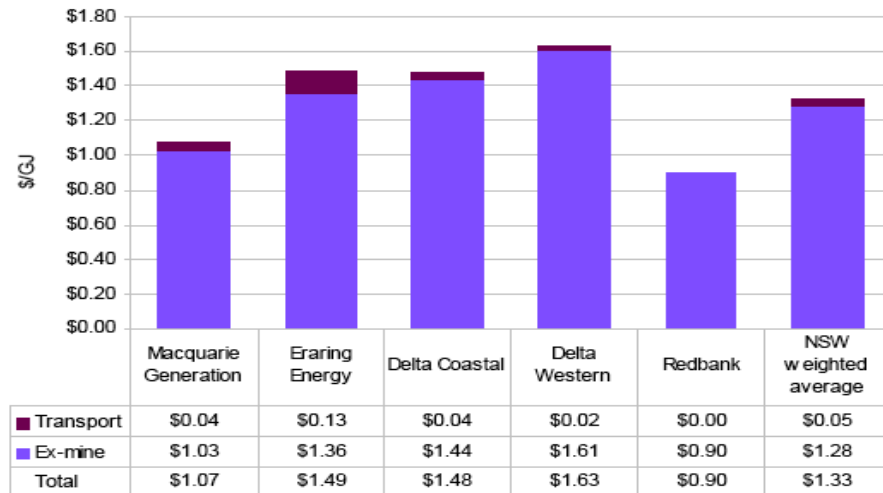


Qld - NSW grid upgrade - \$800m; but import
Gas for gen, only \$500-600 million, p4
Price falls as Vales-2, Kogan Creek online, p3

NSW generator coal costs



LEFT: Estimated weighted average prices for the NSW generators in 2005/06 (in 2005/06 dollars). Fuel resource, new entry angeneration costs in the NEM Report 2 – Data and documentation, Draft prepared for NEMMCO, 27 March 2007, ACIL Tasman.

Data source: ACIL Tasman analysis

Bankers back-off coal: Once CO₂ trades above \$10.00/t, CSM-CCGT plant, the lowest-cost base-load, in NSW

1 Debt and equity markets would not fund a NSW coal plant using conventional super critical technology, under threat of CO₂ pricing, said Paul Simshauser, Chief Executive Officer, Babcock & Brown Power. He told Owen, "IES modelling showed it was clear that the next increment of base plant in NSW

was expected to be gas-fired rather than coal on a least cost basis. Based on 26 June 2007 estimates of new plant costs, this included the rise on costs for new coal.

Unexpected: This result was unexpected in the absence of CO₂ pricing, as evidenced by BBP's own cost estimates. But the IES view was confirmed by engineering firm SKM, which presented findings of plant costs in the NEM at the UBS Infrastructure Conference in Sydney on Tuesday 26 June 2007. SKM explained;

- that the primary driver for this change in the economics of new plant has been

comparative (and very substantial) increase in the capital cost of coal plant - the same view formed by IES;

- BBP's view was that even if changes to plant capital costs were a short term anomaly and coal returned to the lowest cost position (as per ACIL), the prospect of new entrant coal-fired generation investment in the near term remains highly unlikely.

How to cost coal v gas: The logic underlying this outcome, was;

- by 2011, CO₂ emissions will carry a price.;
- once CO₂ trades above \$10.00/t, CCGT plant will become the lowest cost base-load application in New South Wales in any event;
- CO₂ was trading at €21.70 (circa AUD36.00) in Europe;
- it was not hard to imagine CO₂ trading above \$10.00/t in Australia.

Bankers run for the door: "Once investors price in such costs, and make allowance for potential increases over time, this is likely to

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Fax: +612 9818 8473. Editor: Laurel Fox-Allen.

Top price for NEM week 448: Mt Stuart, QLD at \$633.74

ewn publishing

2

| TAS | | | |
|-------------------|-------------|--------------|-----------------|
| Generator | Income (\$) | Output (MWh) | Av Price (/MWh) |
| Liap/Way/Cat | \$1,372,127 | 11,572 | \$118.58 |
| Bell Bay Power | \$2,845,719 | 27,156 | \$104.79 |
| John Butters | \$1,138,217 | 8,179 | \$139.17 |
| Tungatinah | \$608,995 | 4,089 | \$148.95 |
| Poatina | \$2,566,232 | 19,163 | \$133.91 |
| Tarraleah | \$1,110,322 | 10,375 | \$107.01 |
| Reece | \$1,781,932 | 13,727 | \$129.81 |
| Cethana | \$890,791 | 6,797 | \$131.06 |
| Tribute | \$252,488 | 1,441 | \$175.26 |
| Lemonthyme/Wilmot | \$1,036,186 | 8,882 | \$116.66 |
| Trevallyn | \$1,429,528 | 12,956 | \$110.34 |
| Mackintosh | \$716,268 | 5,746 | \$124.65 |
| Bastyan | \$779,390 | 6,169 | \$126.35 |
| Woolnorth Wind | - | - | - |
| Gordon | \$5,279,491 | 47,488 | \$111.18 |
| Vic->Tas | \$3,795,698 | 43,372 | \$87.52 |
| Devils Gate | \$629,934 | 4,806 | \$131.08 |
| Fisher | \$316,914 | 2,677 | \$118.39 |
| Meadowbank | 235520.6193 | 2006.35 | \$117.39 |
| Lake Echo | - | - | - |
| Repulse | - | - | - |
| Paloona | - | - | - |
| Cluny | - | - | - |

render any future coal based investments uneconomic. IES also undertook separate market modelling. This showed that in 2013 both gas plant and coal plant were economic and that the economics of these plants types was close, on a market basis.

However, with a carbon tax of \$10.00/t or more, a gas plant was clearly more economic than coal plant.

Reference: Babcock & Brown Power, Level 23 The Chifley Tower, Sydney NSW Australia, Dr Paul Simshauser, Chief Executive Officer, Phone: 61292291800 <http://www.bbpower.com> 29 June 2007

