

14 – 20 AUGUST 2005

Prices across the market fell significantly compared to the previous two weeks – by more than half in Tasmania and by around 40 per cent across much of the mainland. Spot prices in Tasmania averaged \$65/MWh for the week, compared to \$170/MWh the previous week. Water levels in catchments have increased from as low as 20 per cent of full capacity in late July to around 30 per cent. This increase has seen a reduction in Hydro Tasmania’s offer price profile from 12 August, which combined with a reduction in demand, has led to significant reductions to the price. Despite this increase in water levels, storages are at the lowest for several years. The Tasmanian Government is currently considering a proposal for an additional 105MW of gas fired generation ahead of Basslink, which is due in April next year.

Prices averaged \$30/MWh in South Australia, \$26/MWh in Victoria and \$24/MWh in New South Wales, a reduction of around 40 per cent from the previous week and consistent with a 6 per cent reduction in demand across the mainland. The price in Queensland averaged \$20/MWh, down a quarter compared to the previous week.

Turnover in the energy market reduced to \$100 million, while the total cost of ancillary services for the week was around \$400,000 or 0.4 per cent of the total turnover in the energy market.

Demand forecasts produced 4 and 12 hours ahead varied from actual by more than 5 per cent in three-quarters of all trading intervals in South Australia. This compares with 22 per cent in Victoria, 20 per cent in Tasmania and 7 per cent in Queensland and New South Wales. Significant variations between forecast and actual prices occurred in 42 or thirteen per cent of all trading intervals.

Energy prices

Figure 1 compares the volume weighted average price with the averages for the previous week, the same quarter last year and for the financial year up to the end of the week. Figure 2 sets out national demand and spot prices in each region for each trading interval Figure 3 compares the weekly price volatility index with the averages for the previous week and the same quarter last year.

Figure 1: volume weighted average spot price for energy market (\$/MWh)

	QLD	NSW	VIC	SA	TAS
Last week	20	24	26	30	65
Previous week	26	42	42	46	170
Same quarter last year	27	31	28	36	-
Financial year to date	20	28	30	35	119
% change from previous week	▼25%	▼43%	▼39%	▼35%	▼62%
% change from same quarter last year	▼25%	▼24%	▼9%	▼18%	-
% change from last financial year	▼24%	▼19%	0%	▼15%	-

Figure 2: national demand and spot prices

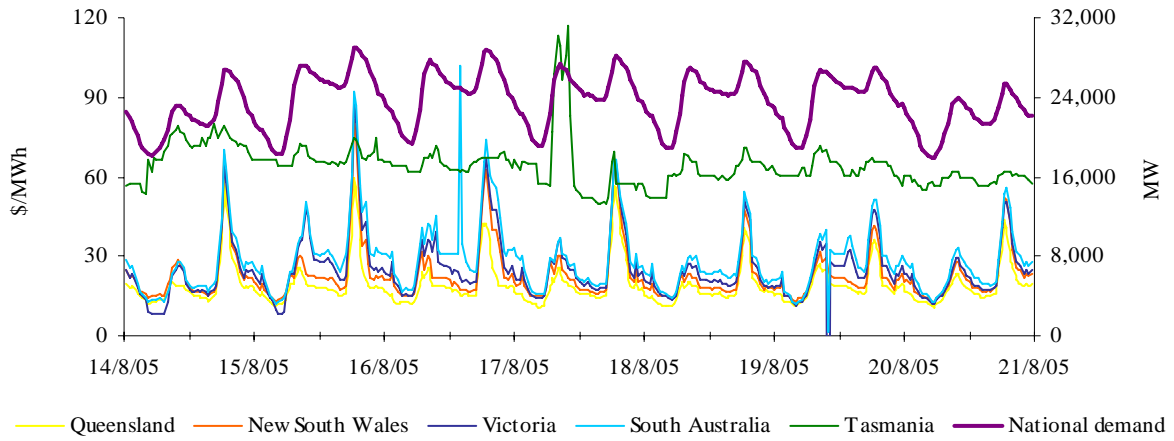


Figure 3: volatility index during peak periods

	QLD	NSW	VIC	SA	TAS
Last week	0.65	0.94	0.97	0.89	0.19
Previous week	1.77	1.95	1.78	1.59	0.42
Same quarter last year	0.64	0.74	0.71	0.56	-

Figures 4 to 8 show the weekly correlation between spot price and demand.

Figure 4: Queensland

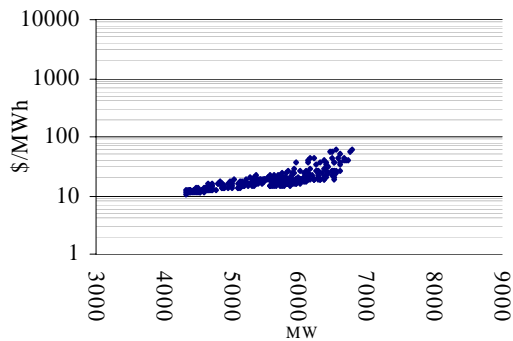


Figure 5: New South Wales

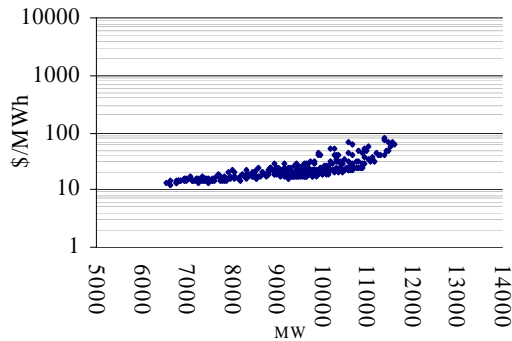


Figure 6: Victoria

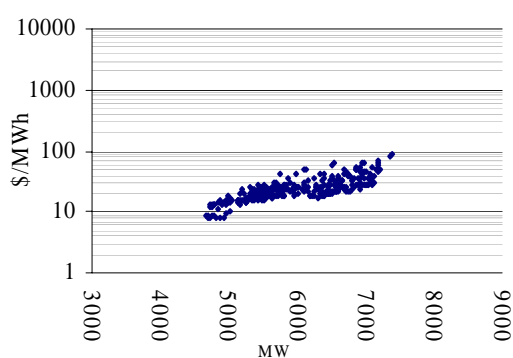


Figure 7: South Australia

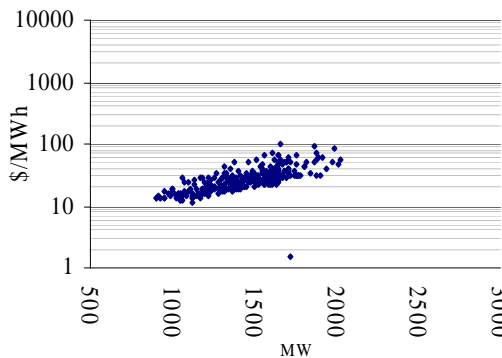
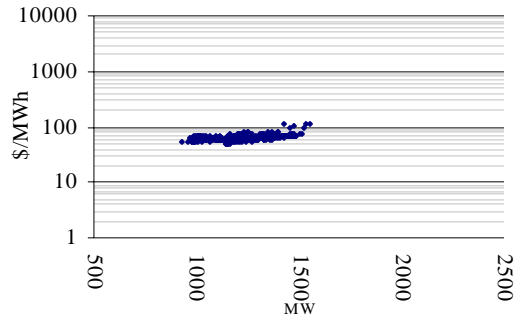


Figure 8: Tasmania



The maximum spot price in South Australia of \$102/MWh occurred on Tuesday. In Queensland, New South Wales and Victoria spot prices peaked between \$59/MWh and \$88/MWh on Monday evening.

In Tasmania, the spot price reached \$117/MWh on Wednesday. A change to Hydro Tasmania’s offer profile from 12 August saw an increase of 500MW or around half, in the capacity offered at prices of less than \$75/MWh, the majority of which had previously been priced between \$100/MWh and \$150/MWh.

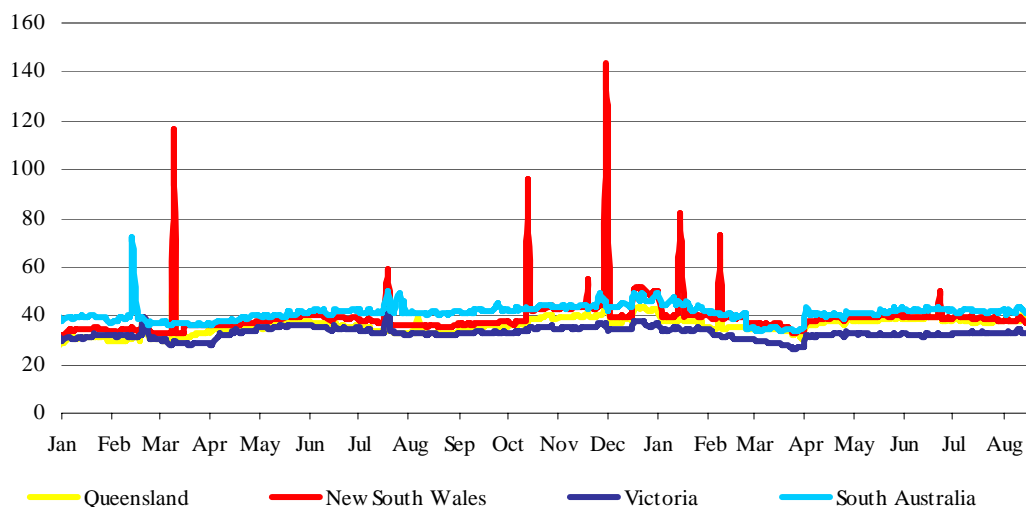
On Friday at 9.45am, a 5 minute price of \$-1,000/MWh in Victoria and \$-161/MWh in South Australia occurred as a result of incorrect limit calculations for the Victoria to Snowy and Murraylink interconnectors. NEMMCO is investigating.

