

Spot prices for the week averaged \$36/MWh in South Australia, \$29/MWh in Victoria, \$26/MWh in New South Wales and \$18/MWh in Queensland. These prices represent a small increase from the previous week, consistent with higher peak demand. Demand in Victoria and South Australia reached record winter levels on Tuesday evening.

In Tasmania the spot price averaged \$107/MWh, up slightly on the previous week.

The price volatility index was consistent with the previous week across the mainland regions. In Tasmania, the volatility index halved from the previous week.

Turnover in the energy market was around \$125 million, while the total cost of ancillary services for the week was \$420,000 or 0.3 per cent of the total turnover in the energy market. The cost for ancillary services in Tasmania totalled \$138,000 or 0.6 per cent of the energy market turnover for that region.

Demand forecasts produced 4 and 12 hours ahead varied from actual by more than 5 per cent in around 18 per cent of all trading intervals across the market with 43 per cent of trading intervals in South Australia affected. Significant variations between forecast and actual prices occurred in 39 or 12 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 year to June 2005. 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	18	26	29	36	107
Previous week	18	25	26	32	103
Same quarter last year	27	31	28	36	-
Financial year 2004 - 05	31	46	29	39	-
% change from previous week	▲1%	▲7%	▲13%	▲12%	▲4%
% change from same quarter last year	▼31%	▼16%	▲5%	0%	-
% change from 2003 - 04	▼1%	▲24%	▲7%	0%	-

Figure 2: national demand and spot prices

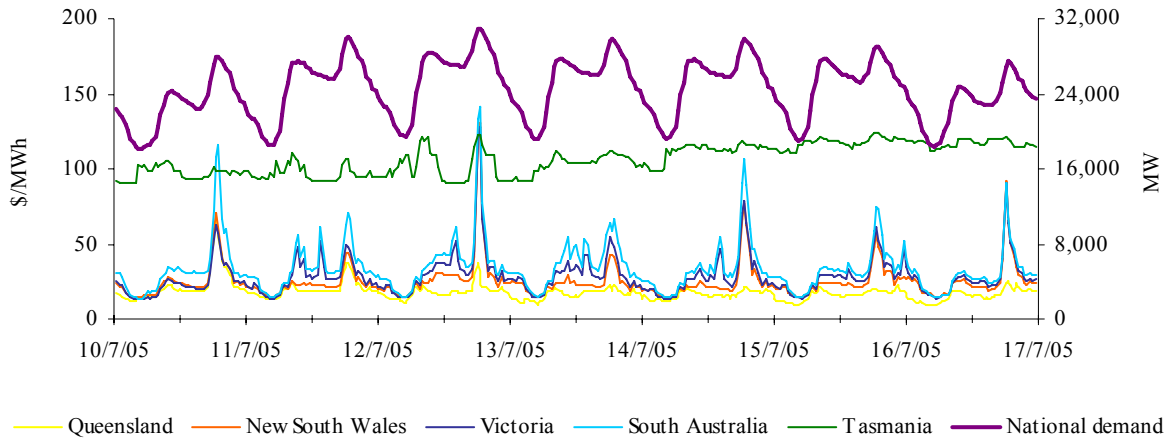


Figure 3: volatility index during peak periods

	QLD	NSW	VIC	SA	TAS
Last week	0.28	0.46	0.69	0.70	0.24
Previous week	0.32	0.49	0.53	0.66	0.43
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