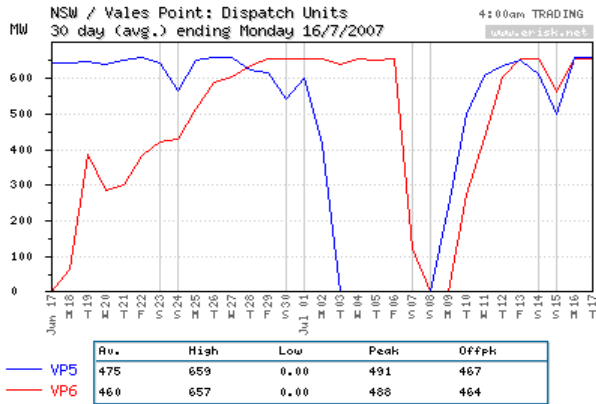
| SA | | | |
|------------------|-------------|--------------|-----------------|
| Generator | Income (\$) | Output (MWh) | Av Price (/MWh) |
| North'n Power | \$8,769,362 | 89,690 | \$97.77 |
| Ladbroke | \$142,408 | 932 | \$152.76 |
| Osborne | \$2,658,163 | 26,741 | \$99.41 |
| Pelican Pt | \$6,300,786 | 62,164 | \$101.36 |
| Torrens Is. B | \$8,284,777 | 75,423 | \$109.84 |
| Vic->SA | \$794,358 | 7,511 | \$105.76 |
| MLink->SA | \$14,877 | 174 | \$85.65 |
| Torrens Is. A | \$1,242,252 | 11,050 | \$112.42 |
| Mintaro | \$45,629 | 212 | \$215.43 |
| Dry Creek | \$93,103 | 454 | \$204.93 |
| Playford | \$1,946,454 | 20,191 | \$96.40 |
| Snuggery | \$4,629 | 19 | \$247.66 |
| Pt Lincoln | - | - | - |
| Quarantine | - | - | - |
| Angaston Power | \$48,468 | 207 | \$234.51 |
| Hallett Power | \$179,287 | 1,003 | - |
| Lonsdale | - | - | - |
| Terminal Storage | - | - | - |
| Lake Bonney Wind | - | - | - |

| VIC | | | |
|-----------------|--------------|--------------|-----------------|
| Generator | Income (\$) | Output (MWh) | Av Price (/MWh) |
| Loy Yang A | \$31,820,435 | 320,673 | \$99.23 |
| Loy Yang B | \$17,528,716 | 176,338 | \$99.40 |
| Hazelwood | \$21,875,659 | 219,358 | \$99.73 |
| Yallourm | \$21,018,114 | 211,376 | \$99.43 |
| Anglesea | \$2,663,445 | 26,785 | \$99.44 |
| Energy Brix | \$2,056,320 | 20,625 | \$99.70 |
| Newport | \$3,676,444 | 29,408 | \$125.02 |
| MLink->Vic | \$422,225 | 3,779 | \$111.74 |
| SA->Vic | \$1,106,558 | 10,565 | \$104.74 |
| Snowy->Vic | \$6,610,204 | 67,061 | \$98.57 |
| Tas->Vic | \$1,473,137 | 7,236 | \$203.59 |
| Jeeralang | \$279,854 | 1,615 | \$173.26 |
| West Kiewa | \$601,856 | 4,747 | \$126.78 |
| Bairnsdale | \$1,348,119 | 12,651 | \$106.56 |
| Dartmouth | - | - | - |
| Eildon | \$22,862 | 88 | \$259.06 |
| Hume Vic | - | - | - |
| McKay Power | \$896,954 | 5,369 | \$167.08 |
| Clover | - | - | - |
| Valley Power | \$2,331,046 | 17,691 | \$131.77 |
| Rubicon | - | - | - |
| Laverton North | 808675.1595 | 5432.23 | - |
| Somerton Power | 122765.8383 | 1197.355 | - |
| Sunshine Energy | - | - | - |
| Longford | - | - | - |

| NSW | | | |
|------------------|--------------|--------------|-----------------|
| Generator | Income (\$) | Output (MWh) | Av Price (/MWh) |
| Bayswater | \$36,648,825 | 354,743 | \$103.31 |
| Liddell | \$22,724,611 | 240,995 | \$94.30 |
| Mt Piper | \$18,560,442 | 188,092 | \$98.68 |
| Wallerawang | \$14,353,157 | 143,158 | \$100.26 |
| Vales Point | \$11,079,547 | 136,716 | \$81.04 |
| Munmorah | \$6,450,463 | 64,202 | \$100.47 |
| Eraring | \$42,185,174 | 415,683 | \$101.48 |
| Redbank | \$2,404,311 | 24,701 | \$97.34 |
| Smithfield | \$1,985,107 | 19,465 | \$101.98 |
| Snowy->NSW | \$13,904,021 | 60,281 | \$230.65 |
| Shoalhaven | \$355,061 | 2,617 | \$135.68 |
| Hunter Valley | - | - | - |
| Hume Hydro | - | - | - |
| Blowering | - | - | - |
| Northern Gas | - | - | - |
| Burrinjuck | - | - | - |
| Brown Mountain | - | - | - |
| Keepit | - | - | - |
| Broken Hill | - | - | - |
| Ergon Energy | - | - | - |
| DL Q->N | \$1,264,359 | 12,866 | \$98.27 |
| QLD->NSW | \$10,569,360 | 107,250 | \$98.55 |
| Pindari Hydro | - | - | - |
| West Nowra | - | - | - |
| Country En (NSW) | - | - | - |

| QLD | | | |
|------------------|--------------|--------------|-----------------|
| Generator | Income (\$) | Output (MWh) | Av Price (/MWh) |
| Kogan Creek | \$5,124,425 | 71,065 | \$72.11 |
| Tarong | \$11,050,335 | 116,735 | \$94.66 |
| Millmerran | \$11,582,109 | 134,258 | \$86.27 |
| Swanbank | \$3,241,326 | 32,115 | \$100.93 |
| Stanwell | \$17,666,811 | 197,116 | \$89.63 |
| Callide B | \$9,044,187 | 100,848 | \$89.68 |
| Callide Power | \$12,626,896 | 142,098 | \$88.86 |
| Townsville | \$2,604,789 | 26,981 | \$96.54 |
| Gladstone | \$19,038,758 | 201,927 | \$94.29 |
| Collinsville | \$1,191,132 | 11,417 | \$104.33 |
| Swanbank C. D. E | \$4,577,664 | 47,597 | \$96.18 |
| Barcaldine | \$7,646 | 61 | \$124.89 |
| Callide A | - | - | - |
| Kareeya | \$806,880 | 7,501 | \$107.57 |
| Barron Gorge | \$587,807 | 5,163 | \$113.85 |
| Mt Stuart | \$207,152 | 327 | \$633.74 |
| Wivenhoe | \$2,331,555 | 24,592 | \$94.81 |
| Braemar Power | \$4,503,739 | 37,329 | \$120.65 |
| Mackay | - | - | - |
| Roma | \$130,275 | 250 | \$521.93 |
| Oakey | \$28,085 | 130 | \$215.45 |
| DL N->Q | \$728 | 7 | \$107.99 |
| NSW->QLD | \$17,860 | 168 | \$106.27 |
| Rocky Point | - | - | - |
| Tableland | - | - | - |

2 Vales units online



NEM price falls as Delta brings Vales-2 660MW back, and Kogan Creek now at 500MW

What a difference a little generation makes. For the past calendar year to date - with costs of about \$16/MW - NSW generators had earned a pool price of \$126/MWh. The pool price began to fall - despite the low temperatures - as Delta ramped up its 660MW Vales Point Unit Two. It had been off line since early this year; the Vales unit one was then due to go offline in September. In Queensland - Kogan Creek was now fully online with 500MW.

the week in detail

Week to Saturday, 14 July: \$87.63-\$107.88/MWh: Average prices rose 11-53 per cent to a range of \$87.63-\$107.88/MWh as all regions registered much higher spikes than the previous week. Colder weather in all the NEM capitals resulted in maximum demand rising 1274MW (4.1 per cent) to 32,194MW, with increases in all regions.