Figure 9 sets out the d-cyphaTrade wholesale electricity price index (WEPI) for each region throughout the week excluding Tasmania. Figure 10 sets out the WEPI since 1 January 2004.

Figure 9: d-cyphaTrade WEPI for the week

	Monday	Tuesday	Wednesday	Thursday	Friday
Queensland	37.42	37.77	37.48	37.74	37.38
New South Wales	36.99	37.66	37.24	36.92	36.98
Victoria	32.59	32.66	32.23	32.20	32.43
South Australia	40.85	41.97	40.35	41.64	41.75

Figure 10: d-cyphaTrade WEPI



Reserve

There were no low reserve conditions forecast throughout the week. Figures 11 to 14 show spot price, net imports and limits at the time of weekly maximum demand.

Figures 11 to 14: spot price, net import and limit at time of weekly maximum demand

Figure 11: Queensland

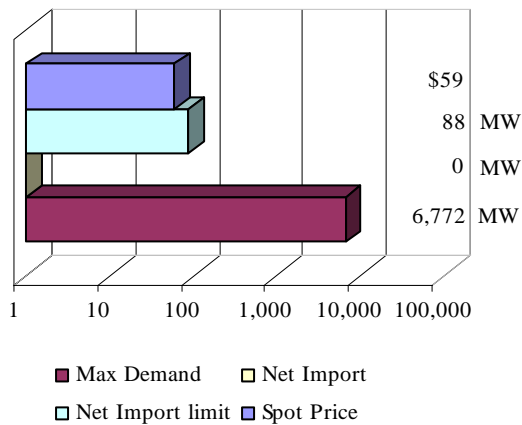


Figure 12: New South Wales

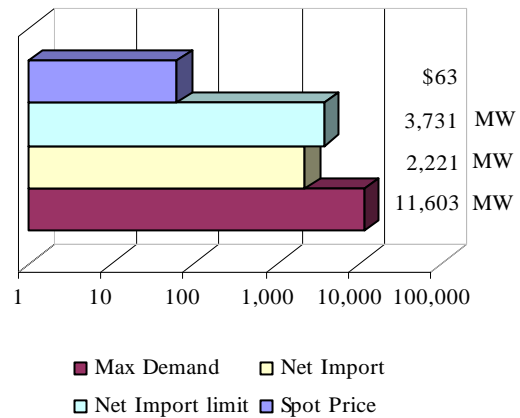


Figure 13: Victoria

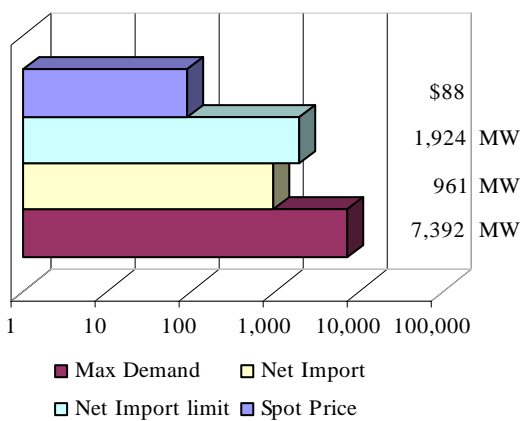
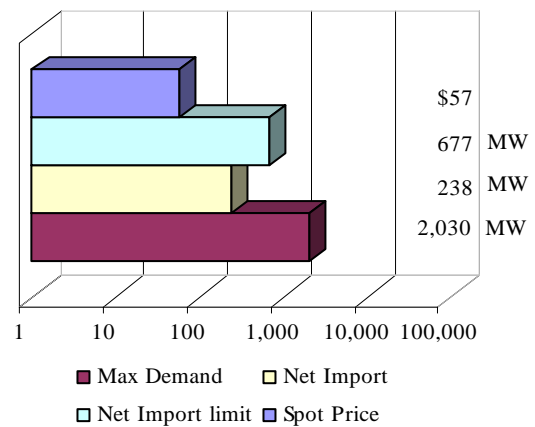


Figure 14: South Australia



In Tasmania, the demand reached a maximum of 1,552MW at 8.30am on Wednesday morning. The spot price at the time was \$72/MWh.

Price variations

There were 42 trading intervals where significant variations between forecast and actual prices occurred, calculated 4 and 12 hours ahead of despatch. Figures 15 to 18 set out the correlation between the actual price and demand and those forecast. The information is presented in terms of the percentage difference from actual. Price differences beyond 200 per cent have been capped.

Figure 15: Queensland

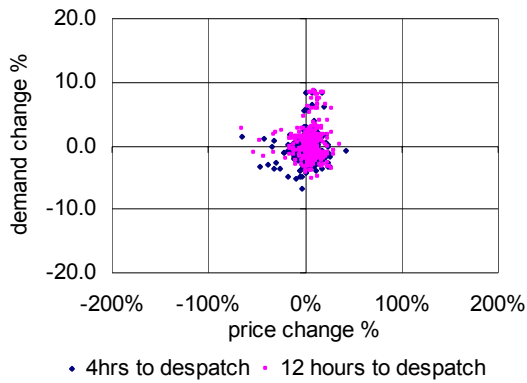


Figure 16: New South Wales

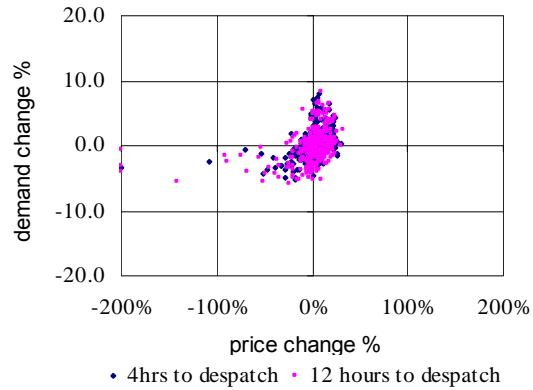


Figure 17: Victoria

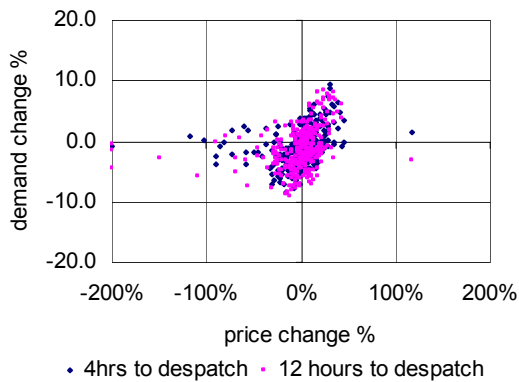


Figure 18: South Australia

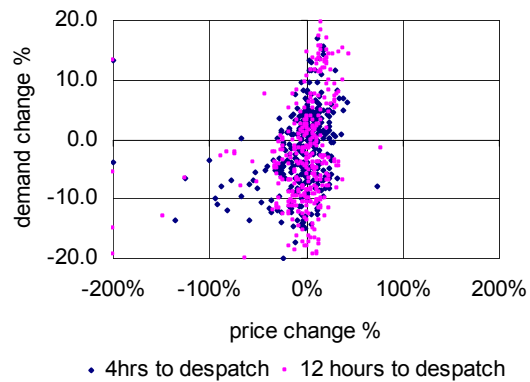


Figure 19: Tasmania

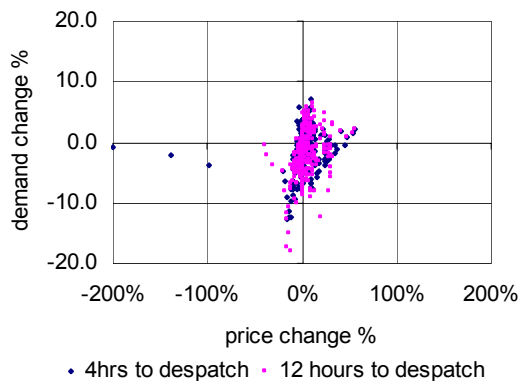
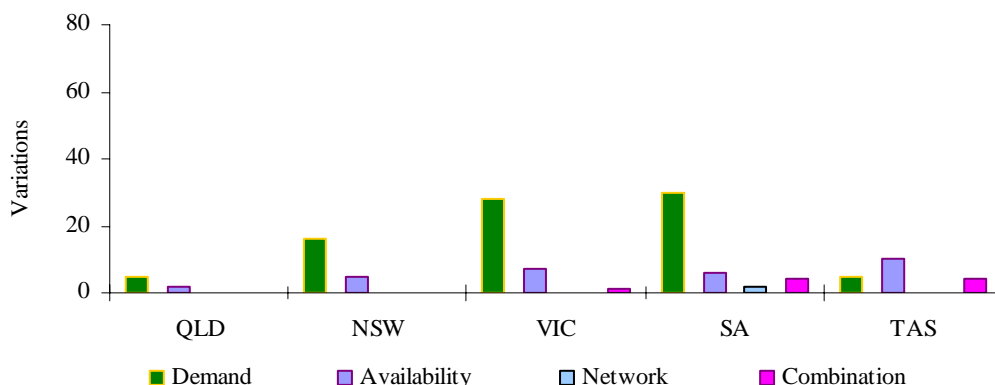


Figure 20 summarises the number and most probable reason for variations between forecast and actual prices.