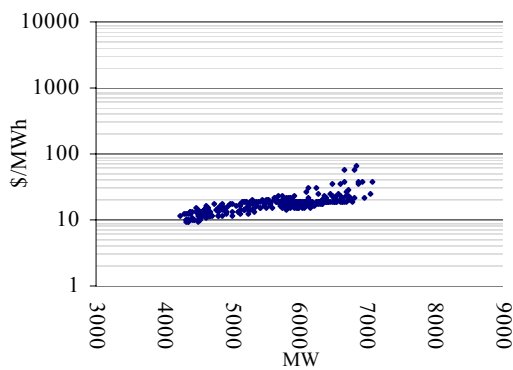


Figure 5: New South Wales

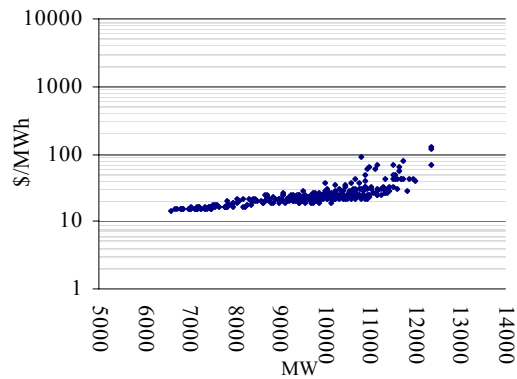


Figure 6: Victoria

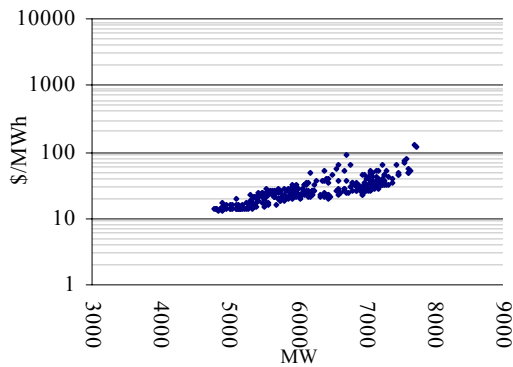


Figure 7: South Australia

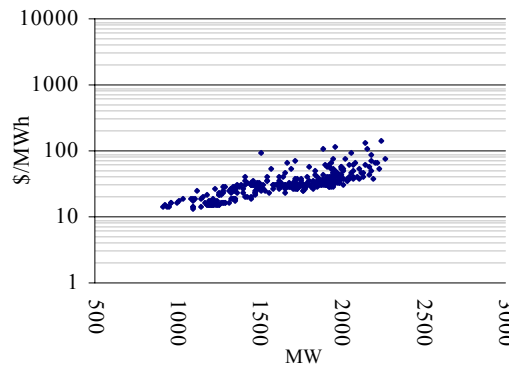
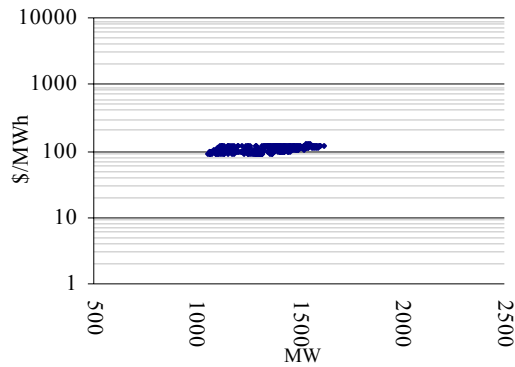


