalising the guidelines by 30 September 2007.

The proposed guidelines: relate to:

- the post-tax revenue model;
- the roll forward model;
- an efficiency benefit sharing scheme;
- a service target performance incentive scheme;
- submission guidelines; and
- cost allocation guidelines.

Guidelines online: A copy of each of the proposed guidelines and explanatory statements and related material will be available from the AER's website. <http://www.aer.gov.au/content/>

Mixed signals for embedded gen, complain users: large gen gets benefits, barred to small

E mbedded generators can reduce costs by using consumers' wires according to the Major Energy Users (MEU). The

MEU said rules on embedded generation have been used by some to the detriment of consumers. For example:

- where large generation was connected to the distribution network to get benefits;
- not available to the same sized generation, connecting directly to the transmission network.

“Such an approach allows the embedded large generation to get TUoS (time of use tariff) benefits and to save capital costs by using distribution and transmission assets paid for by consumers”.

Reference: 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, P. 38. This working paper is available at <http://www.mce.gov.au/assets/documents/mceinternet/Major%5FEnergy%5FUsers%5FInc20070130123507%2Epdf>

NSW complaints rise: as retailers, distributors blame each other, at customer cost

Customers did not appreciate being told by their retailer that 'we aren't responsible – you should call your distributor and, if you don't have the number, look in the Yellow Pages', or by their distributor that they should call their retail, said the NSW Energy and Water Ombudsman.

Not good enough: Clarity in the relationships between customers, retailers and distributors must be a fundamental consideration ... as confusion in this area gives rise to complaint, delay and dissatisfaction for all parties, noted the NSW Energy and Water Ombudsman (EWON) in response to the *Retail Policy Working Group National Framework for Distribution and Retail Regulation Working Paper 2*.

Service failures hit customers hard: In EWON's experience, service failures in the interface between the three (customers, retailers and distributors) have a particularly noticeable impact on customers, including those in vulnerable circumstances.

100 complaints a day: On any given day EWON receives 100 or more contacts from customers, most of whom wish to raise a complaint about a retail or distribution problem they face.

Customer rights confusion: "Our experience suggests that while the issues raised by these complaints are enormously varied, the causes can generally be distilled as:

- failures in communication; and
- failures in customer service.

"Not infrequently, these problems arise from a lack of clarity regarding the relative rights and responsibilities of the distribution and retail businesses, and of their customers.

Customers not impressed: Customers tell us repeatedly that in their dealings with energy service providers, they look for:

- simplicity, reliability and clarity;
- Customers have an expectation that any queries or concerns they raise with their retailer or their distributor will be taken up straight away; and
- if a referral to the other party is required, it is done immediately and appropriately.

Reference: Energy and Water Ombudsman NSW, Response to Retail Policy Working Group National Framework for Distribution and Retail Regulation Working Paper 2, 29 January 2007, P. 1-5. Contact: Brendan French, Deputy Ombudsman, on 02 8218 5251.