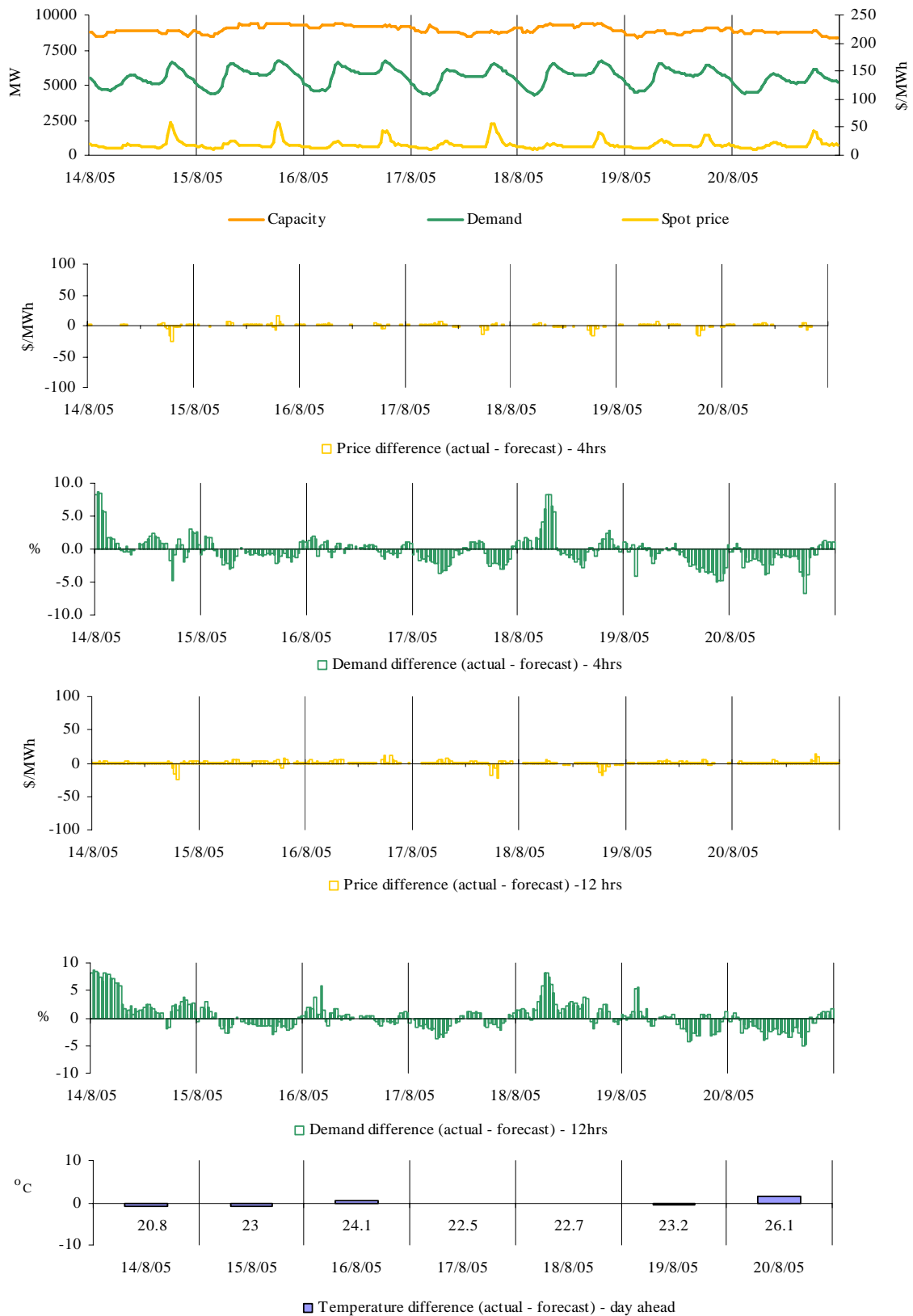
Figure 20: reasons for variations between forecast and actual prices



Price and demand

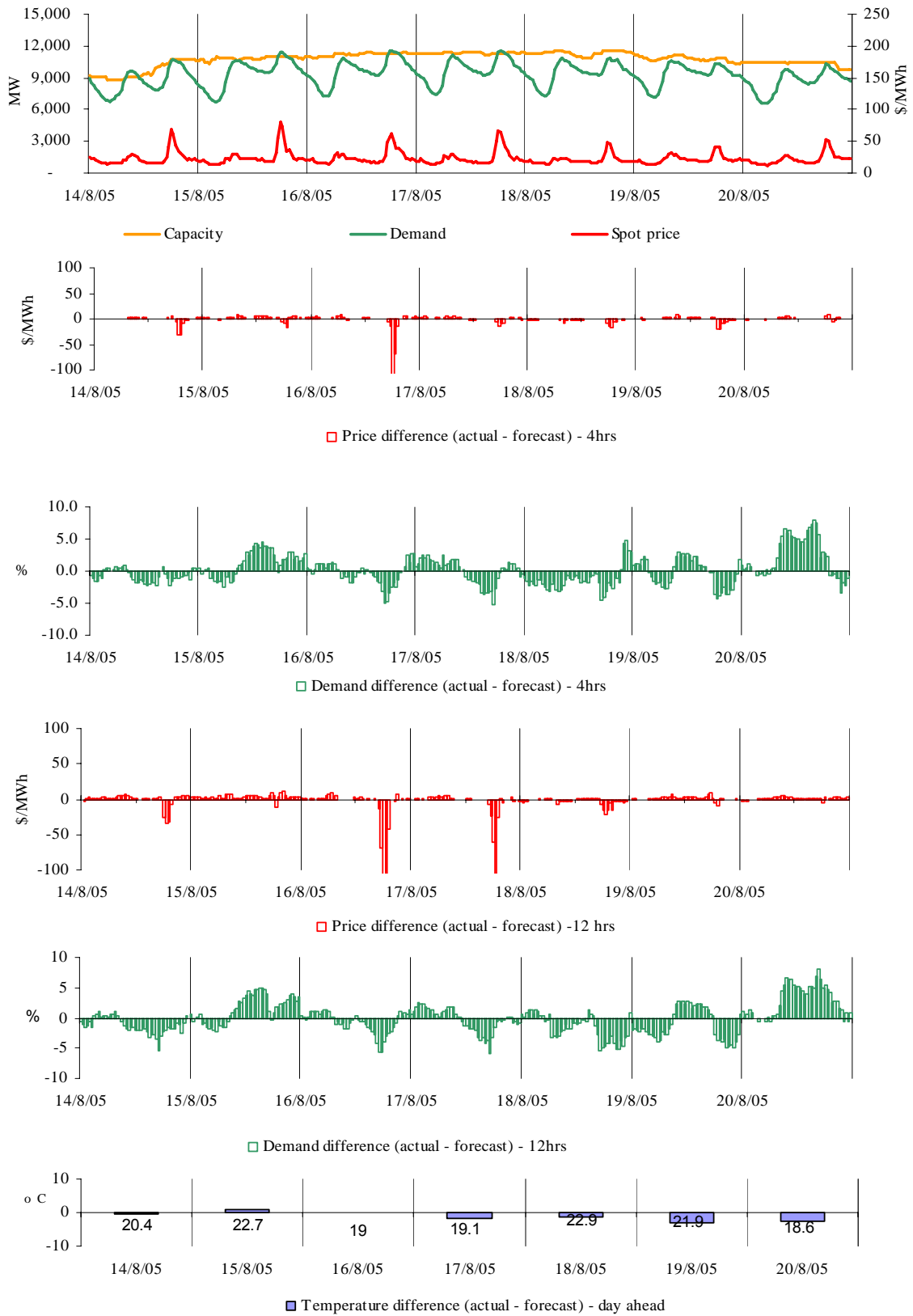
Figures 21 - 50 set out details of spot prices and demand on a regional basis. They include the actual spot price and demand outcomes and difference graphs both four and twelve hours ahead of despatch on a daily basis. The differences between the maximum temperature and the temperature forecast at around 6.00 pm the day before are also included. Figures 51 - 55 set out, for each region, the extent of capacity offered into the market within a series of price thresholds. Actual price and generation despatched in a region are overlaid.