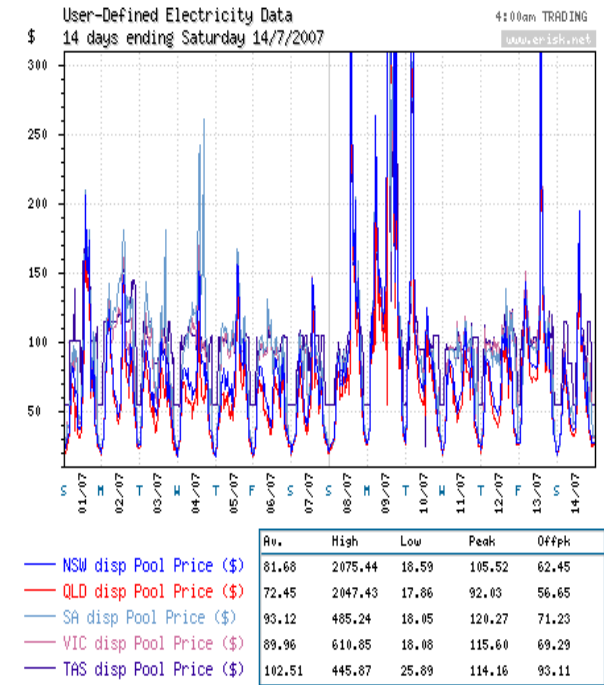
Top price of the week was the \$2075.44/MWh in NSW for the 30-minute trading interval ended 1800EST on Monday. Tasmania had the week's highest average price and Queensland the lowest.

Major events of week: Tasmania set a winter demand record of 1753MW on Tuesday when Hobart's minimum temperature dropped to 1 degree. This broke the previous record of 1744MW, set on 20 June, by 9MW, and was the third Tasmanian winter record this year, with the 1740MW on 18 June breaking the record of 1718MW set on 27 June 2005.

Monday saw a record 44 consecutive days of spikes in NEM regions, breaking the 43 straight days set between 21 July and 1 September inclusive in 2000. An actual lack of reserve level one (LOR1) was declared in NSW on Monday from 1800EST, a day which saw changing low reserve condition (LRC) forecasts for the region with a reserve shortfall of up to 678MW.

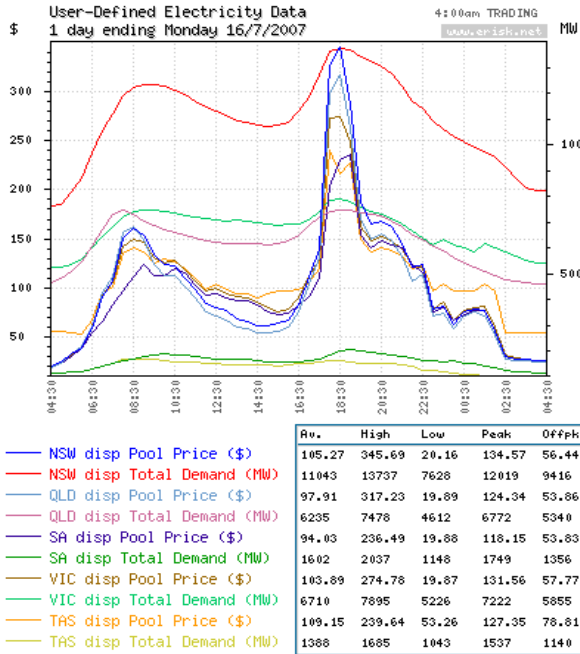
On Friday, NEMMCO increased the mainland raise regulation frequency control ancillary services (FCAS) from 250MW to 400MW between 0645EST and 0730EST to control frequency and maintain a time error within frequency standards.

On Saturday it increased mainland raise regulation FCAS from 130MW to 300MW for the same



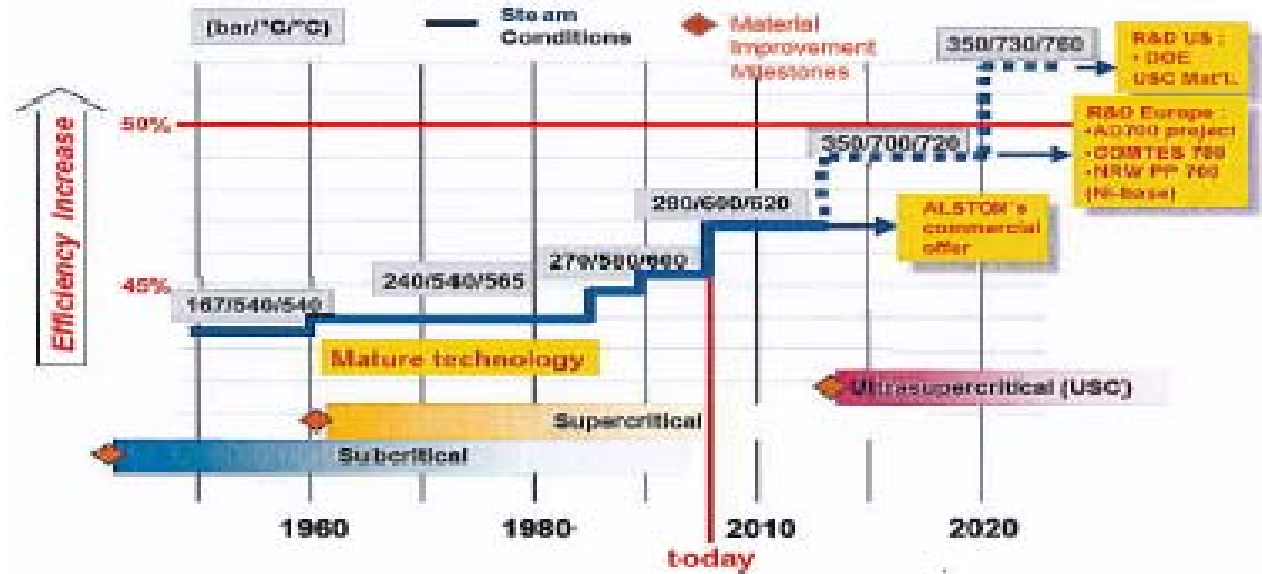
reasons, making an increase to 200MW between 1715EST to 1725EST and to 300MW from 1725EST to 1825EST. On Saturday, a transformer outage at Mudgeeraba in Queensland between 0555EST and 0700EST threatened to cut transfer limits on the Terranora interconnector between NSW and Queensland.

During the week NEMMCO made 77 declaration of non-conformity by generators over rebids not received - 24 in NSW, 18 in Queensland, 14 in Victoria, 12 in South Australia, 8 in Tasmania and 1 in Snowy.