Figure 8: Tasmania



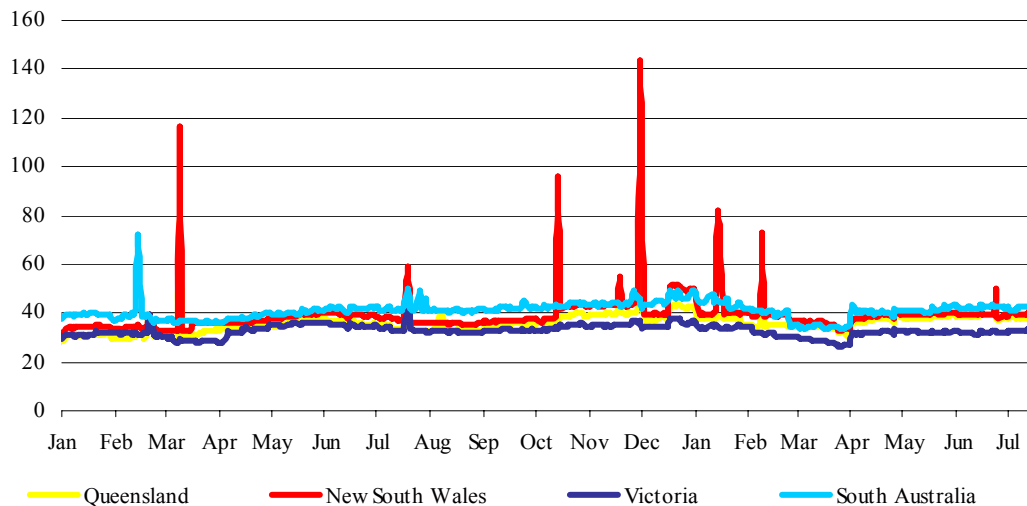
Spot prices peaked at \$141/MWh in South Australia, \$131/MWh in New South Wales and \$128/MWh in Victoria all on Tuesday evening. In Tasmania the spot price peaked at \$124/MWh on Friday while in Queensland, spot price peaked at \$68/MWh on Sunday.

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	37.89	37.42	37.17	37.24	37.27
New South Wales	39.71	40.22	38.79	38.88	38.78
Victoria	32.90	33.46	32.83	33.08	32.84
South Australia	42.31	42.96	42.23	42.00	41.57

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

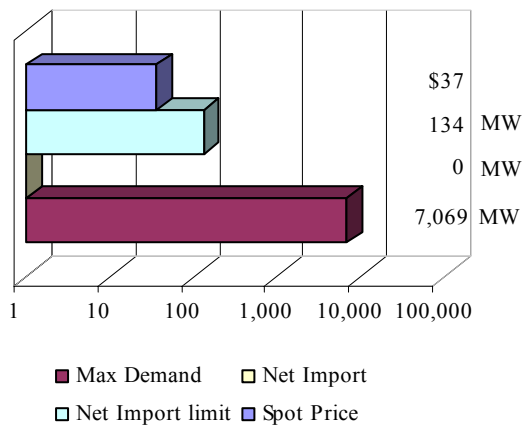


Figure 12: New South Wales

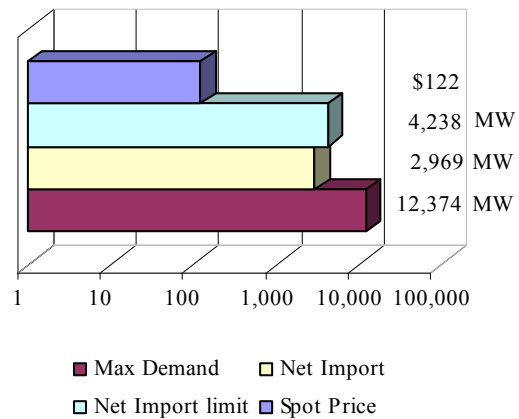


Figure 13: Victoria

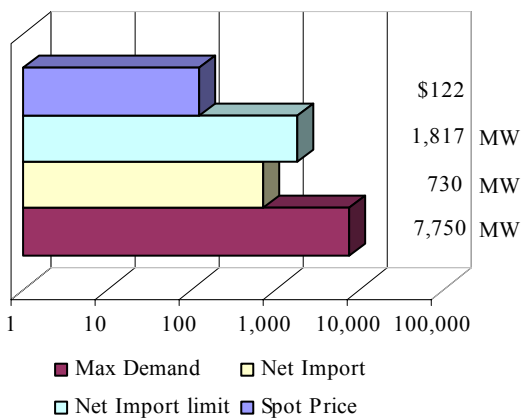
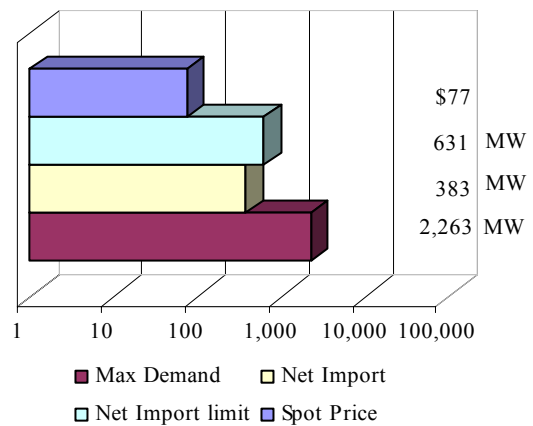