Figures 21-26: Queensland actual spot price, demand and forecast differences



There were no occasions in Queensland where the spot price was greater than three times the weekly average price of \$20/MWh.

Figures 27-32 New South Wales actual spot price, demand and forecast differences



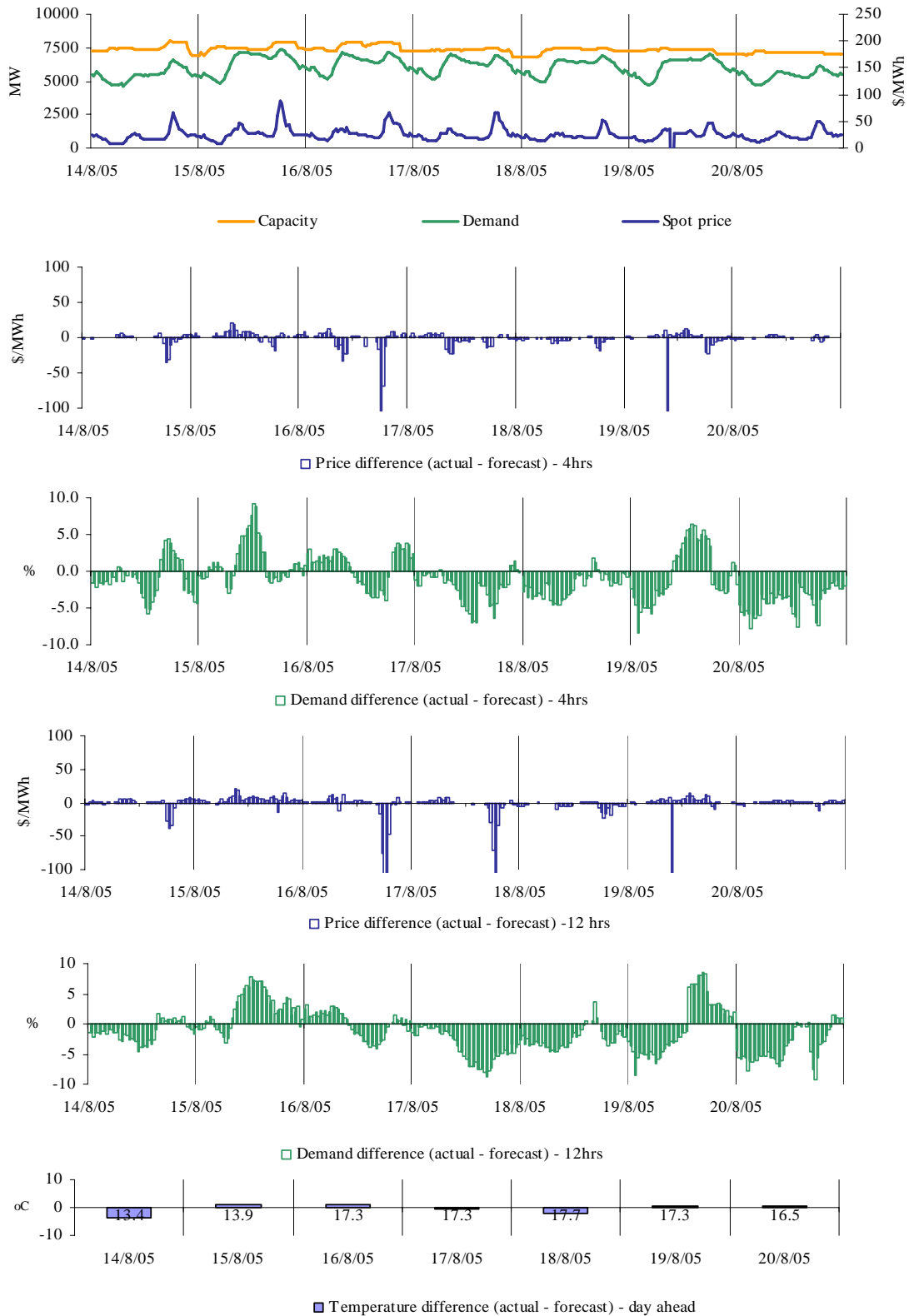
There were 2 occasions in New South Wales where the spot price was greater than three times the weekly average price of \$24/MWh. These occurred during the evening peak on Monday.

Monday, 15 August

6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	81.16	90.80	76.13
Demand (MW)	11,385	11,281	11,282
Available capacity (MW)	11,031	11,031	11,346
7:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	73.82	89.93	85.43
Demand (MW)	11,366	11,168	11,168
Available capacity (MW)	11,031	11,031	11,346

Conditions at the time saw demand up to 200MW higher than that forecast four hours to despatch. Prices were generally as forecast and aligned across the southern regions. There was no significant rebidding.

Figures 33-38: Victoria actual spot price, demand and forecast differences



There were 2 occasions in Victoria where the spot price was greater than three times the weekly average price of \$26/MWh. These occurred during the evening peak on Monday.

Monday, 15 August

6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	88.20	100.16	82.90
Demand (MW)	7,392	7,481	7,236
Available capacity (MW)	7,909	7,949	7,546
7:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	81.05	99.60	94.52
Demand (MW)	7,374	7,383	7,195
Available capacity (MW)	7,909	7,949	7,481

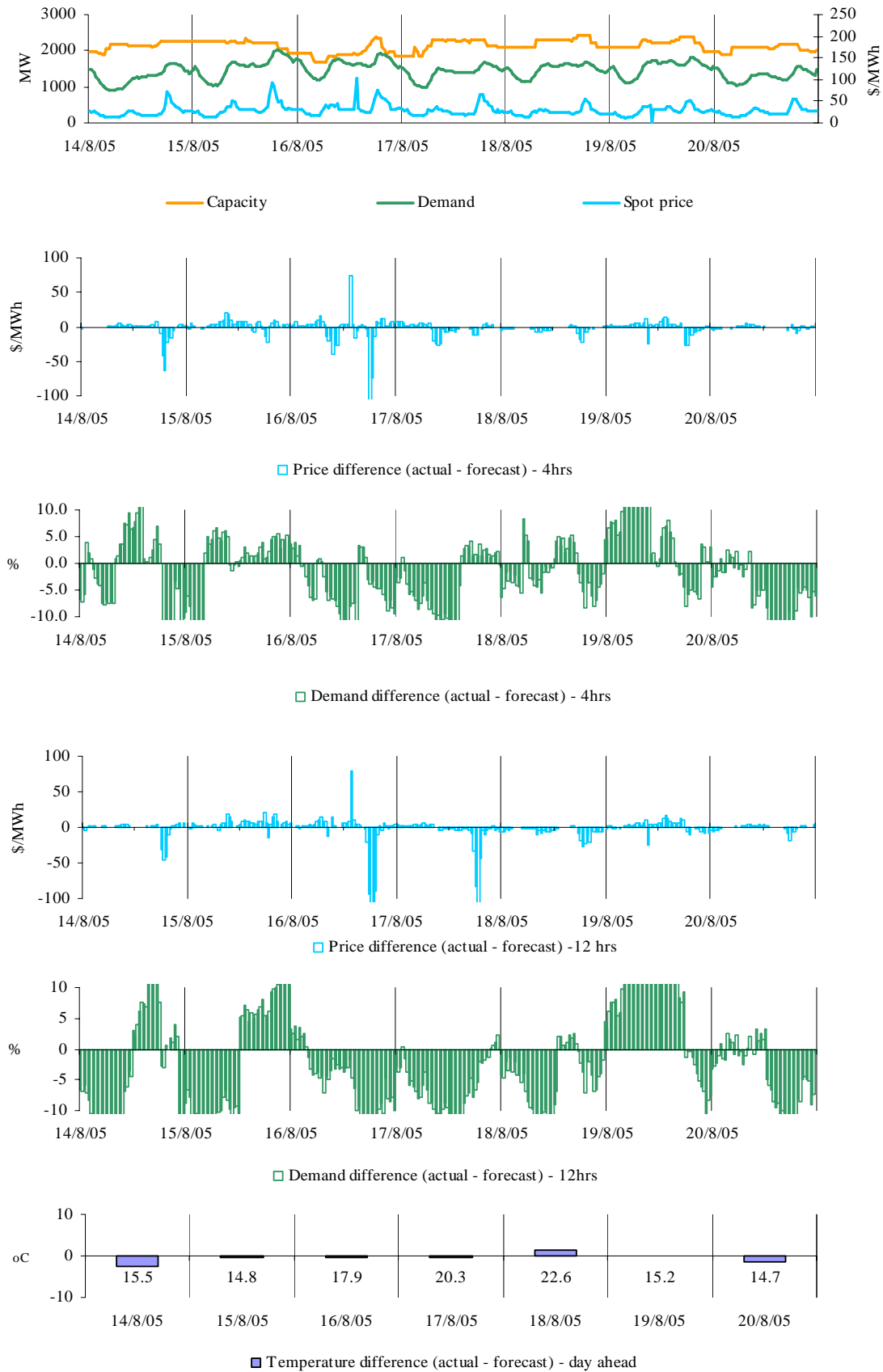
Conditions at the time saw demand close to forecast. Prices were aligned across the southern regions and were generally as forecast.