More demand records: On Monday, 16 July, NSW used 13,825 megawatts, easily surpassing the previous record set on 27 June. Consumption on the the NSW grid, and the national grid rose to a record 33,467MW on 19 July. The frigid temperatures broke new ground, as Sydney experienced its coldest night for the month in 21 years on 17 July, with -3.4 degree C recorded in Richmond and 3.7 in the CBD. On the same day, Melbourne recorded its coldest temperature in nine years. On 18 July Queensland followed suite with a recording of -0.1 degree C, the lowest-ever reading for Brisbane Airport. Separate blackouts were triggered in Sydney suburbs on each day of the 16-18 July period. EnergyAustralia reported outages in 12 suburbs on Monday, including an incident that affected 1600 homes within North Sydney. On Tuesday, 17 July, 1400 North Shore residencies were left without electric heating due to a 2-hour blackout blamed on the effects of water from last month's deluge seeping into cable joints. On Wednesday evening, a 90-minute

Alstom NSW baseload options include USC coal-fired plant



blackout hit services at the Children's Hospital in Westmead as power was lost in the emergency department and staff could not access patient records while floodlights were brought in to illuminate the waiting room. Gas demand in Victoria surged to its highest level ever on Tuesday. Demand on 17 July was 35 per cent above the average during a winter day, up to 1,270 terajoules. Gas blackouts were reported in some parts of Melbourne.

Qld -NSW grid upgrade-\$800M; import gas for gen, only \$500-600 million

The APA Group Submission to the Review of New South Wales Electricity Supply conducted by Professor Anthony Owen said gas was a cheaper was to deliver

ABOVE: Coal-fired steam power, but better: The "ultra-supercritical" (USC) coal-fired plant was a continuing evolution of existing coal fired steam plant technology. It was based around the long proven "Rankine" steam cycle, with steam pressures and temperatures progressively increased to boost cycle efficiency. Subcritical base load coal plant from the 1970s-80s era currently installed in NSW typically has stema temperatures in order 540 degrees C and an efficiency in the order of 35 per cent. Supercritical plants are installed over the last 10 years aaround the world usually had steam temperatures in order of 560-570 per cent and efficiencies around 38-39 per cent. The latest offerings from Alstom typically had steam temperatures in order of 600-620 degrees C and corresponding cycle efficiencies of 42-43 per cent. Submission to NSW Govt Inquiry into Electricity Supply, Chris Raine, Alstom President of Australia and NZ, 29 June 2007, PO Box 319, North Ryde NSW 1670, <http://power.alstom.com>

electricity to NSW - about 50 per cent cheaper. The APA internal analysis argued gas transmission had lower capital costs than electricity transmission per unit and gas was more reliable and steady.

The QNI example: The APA analysis depended on specific issues such as terrain, substation cost, compressor cost, voltage and pipeline capacity. However, for example, APA calculated;

- to import an additional 1000 MW into New South Wales would require up to \$800 million of additional electricity transmission capital.
- to import the gas to generate 1000 -1300 MWm would require capital costs for gas transmission of \$500-600 million.

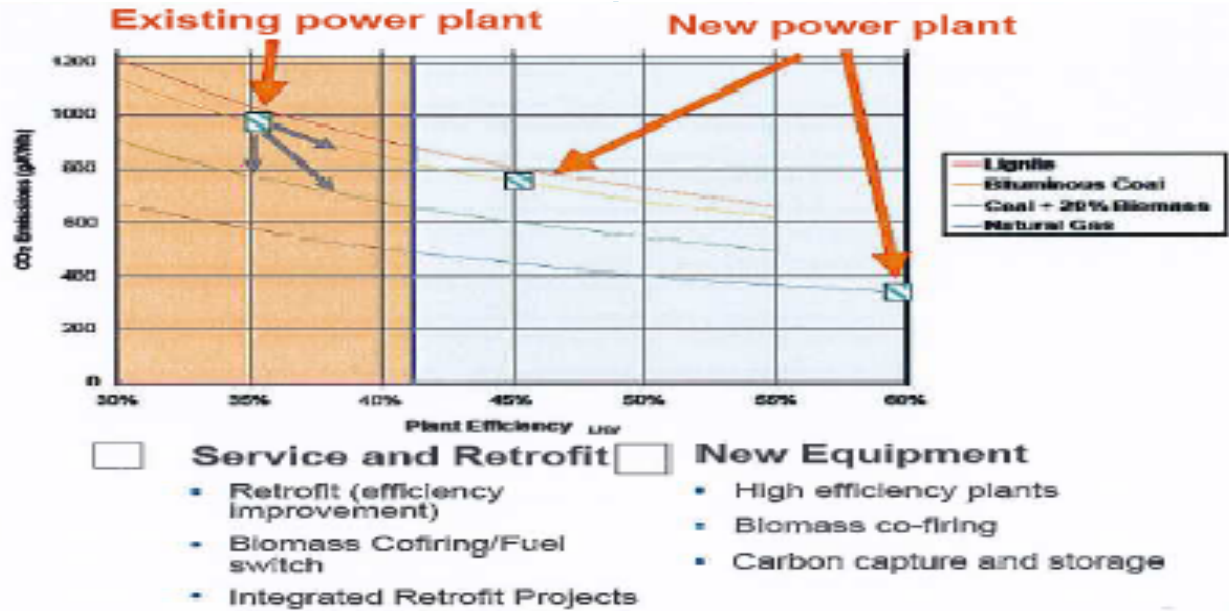
Losses, versus constraints and outages

The APA paper argued "Electricity transmission may have thermal and dynamic constraints at certain points on the transmission system. For example APA understands that the QNI which links New South Wales and Queensland can only flow approximately 1100MW in 2007. But APA said it "does not have sufficient knowledge of the New South Wales grid to make any comment as to whether other such constraints are a material consideration for the current inquiry," but said gas losses were less than electricity losses and happened less often.

Gas more economic, argues APA: APA told the *Owen Enquiry*.

- electricity transmission is subject to margin

Coal + CO2 dumps the way to negawatts, argues Alstom



loss factors, these loss factors represent the physical line losses between the power station and the load;

- loss factors were an additional cost on the cost of electricity transmission; and
- above-ground electricity transmission was subject to outages due to weather. Gas pipe better than an electricity line: "Gas transmission is usually subject to minimal losses and minimal outages APA believes this position is generally borne out by the replacement costs assessed by the energy regulator for various gas and electricity transmission assets. APA argued.

NSW CO2 dump plan: Biomass co-firing with coal with wood waste, various agricultural wastes and bagasse. A mixture of such biomass can lower the CO2-e of a plant ..Additionally, where carbon capture and storage is installed on the back end of a power plant, it would be possible to have a power plant with a "negative" CO2-e intensity ie: the power station would be taking CO2 out of the atmosphere and sequestering it underground. Biomass Co-firing could either be designed into a new plant or retrofitted onto an existing plant.