Figure 14: South Australia



In Tasmania the demand reached a maximum of 1,616MW on Friday morning. The spot price at the time reached \$117/MWh.

Price variations

There were 39 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

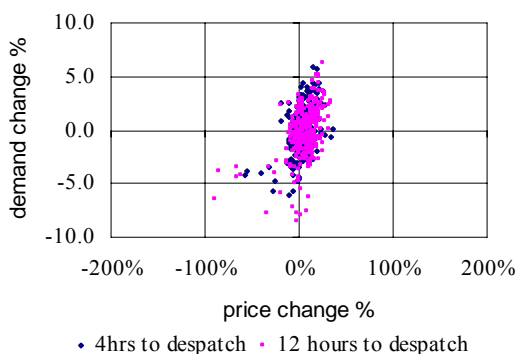


Figure 16: New South Wales

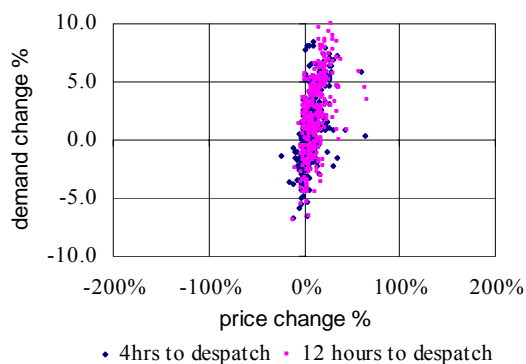


Figure 17: Victoria

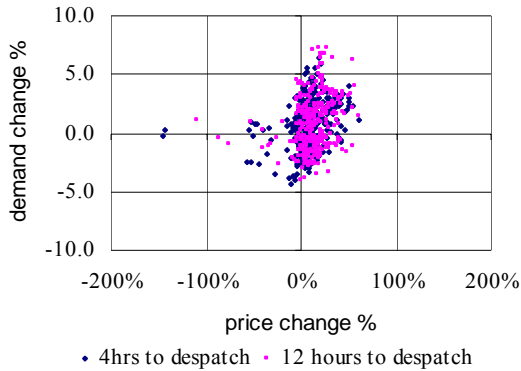