At 11.57am, Ecogen committed Newport with 100MW of capacity priced at less than zero. The rebid reason given was “Adj to unit commitment due to PD conditions”. At 6.14pm, a 50MW was shifted to prices of less than zero. The rebid reason give was “Adj to unit commitment due to PD conditions”.

At 5.56pm, Southern Hydro rebid 60MW of capacity at McKay from prices of around \$95/MWh to prices around \$50/MWh. The rebid reason given was “Optimise AS and energy::increase energy band”. At 6.06pm, 48MW of this capacity was returned to prices of \$97/MWh. The rebid reason given was “Optimise AS and energy::decrease energy band”.

There was no other significant rebidding.

Figures 39-44: South Australia actual spot price, demand and forecast differences



There were 2 occasions in South Australia where the spot price was greater than three times the weekly average price of \$30/MWh. These occurred at 6.30pm on Monday and at 2pm on Tuesday.

Monday, 15 August

6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	91.93	106.05	85.53
Demand (MW)	1,865	1,848	1,765
Available capacity (MW)	2,223	2,251	2,385

Conditions at the time saw demand close to forecast. Prices were aligned across the southern regions and were generally as forecast.

Over two rebids at 4.03pm and 4.20pm, Origin Energy repriced 96 MW of capacity from \$9,000/MWh to zero, committing all four Quarantine units. The rebid reason given was “(N) Change in PDS”.

At 4.07pm, NRG Flinders reduced the available capacity at Playford from 70MW to 40MW. All of this capacity was priced at less than zero. The rebid reason given was “1600 EST (N) change in PDS”.

There was no other significant rebidding.

Thursday, 16 August

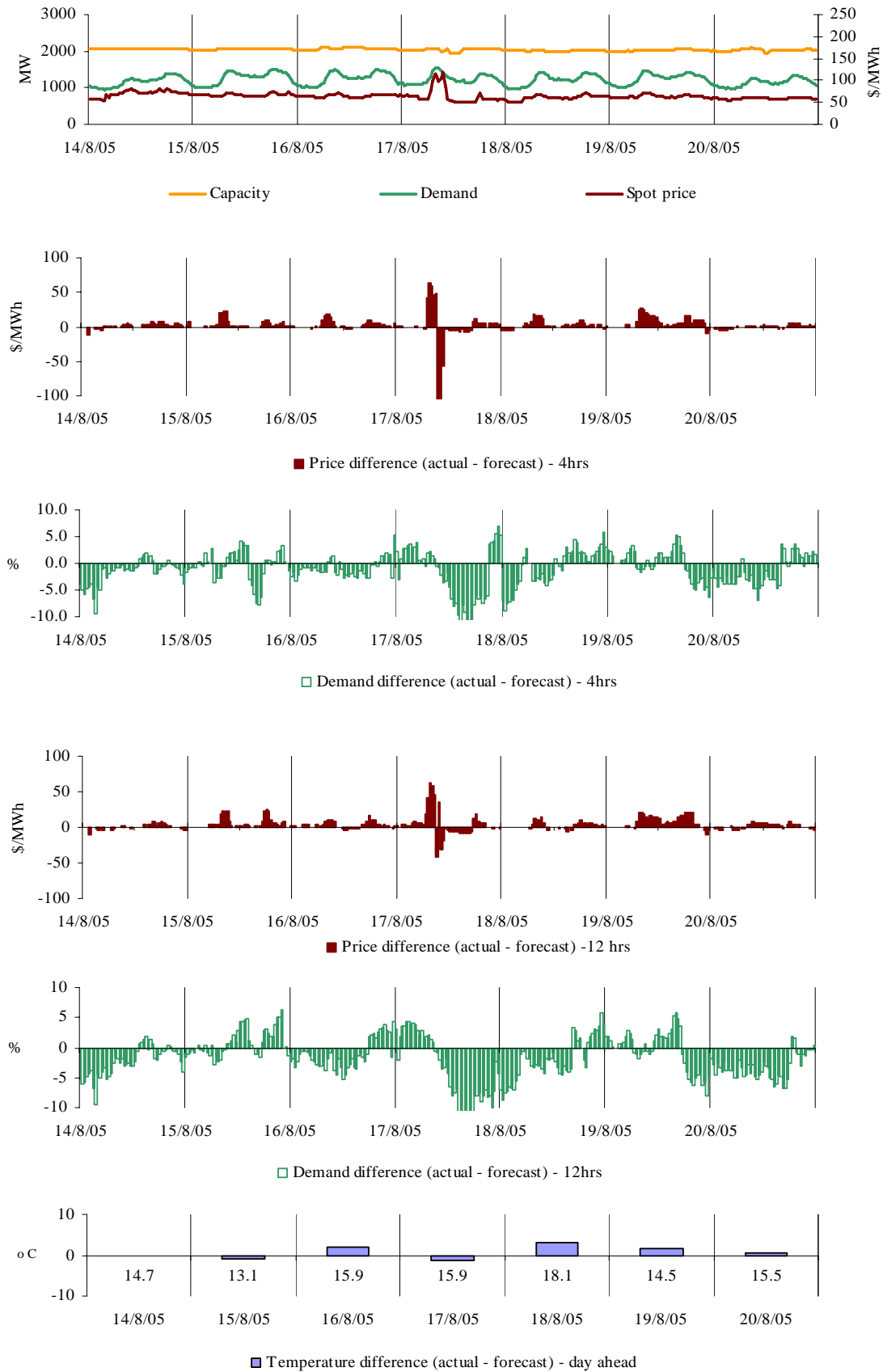
2:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	102.12	27.20	23.51
Demand (MW)	1,658	1,791	1,683
Available capacity (MW)	1,882	2,275	2,265

Conditions at the time saw demand lower than the four hour ahead forecast. Price, however, was higher than forecast. An unplanned reduction by 200 MW to the limit across Murraylink saw flows reduced from 90 MW to zero from 1.45pm. The 5 minute price increased from \$31/MWh to \$292/MWh with this reduction. Flows into South Australia via Heywood were above the limit of 460 MW, from 1.20pm to 1.50pm, by as much as 100 MW.

At 1.38pm, NRG Flinders reduced the available capacity at Northern by 24MW. All of this capacity was priced at less than \$15/MWh. The rebid reason given was “NPS1 plant condition”.

There was no other significant rebidding.

Figures 45-50: Tasmania actual spot price, demand and forecast differences



There were no occasions in Tasmania where the spot price was greater than three times the weekly average price of \$65/MWh.

Figure 51: Queensland closing bid prices, despatched generation and spot price

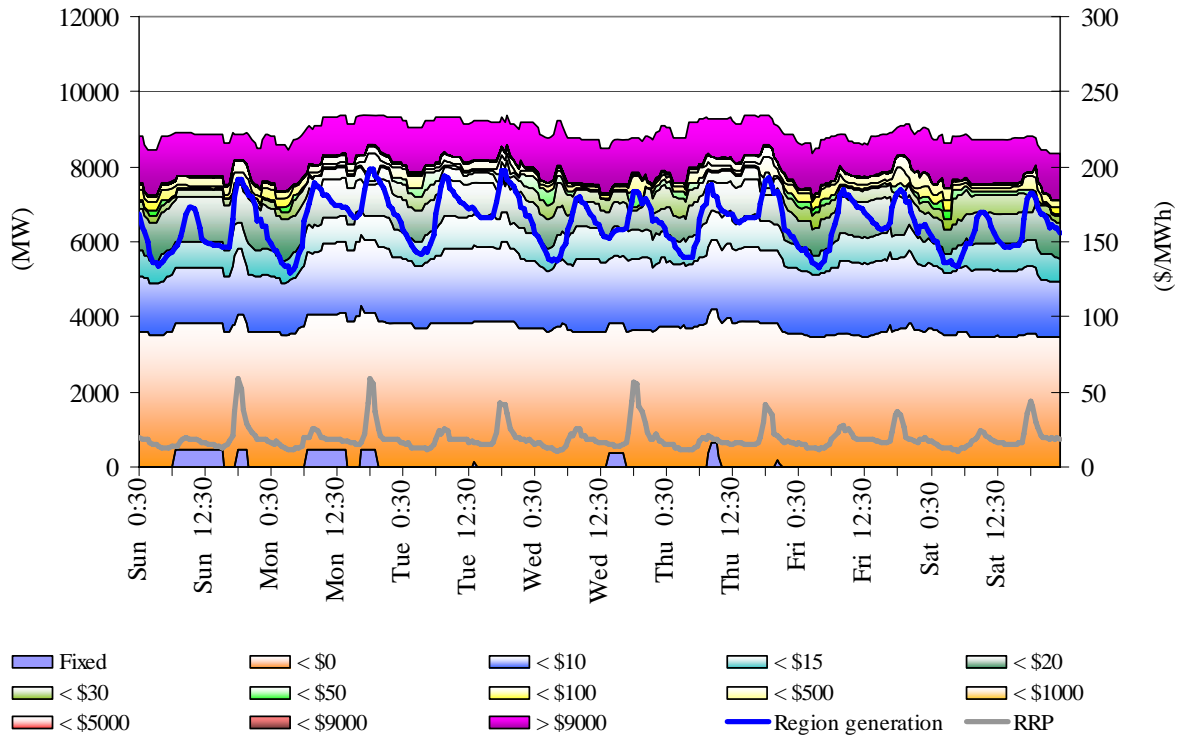


Figure 52: New South Wales closing bid prices, despatched generation and spot price