Submission to NSW Govt Inquiry into Electricity Supply in NSW, Chris Raine, Alstom President of Australia and New Zealand, 29 June 2007.,PO Box 319, North Ryde NSW 1670, Ph: (02) 8870 6000, Fax: (02) 8870 6005, <http://power.alstom.com>

Electricity transmission costs more:

"Overall, electricity transmission from power generated interstate is likely to result in avoidable line losses, incur higher capital costs (depending on the specific project), and may be subject to a degree of temporary regulatory uncertainty compared to a gas pipeline with a regulatory exemption. In addition, reliance on interstate generated power may result in some loss of policy control for New South Wales. If gas fired generation is selected, gas transmission is likely to be more economic than in situ generation and electricity transmission".

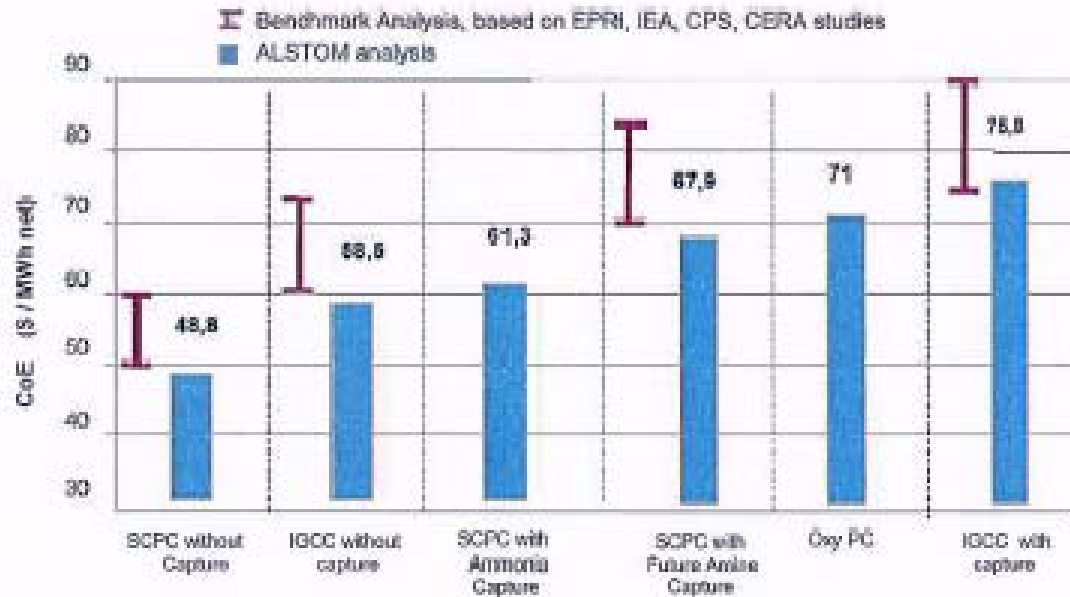
Reference: APA Group Submission to the Review of New South Wales Electricity Supply Being Conducted by Professor Anthony Owen 29 June 2007 , 8/7/2007

APA says gas economic for new gen in NSW at \$15- \$25/t CO₂: and gas fired gen NGACs \$9/MWh for a new entrant combined cycle gas turbine

6

Gas pipeline player APA, in a submission to the Review of New South Wales Electricity Supply by Professor Anthony Owen, said "Until the policy position in relation to emissions trading is known with certainty there are doubts surrounding the economics of coal fired generation, particularly for new generation,

Alstom seeks CO₂ dump subsidies to sell its technology



and particularly for the longer term.

New entrant combined cycle gas turbine: APA viewed lower emission gas as the best alternative in the short to medium (until "clean coal" or other "low" emissions technologies become commercially viable anticipated beyond 2020).

Gas trigger is \$15- \$25/t CO₂:"It is generally accepted that gas fired generation requires as little as \$15- \$25/t CO₂ equivalent to be competitive with conventional coal fired generation. It is worth noting that gas fired generation already benefits from

Need for CO₂ dump hole: CO₂ storage potential may have an influence on the siting of any base load power station, according to Alstom. The NSW Government may wish to support the development of CO₂ dumps to bolster the NSW coal export industry. If the Government wished to accelerate the development and implementation of carbon capture and storage technology ahead of "market requirements" driven by the national carbon trading market, Alstom said the Government would need to provide funding to private developers to implement CO₂ dumps on a demonstration basis.

Submission to NSW Govt Inquiry into Electricity Supply in NSW, Chris Raine, Alstom President of Australia and New Zealand, 29 June 2007.,PO Box 319, North Ryde NSW 1670, Ph: (02) 8870 6000, Fax: (02) 8870 6005, <http://power.alstom.com>

environmental subsidies such as NGAC currently worth in the order of \$9/MWh for a new entrant combined cycle gas turbine. Therefore gas fired generation is well placed to be a transitional fuel from current conventional coal fired generation. Carbon dioxide equivalent emissions for different fuel types and for station configurations were:

- combined cycle gas turbines - 0.35-0.45 Tonnes CO2 equivalent per MWh
- black coal (conventional pulverised fuel) fired power station - 0.9-1.1 Tonnes CO2 equivalent per MWh

"The economics of power generation does not currently consider uncoded externalities, such as emissions. Recent policy moves towards carbon emissions trading appear certain to internalise the previously uncoded externalities associated with generation. This will consequently increase the costs of coal fired generation".

Reference: APA Group Submission to the Review of New South Wales Electricity Supply Being Conducted by Professor Anthony Owen 29 June 2007

SA transfers 50,815 small electricity customers in June

South Australian transferred a total of 50,815 small electricity customers in the June quarter, figures released by the National Electricity Market Management

Company (NEMMCO) show. This was the highest of the three completed quarters since NEMMCO took over compiling the statistics, The NEMMCO figures, which use national meter identified (NMI) totals, replaced the figures previously put out by the Essential Services Commission (ESCOSA) from October 2006.

800 rise on previous quarter: The June quarter total was up 800 (1.6 per cent) on the March quarter total of 50,015 and up 3206 (6.7 per cent) on the 47,609 total in the December quarter. Same definition of small customer: While both NEMMCO and ESCOSA defined a small electricity customer as using less than 160MWh a year, the ESCOSA figures referred to the number of completed small customer transfers to a market contract for electricity either with AGL SA or an alternative retailer for each month.

Large electricity customers: Another difference in the two sets of figures is that NEMMCO estimates transfers of large electricity customers on a monthly basis while ESCOSA did not provide these figures.

Large customer transfers down: The 77 transfers of large electricity customers in South Australia in the June quarter were down 153 (66.5 per cent) on the 230 in the March quarter and down 17 (18.1 per cent) on the December quarter.

Comparison of quarters; The following table shows the quarterly movements since

NEMMCO began issuing the figures:

| Quarter | Small customers | Large customers | Combined total at end of quarter |
|---------------|-----------------|-----------------|----------------------------------|
| June 2007 | 50,815 | 77 | 538,485 |
| March 2007 | 50,015 | 230 | 487,593 |
| December 2006 | 47,609 | 94 | 437,348 |

Reference: National Electricity Market Management Company (NEMMCO) MSATS (market settlement and transfer solutions) retail transfer statistical data for customers in South Australia for June 2007. 10 July 2007. Address: Level 16, 461 Bourke Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. <http://www.nemmco.com.au>

SA transfers ease in June, dropping 3306 (16.7pc) on May peak

Transfers of small South Australian electricity customers in June dropped by 3306 (16.7 per cent) on the 19,766 in May, figures released by the National Electricity Market Management Company (NEMMCO) show.