Figure 18: South Australia

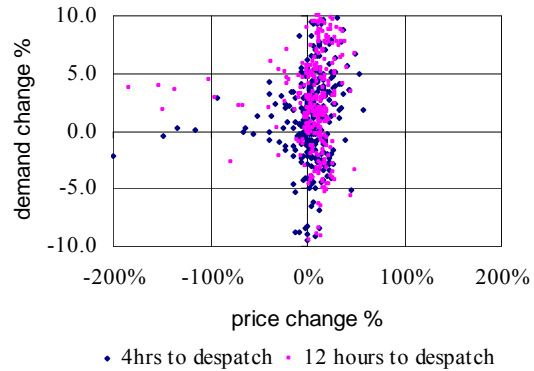


Figure 19: Tasmania

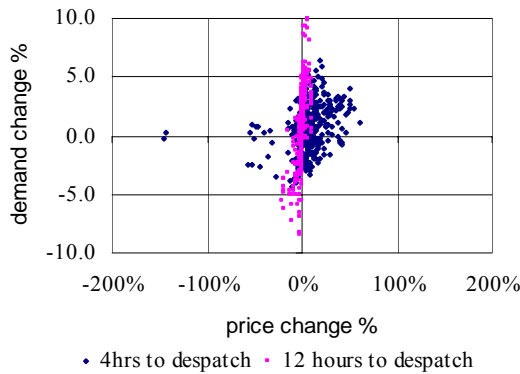
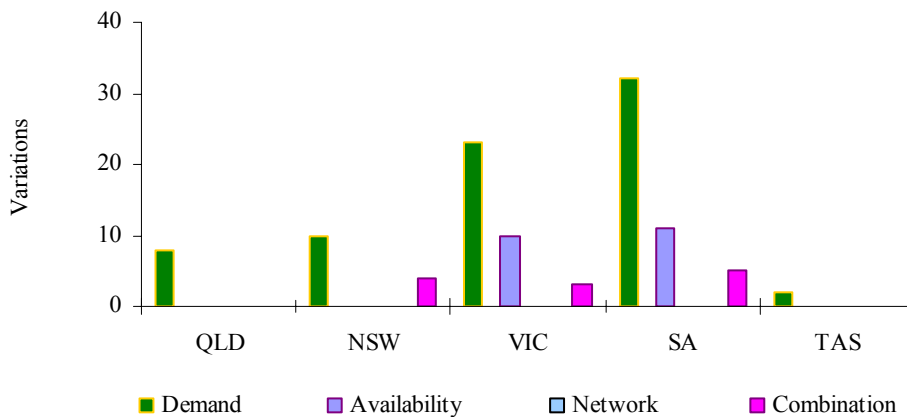


Figure 20 summarises the number and most probable reason for variations between forecast and actual prices.

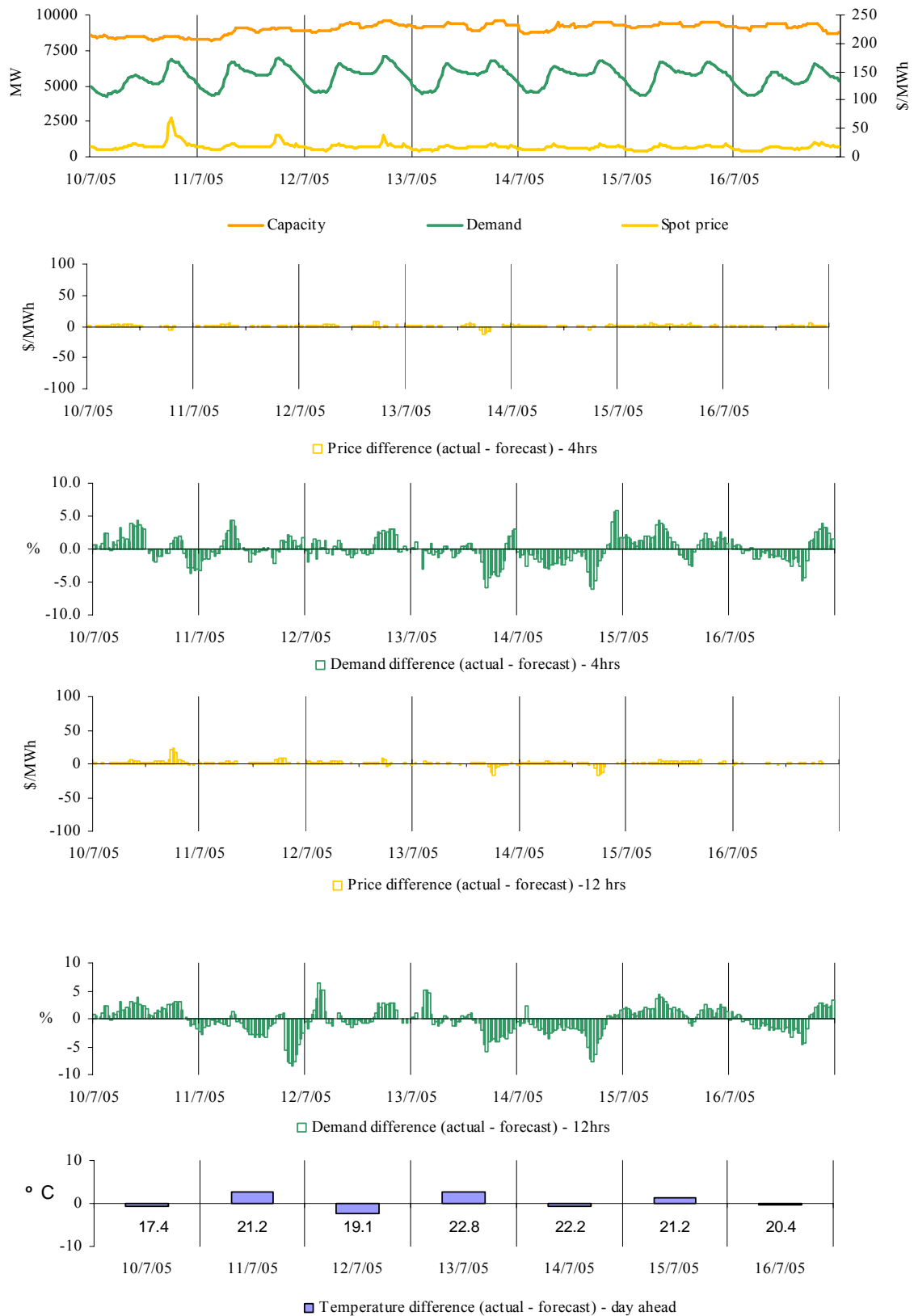
Figure 20: reasons for variations between forecast and actual prices