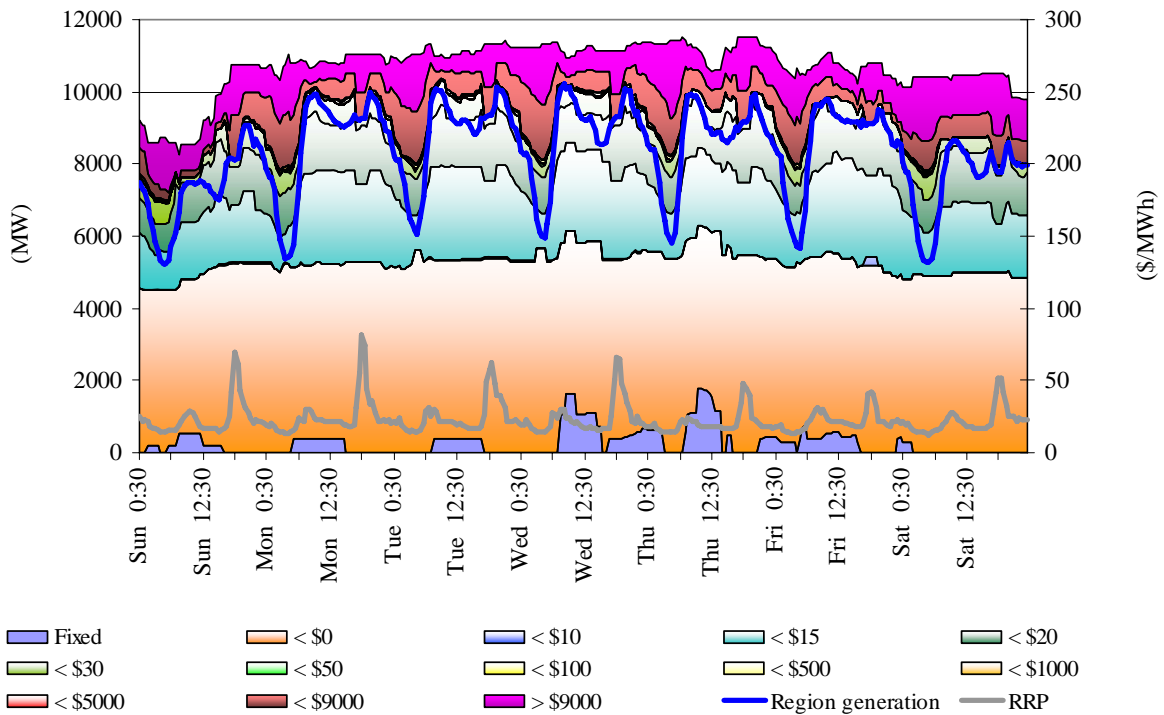


Figure 53: Victoria closing bid prices, despatched generation and spot price

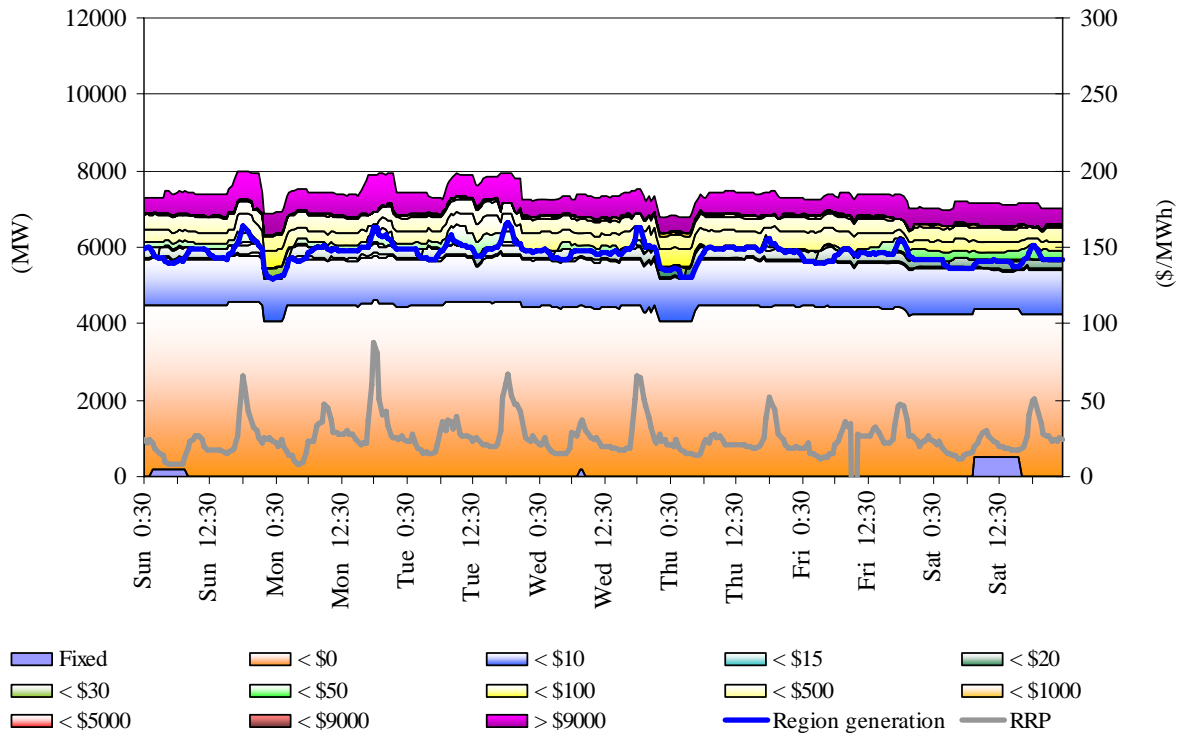


Figure 54: South Australia closing bid prices, dispatched generation and spot price

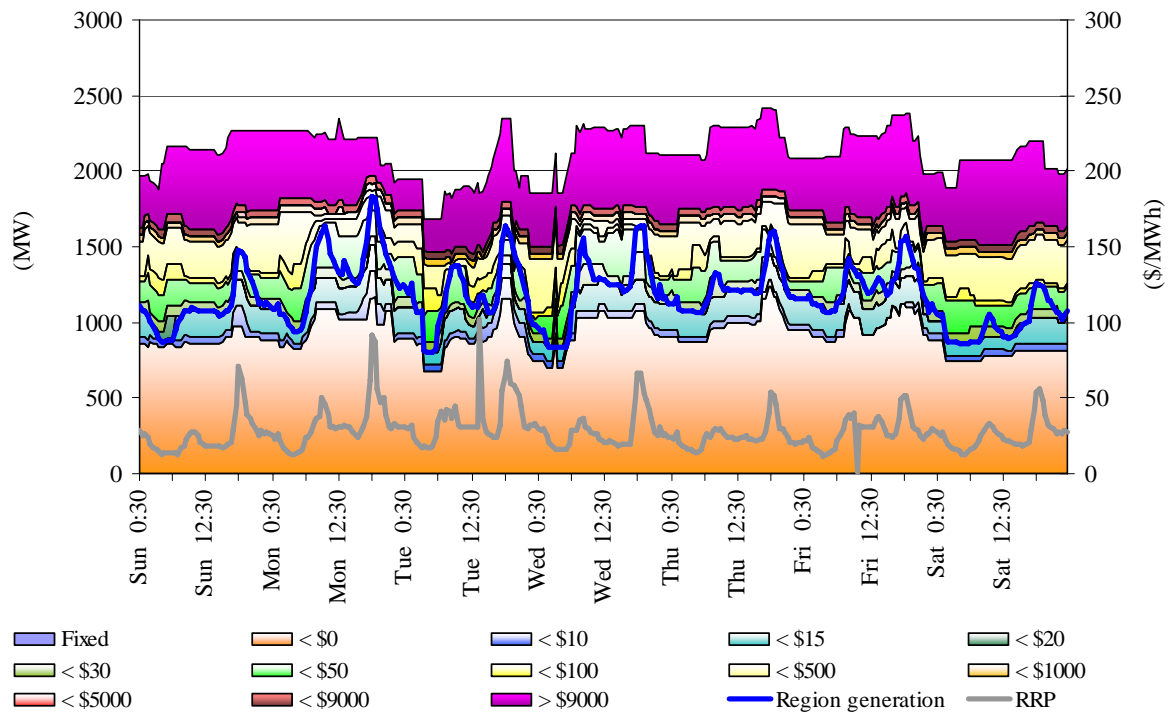
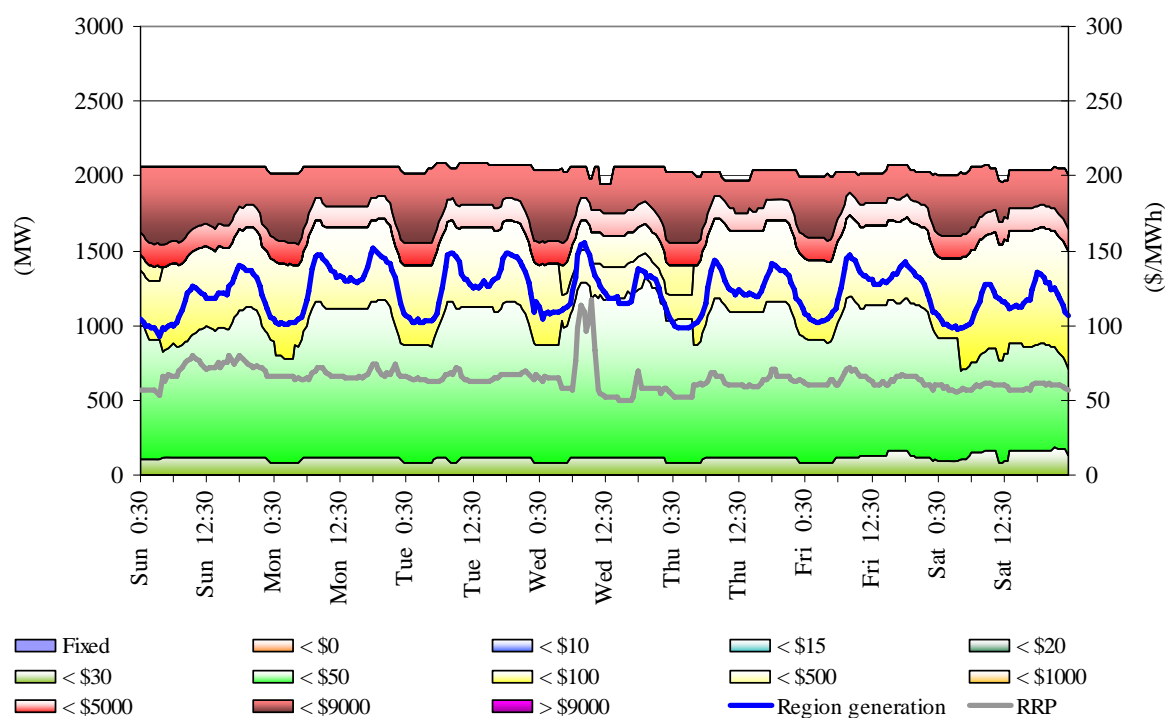