May highest month of NEMMCO figures: The 19,766 transfers of small electricity customers in May was the highest since NEMMCO took over compiling the statistics last October.

NMI totals used: The NEMMCO figures, which use national meter identified (NMI) totals, replaced the figures previously put out by the Essential Services Commission (ESCOSA)

from October 2006.

Fourth highest since October: The June 2007 transfers were the fourth highest of any month since NEMMCO began issuing the figures - behind the 17,044 in January 2007, 16696 in March 2007 and the 19,766 in May.

29 large customer transfers in month: Transfers of large electricity customers at 29 was up six (26.1 per cent) on the 23 at the end of May. At the end of June, transfers of large electricity customers totalled 3233.

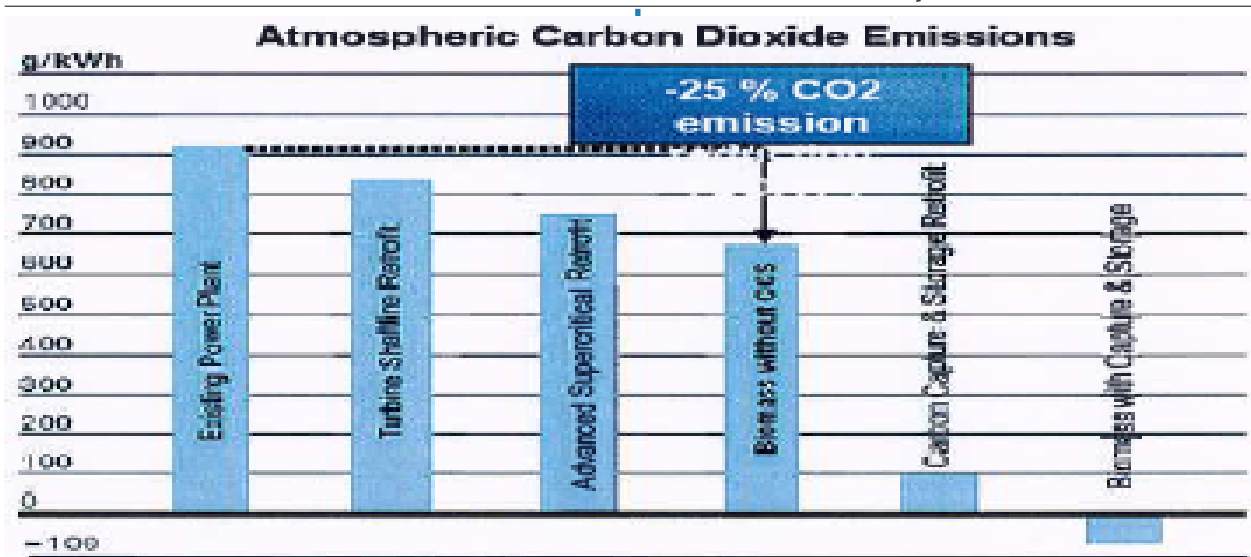
Combined total now 538,485: The combined total of small and large electricity customers at the end of June was 538,485.

Same definition of small customer: While both NEMMCO and ESCOSA defined a small electricity customer as using less than 160MWh a year, the ESCOSA figures referred to the number of completed small customer transfers to a market contract for electricity either with AGL SA or an alternative retailer for each month.

Includes large electricity customers: Another difference in the two sets of figures is that NEMMCO estimates transfers of large electricity customers on a monthly basis while ESCOSA did not provide these figures.

Breakdown of transfers: The following table shows the latest figures supplied for small and large electricity customer transfers by NEMMCO for South Australia

Alstom mulls chilled ammonia to cut CO2 at power stations



| Month | Small customer transfers | Progressive | Large customer transfers | Progressive | Total all customers |
|----------------|--------------------------|-------------|--------------------------|-------------|---------------------|
| September 2006 | - | 386,813 | - | - | 389,645 |
| October 2006 | 15,396 | 402,209 | 24 | 2856 | 405,065 |
| November 2006 | 16,458 | 418,667 | 36 | 2892 | 421,559 |
| December 2006 | 15,755 | 434,422 | 34 | 2926 | 437,348 |
| January 2007 | 17,044 | 451,466 | 159 | 3085 | 454,551 |
| February 2007 | 16,275 | 467,741 | 35 | 3120 | 470,861 |
| March 2007 | 16,696 | 484,437 | 36 | 3156 | 487,593 |
| April 2007 | 14,589 | 499,026 | 25 | 3181 | 502,207 |
| May 2007 | 19,766 | 518,792 | 23 | 3204 | 521,996 |
| June 2007 | 16,460 | 535,252 | 29 | 3233 | 538,485 |

Reference: National Electricity Market Management Company (NEMMCO) MSATS (market settlement and transfer solutions) retail transfer statistical data for customers in South Australia for June 2007. 10 July 2007. Address: Level 16, 461 Bourke Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. <http://www.nemmco.com.au>

Less power consumption with ammonia: Alstom was undertaking development of several options for post-combustion capture of CO2 using chemical processes from coal-fired power plant flue gas streams, including: Amine-based Absorption Processes (such as MEA or MDEA), which involved upscaling of amine-based absorption processes currently used in the oil and gas industry to a size suitable to handle the large scale of power plant flue gas flows; Frosting, a longer term development which would provide for a flexible and easily retrofittable solution, although the challenge here was to reduce the anticipated high capital cost; and the Chilled Ammonia Process, a post-combustion carbon capture technology Alstom is developing, using ammonia instead of amines to absorb CO2, thus offering lower costs of reagents, significantly lowering energy consumption and a better tolerance to flue gas contaminants, making it suited to CO2 capture in power industry applications. Chris Raine, Alstom President of Australia and New Zealand, 29 June 2007., PO Box 319, North Ryde NSW 1670, Ph: (02) 8870 6000, Fax: (02) 8870 6005, <http://power.alstom.com>

855 (81.7pc) jump in Qld large electricity customer transfers in 2006/07 to 1901

Transfers of large Queensland electricity customers in 2006/07 jumped 855 (81.7 per cent) to 1901 compared to 1046 in the 2005/06 financial year, the latest transfer statistics issued by the National Electricity Market Management Company (NEMMCO) show.

Monthly range from 68 to 352 in 2006/07: In 2006/07, the monthly totals ranged from a low of 68 to a high of 352, while in 2005/06 the range was from a low of 33 to a high of 345.

Biggest months for transfers: The three biggest months for transfers in 2006/07 were June, July and January while in 2005/06 they were July, January and August.