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



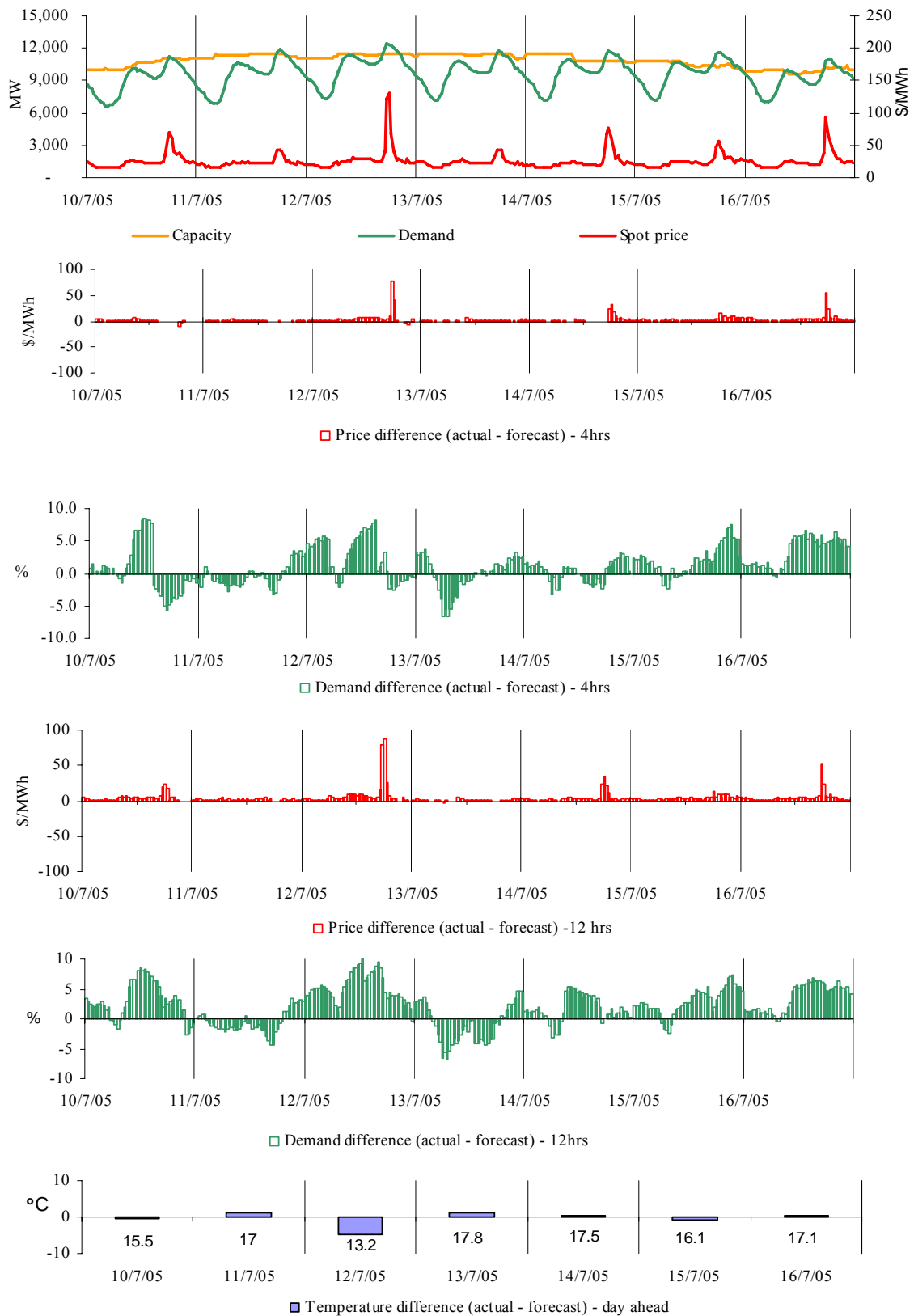
There were 3 occasions in Queensland where the spot price was greater than three times the weekly average price of \$18/MWh. These occurred between 6pm and 7pm on Sunday.