Figure 55: Tasmania closing bid prices, despatched generation and spot price



Ancillary service market

The total cost of ancillary services for the week was \$393,000 or 0.4 per cent of the total turnover in the energy market. The cost of ancillary services in Tasmania remained at higher levels than the mainland at \$160,000 or 1.2 per cent of the energy market turnover for the region.

Figure 56 summarises the volume weighted average prices and costs for the eight frequency control ancillary services across the interconnected regions. Figure 57 summarises the Tasmanian prices and costs.

Figure 56: volume weighted average frequency control ancillary service prices

	Raise 6 sec	Raise 60 sec	Raise 5 min	Raise reg	Lower 6 sec	Lower 60 sec	Lower 5 min	Lower reg
Last week (\$)	1.14	0.56	0.88	1.21	0.15	0.17	1.03	1.55
Previous week(\$)	0.94	0.49	0.87	1.53	0.15	0.15	1.02	1.52
Last Quarter(\$)	2.43	0.81	0.99	1.07	0.23	0.96	2.96	1.51
Market Cost (\$1000s)	\$57	\$28	\$59	\$26	\$1	\$1	\$24	\$34
% of energy market	0.06%	0.03%	0.07%	0.03%	0.00%	0.00%	0.03%	0.04%

Figure 57: volume weighted average frequency control ancillary service price for Tasmania

	Raise 6 sec	Raise 60 sec	Raise 5 min	Raise reg	Lower 6 sec	Lower 60 sec	Lower 5 min	Lower reg
Last week (\$)	1.43	1.05	1.06	1.22	3.81	1.08	1.05	1.09
Previous week(\$)	1.39	1.05	1.05	5.32	6.50	1.05	1.05	1.12
Market Cost (\$1000s)	\$14	\$11	\$12	\$10	\$48	\$32	\$26	\$9
% of energy market	0.11%	0.08%	0.09%	0.08%	0.36%	0.24%	0.19%	0.07%

Figure 58 shows the daily breakdown of cost for each frequency control ancillary service.

Figure 58: daily frequency control ancillary service costs

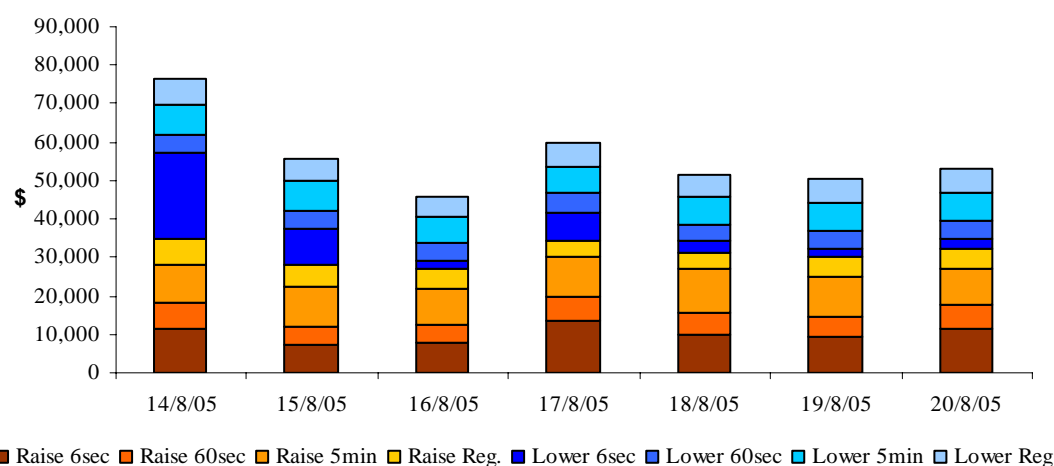
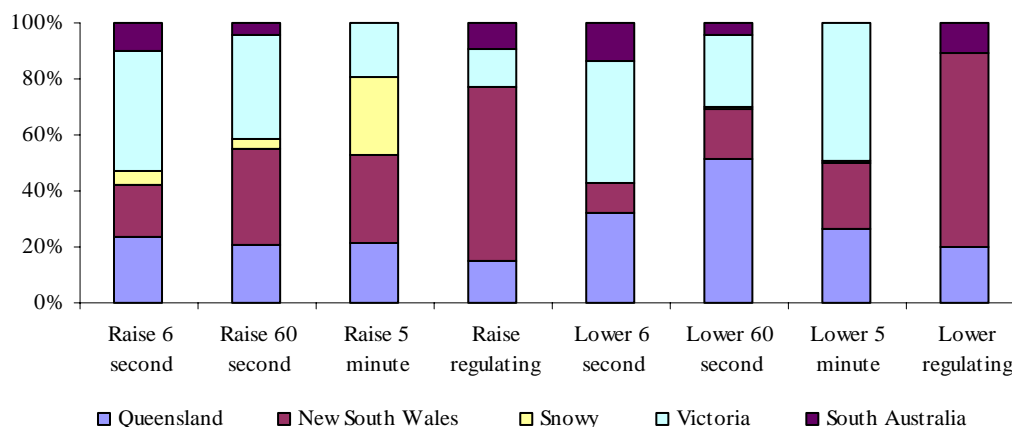


Figure 59 shows the regional weekly participation in each of the ancillary service markets on the mainland.

Figure 59: regional participation in ancillary services



Figures 60 and 61 show 30-minute prices for each of the ancillary services.