Monthly comparisons of two financial years: The following table compares transfers on a monthly basis in 2006/07 and 2005/06

| Month | 2006/07 total | 2005/06 total |
|--------------|---------------|---------------|
| July | 261 | 345 |
| August | 116 | 70 |
| September | 87 | 46 |
| October | 174 | 63 |
| November | 182 | 63 |
| December | 150 | 46 |
| January | 224 | 172 |
| February | 85 | 42 |
| March | 68 | 67 |
| April | 105 | 52 |
| May | 97 | 47 |
| June | 352 | 33 |
| Total | 1901 | 1046 |

Reference: National Electricity Market Management Company (NEMMCO) retail transfer statistical data for large Queensland customers for June 2007. 10 July 2007. Address: Level 16, 461 Bourke Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. <http://www.nemmco.com.au>

June quarter transfers of large Qld electricity customers soar 46.9pc to 554; as new rules enforce peak price-pass-through for non-switchers

June quarter transfers of large electricity customers in Queensland rose 177 (46.9 per cent) to 554, the latest transfer

statistics issued by the National Electricity Market Management Company (NEMMCO) show.

June total nearly equal to March quarter: The figures show that the transfers in the final month of the quarter of 352 was just 20 short of the total for the March quarter of 372.

Monthly comparisons: The March quarter total was made up of 224 transfers in January, 85 in February and 68 in March, while the June quarter comprised 105 in April, 97 in May and 352 in June.

319.7pc more than June 2006 quarter: The June 2007 quarter total was up 422 (319.7 per cent) on the 132 transfers in the June 2006 quarter, when they were 52 transfers in April 47 in May and just 33 in June.

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 apply in Queensland for domestic customers using less than 160MWh a year.

Comparison of relevant quarters: The following table shows the transfers of small and large electricity customers in the June 2007 quarter, the March 2007 quarter and the June 2006 quarter:

| Quarter | Large customers |
|------------|-----------------|
| June 2007 | 554 |
| March 2007 | 372 |
| June 2006 | 132 |

Reference: National Electricity Market Management Company (NEMMCO) retail transfer statistical data for large Queensland customers for June 2007. 10 July 2007. Address: Level 16, 461 Bourke Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. http://www.nemmco.com.au

Big June jump in Qld transfers of large electricity customers to 352, up 91 (34.9pc)

June transfers of large electricity customers in Queensland at 352 were 91 more (34.9 per cent) than the next highest 2006/07 monthly total of 261 in July 2006.

255 above May total: June transfers were up 255 (262.9 per cent) on the 97 in May, the fourth lowest monthly total in 2006/07.

319 more than June 2006: The 2007 June transfers were up 319 (966.7 per cent) on the 33 in June 2006.

Only month more than 300: June was the only month in the financial years when transfers exceeded 300. July and January were the only months above 200. Five months – August, October, November, December and April exceeded 1000; with the rest under 100.

Total now 6882: At the end of the financial year transfers of large customers totalled 6882.

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 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 the 2006/07 financial year, with June 2006 figures given for comparison purposes.

| Month | Monthly transfers | Total transfers |
|----------------|-------------------|-----------------|
| June 2006 | 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 |
| February 2007 | 85 | 6260 |
| March 2007 | 68 | 6328 |
| April 2007 | 105 | 6433 |
| May 2007 | 97 | 6530 |
| June 2007 | 352 | 6882 |

Reference: National Electricity Market Management Company (NEMMCO) retail transfer statistical data for large Queensland customers for June 2007 10 July 2007. Address: Level 16, 461 Bourke Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. http://www.nemmco.com.au

Vic small electricity transfers up 621,557 (43.7pc) in 2006/07 to 2,044,831 compared to 505,636 rise in 2005/06

Transfers of Victorian small electricity customers in the 2006/07 financial year rose by 621,557 (43.7 per cent) to 2,044,831, compared to a total of 1,423,274 at the end of June 2006, according to the latest National Electricity Market Management Company (NEMMCO) transfer figures.

Higher percentage rise in 2005/06: Transfers in the 2005/06 financial year were up 505,636 (55.1 per cent) to 1,423,274 on the 917,638 at the end of the 2004/05 financial year.

Seven months over 50,000: In the 2006/07 financial year there were seven months when transfers exceeded 50,000 and five months when they exceeded 40,000. The range was from 45,909 in July 2006 to 57,831 in May 2007.

Large customer transfers up: Transfers of large electricity customers in 2006/07 increased by 3907 (20.9 per cent) to 22,565. They rose 1819 (10.8) per cent in 2005/06 to 18,658 from 16,839 at the end of June 2005.

Combined transfers total now 2,067,396: Combined transfers of small and large electricity customers in 2006/07 were up 625,464 (43.4 per cent) to 2,067,396, compared to 1,441,932 at the end of the 2005/

06 financial year.

Combined total 1,441,932 at end of 2005/06:

The 2005/06 financial year was up 507,455 (54.3 per cent) to 1,441,932 on the 934,477 total at the end of June 2005.

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.

Reference: National Electricity Market Management Company (NEMMCO) MSATS (market settlement and transfer solutions) retail transfer statistical data for customers in Victoria for June 2007. 10 July 2007. Address: Level 16, 461 Bourke Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. <http://www.nemmco.com.au>

Vic transfers of small electricity customers in June quarter drops 4656 (2.8pc) to 161,240 despite high May total

Transfers of small electricity customers in the June quarter dropped 4656 (2.8 per cent) to 161,240 compared to 165,896 in the March quarter, according to the latest National Electricity Market Management Company

(NEMMCO) transfer figures.

All months in March quarter consistent: All three months in the March quarters had totals exceeding 53,000 - 53,401 in January, 54,664 in February and 57,831 in March - a variation of 4430 between the lowest and highest month.

Volatility in June quarter months: The three months in the June quarter were more volatile at 49,025 in April, a high of 59,774 in May and 52,441 in June - a variation of 10,749 between the lowest and the highest.

Pattern similar to June 2006 quarter: The June 2007 quarter was up 25,999 (19.2 per cent) on the June 2006 quarter, which followed a similar pattern in that April was by far the lowest month and May by far the highest. The variation between the highest and lowest months in the June 2006 quarter was 11,484.

Big drop in large customer transfers: Transfers of large electricity customers in the June 2007 quarter were down on both the March quarter and the June 2006 quarter. The 230 transfers were down 343 (59.9 per cent) on the 573 in the March quarter and down 76 (25.8 per cent) on the 306 in the June 2006 quarter.

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.

Comparison of relevant quarters: The following table shows the transfers of small and large electricity customers in the June 2007 quarter, the March 2007 quarter and the June 2006 quarter:

| Quarter | Small customers | Large customers |
|------------|-----------------|-----------------|
| June 2007 | 161,240 | 310 |
| March 2007 | 165,896 | 573 |
| June 2006 | 135,241 | 306 |

Reference: National Electricity Market Management Company (NEMMCO) MSATS (market settlement and transfer solutions) retail transfer statistical data for customers in Victoria for June 2007. 10 July 2007. Address: Level 16, 461 Bourke Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. <http://www.nemmco.com.au>

Transfers of Victoria small electricity customers of 52,441 in June takes total above two million

Small customer transfers in Victoria exceeded two million in June with a total of 52,441 going on to market contracts, according to the latest National Electricity Market Management Company (NEMMCO) transfer figures.