Figure 60: prices for raise services

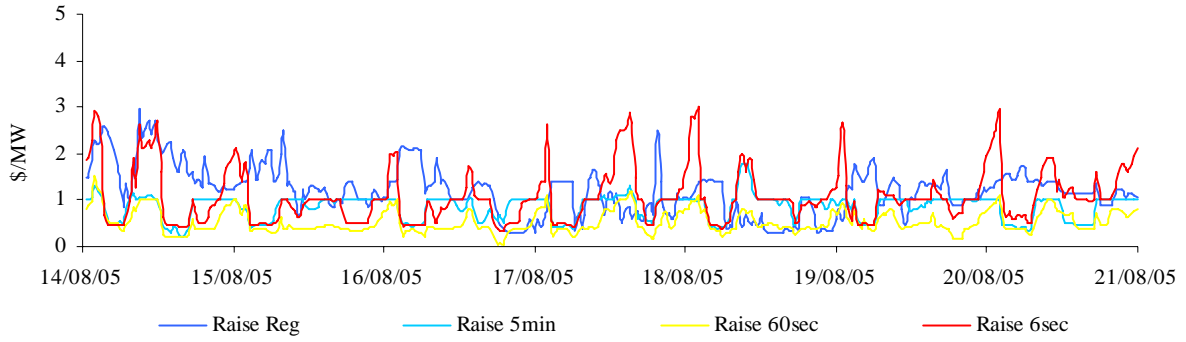


Figure 60A: prices for raise services - Tasmania

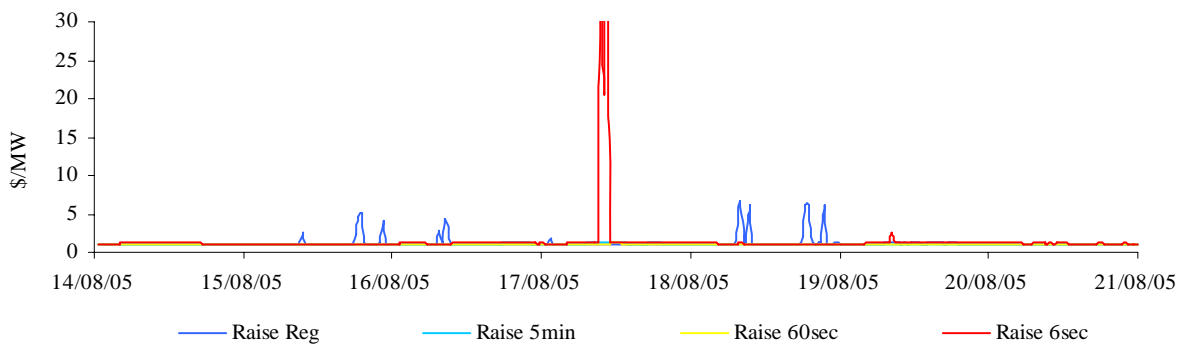


Figure 61: prices for lower services

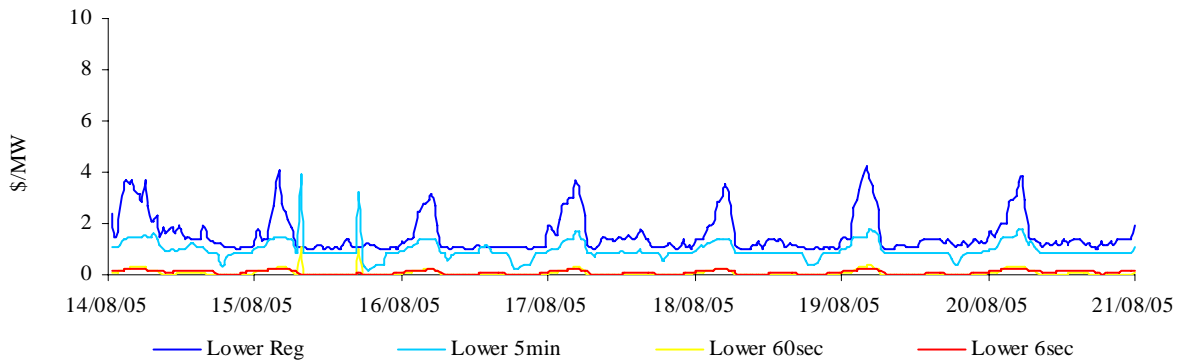
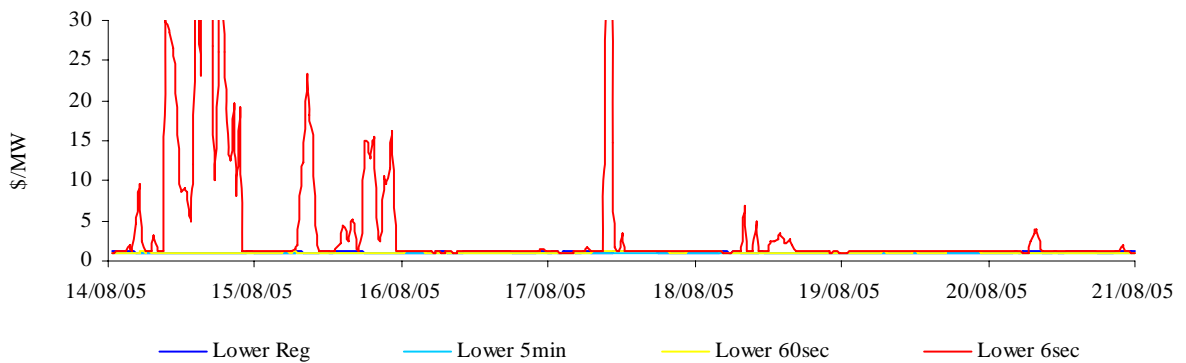


Figure 61A: prices for lower services - Tasmania



Figures 62 and 63 present for both raise and lower services the requirement for each service over the week.

Figure 62: raise requirements

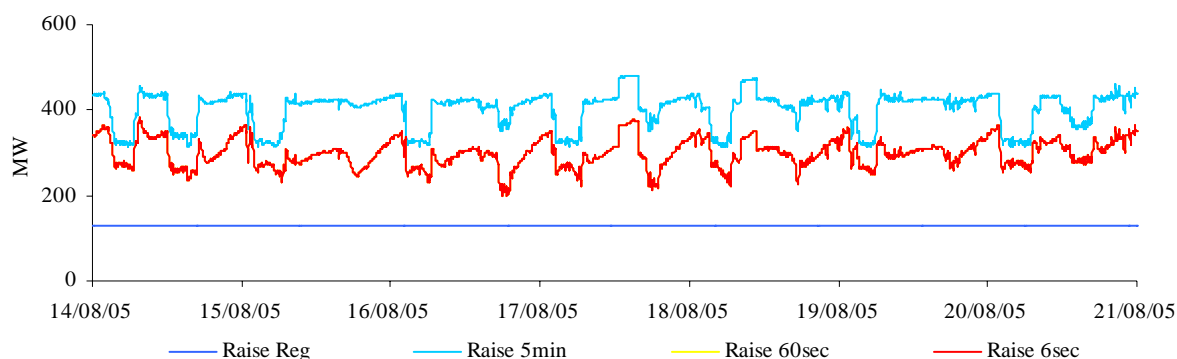


Figure 62A: raise requirements - Tasmania

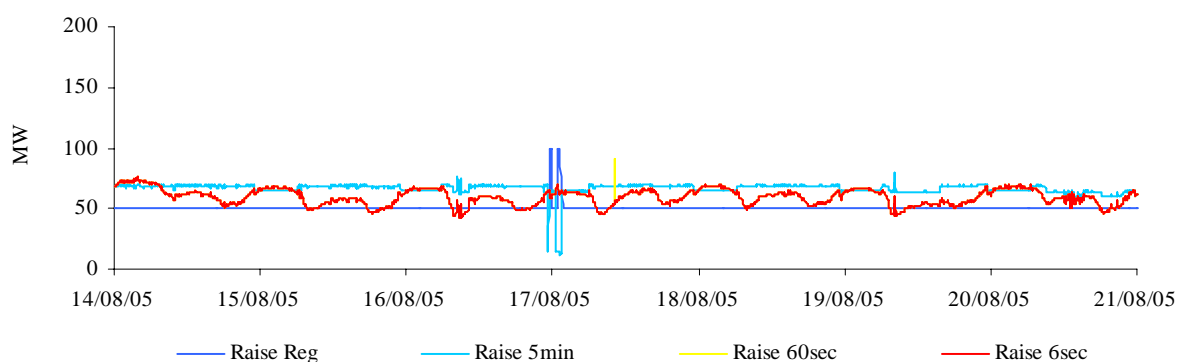


Figure 63: lower requirements

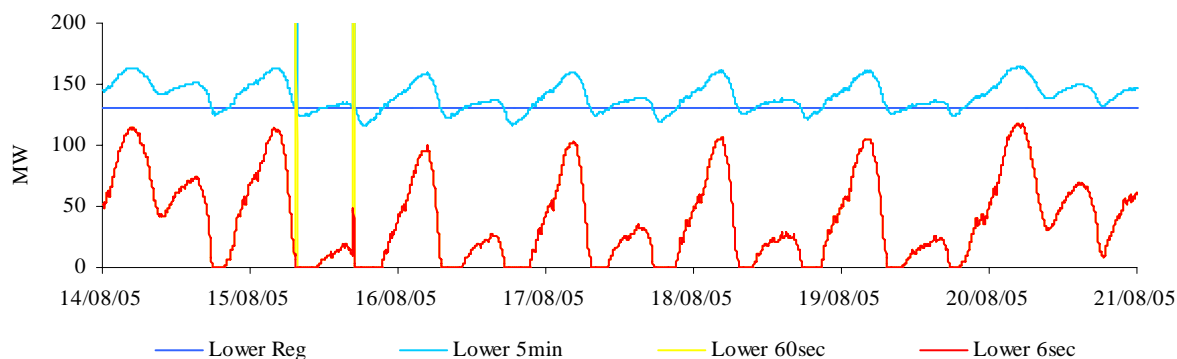


Figure 63A: lower requirements - Tasmania