Small transfers at 2,044,831: Despite being down 7333 (12.3 per cent) on the exceptionally high 59,774 in May, the June transfers were enough to take the total to 2,044,831.

7500 more in June 2007: The June total was up up 7500 (16.7 per cent) on the 44,941 in June 2006.

Large electricity transfers now total 22,498: The 67 transfers of large customers in June was down 19 (22.1 per cent) on the 86 in May. The June 2007 total was down 43 (39.1 per cent) on the 110 in June 2006.

5,508 rise in combined total: The combined total of small and large electricity transfers at the end of June was 2,067,396, up 52,508 on the 2,014,888 at the end of May. The combined June total was up 625,464 on the combined total of 1,441,932 at the end of June 2006.

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 total transfers of large and small customers for the 2006/07 financial year with the June 2006 figures given for comparison purposes.

| Time | Small Customers | Progressive | Large customers | Progressive | Total all customers |
|----------------|-----------------|-------------|-----------------|-------------|---------------------|
| June 2006: | 44,941 | 1,423, 274 | 110 | 18,658 | 1,441,932 |
| July 2006 | 45,909 | 1,469,183 | 927 | 19,585 | 1,488, 768 |
| August 2006 | 48,103 | 1,517,286 | 240 | 19,825 | 1,537,111 |
| September 2006 | 49,857 | 1,567,143* | 167 | 19,992 | 1,587,135 |
| October 2006 | 51,046 | 1,618,189* | 169 | 20,161 | 1,638,350* |
| November 2006 | 48,884 | 1,667,073 | 170 | 20,331 | 1,687,404 |
| December 2006 | 50,622 | 1,717,695 | 1431 | 21,762 | 1,739,457 |
| January 2007 | 53,401 | 1,771,096 | 336 | 22,098 | 1,793,194 |
| February 2007 | 54,664 | 1,825,760 | 119 | 22,217 | 1,847,977 |
| March 2007 | 57,831 | 1,883,591 | 118 | 22,335 | 1,905,926 |
| April 2007 | 49,025 | 1,932,616 | 77 | 22,412 | 1,955, 028 |
| May 2007 | 59,774 | 1,992,390 | 86 | 22,498 | 2,014,888 |
| June 2007 | 52,441 | 2,044,831 | 67 | 22,565 | 2,067, 396 |

Note: The figures have been adjusted for errors in the NEMMCO totals that began with wrong additions in September-October and have not been corrected in this data.

Reference: National Electricity Market Management Company (NEMMCO) MSATS (market settlement and transfer solutions) retail transfer statistical data for customers in Victoria for June 2007. 10 July 2007. Address: Level 16, 461 Bourke Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. <http://www.nemmco.com.au>

NSW transfers of small electricity customers rise by 385,499 (57.1pc) to 1,060, 870 in 2006/07 financial year

A total of 385,499 small electricity customers

were transferred in NSW in the 2006/07 financial year, the latest National Electricity Market Management Company (NEMMCO) transfer figures show.

Rise of 57.1 per cent: At the end of the financial year 1,060,870 small electricity customers had been transferred, 385,499 (57.1 per cent) more than the 675,391 at the end of the 2005/06 financial year.

65.2 per cent increase: In the 05/06 financial year, transfers of small electricity customers rose by 266,467 (65.2 per cent) from 405,904 to 675,271.

2810 large customer transfers: Transfers of large electricity customers in 2006/07 rose by 2810 (13.7 per cent) from 20,478 to 23,283. This compares with an increase of 2349 (13.0 per cent) between 2004/05 and 2005/06.

Combined total of 1,084,158 at end of year: The combined total of small and large electricity customers transferred at the end of 2006/07 was 1,084,158, which was up 388,309 (55.8 per cent) on the 695,849 at the end of 2005/06.

62.9 per cent increase the previous year: The rise in the combined total in 2005/06 was 268,816 (62.9 per cent) on the 427,033 total at the end of the 2004/05 financial year.

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.

Reference: National Electricity Market Management Company (NEMMCO) MSATS (market settlement and transfer solutions) retail transfer statistical data for customers in NSW for June 2007. 10 July 2007. Address: Level 16, 461 Bourke Street, Melbourne. Vic. 3000. Phone: (03) 9648 8777. Fax: (03) 9648 8778. http://www.nemmco.com.au

112,907 transfers of small NSW electricity customers makes June quarter first to exceed 100,000

A total of 112,907 small NSW electricity customers were transferred in the June quarter of 2007, the first quarter to exceed 100,000 transfers, the latest National Electricity Market Management Company (NEMMCO) transfer figures show.

16,221 rise on March quarter: The June quarter transfers were up by 16,221 (16.8 per cent) on the March quarter total of 96,686.

35.7 per cent more than June 2006 quarter: They were up 29,704 (35.7 per cent) on the 83,203 in the June quarter of 2006. Big drop in transfers of large customers: However, transfers of large electricity customers in the June quarter of 310 were down 508 (62.1 per cent) on the 818 in the March quarter. They were up 91 (41.6 per cent) on the 219 in the June quarter of 2006.

Comparison of relevant quarters: The following table shows the transfers of small and large electricity customers in the June 2007 quarter, the March 2007 quarter and the June 2006 quarter:

| Time | Small Customers | Progressive | Large customers | Progressive | Total all customers |
|----------------|-----------------|-------------|-----------------|-------------|---------------------|
| June 2006: | 44,941 | 1,423, 274 | 110 | 18,658 | 1,441,932 |
| July 2006 | 45,909 | 1,469,183 | 927 | 19,585 | 1,488, 768 |
| August 2006 | 48,103 | 1,517,286 | 240 | 19,825 | 1,537,111 |
| September 2006 | 49,857 | 1,567,143* | 167 | 19,992 | 1,587,135 |
| October 2006 | 51,046 | 1,618,189* | 169 | 20,161 | 1,638,350* |
| November 2006 | 48,884 | 1,667,073 | 170 | 20,331 | 1,687,404 |
| December 2006 | 50,622 | 1,717,695 | 1431 | 21,762 | 1,739,457 |
| January 2007 | 53,401 | 1,771,096 | 336 | 22,098 | 1,793,194 |
| February 2007 | 54,664 | 1,825,760 | 119 | 22,217 | 1,847,977 |
| March 2007 | 57,831 | 1,883,591 | 118 | 22,335 | 1,905,926 |
| April 2007 | 49,025 | 1,932,616 | 77 | 22,412 | 1,955, 028 |
| May 2007 | 59,774 | 1,992,390 | 86 | 22,498 | 2,014,888 |
| June 2007 | 52,441 | 2,044,831 | 67 | 22,565 | 2,067, 396 |

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.

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