Sunday, 10 July

6:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	58.05	57.42	37.67
Demand (MW)	6,655	6,594	6,481
Available capacity (MW)	8,446	8,446	8,446
6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	68.00	67.61	44.52
Demand (MW)	6,842	6,752	6,651
Available capacity (MW)	8,446	8,446	8,446
7:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	59.07	65.37	42.53
Demand (MW)	6,817	6,699	6,599
Available capacity (MW)	8,446	8,446	8,446

Conditions at the time saw demand around 100MW higher than forecast four hours to despatch, with prices close to forecast and at the highest level for the week. There was no significant rebidding.

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



There were 3 occasions in New South Wales where the spot price was greater than three times the weekly average price of \$26/MWh. These occurred at 6pm and 6.30pm on Tuesday and at 6pm on Saturday.

Tuesday, 12 July

6:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	122.07	44.62	42.89
Demand (MW)	12,374	12,322	11,823
Available capacity (MW)	11,543	11,543	11,543
6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	130.66	91.17	43.13
Demand (MW)	12,358	12,644	11,939
Available capacity (MW)	11,543	11,543	11,543

Conditions at the time saw demand close to forecast, with prices aligned with Victoria.

At 3.49pm, Macquarie Generation rebid 490MW of capacity from prices of \$14/MWh, shifting 290MW of this capacity to prices of around \$250/MWh and 200MW to prices of more than \$9,000/MWh. The rebid reason given was “RP/Volume Tradeoff – Sensitivities have changed”.

From 4.08pm, Delta Electricity shifted a total of 150MW of capacity across Munmorah and Vales Point from prices of less than \$30/MWh to prices above \$7,000/MWh. The rebid reason given was “Demand >> Forecast::Band shift”.

At 5.11pm, Eraring Energy shifted a total of 100MW from prices of less than \$30/MWh to prices above \$8,000/MWh. The rebid reason given was ‘F: RRP/MW Tradeoff bandshift up’.

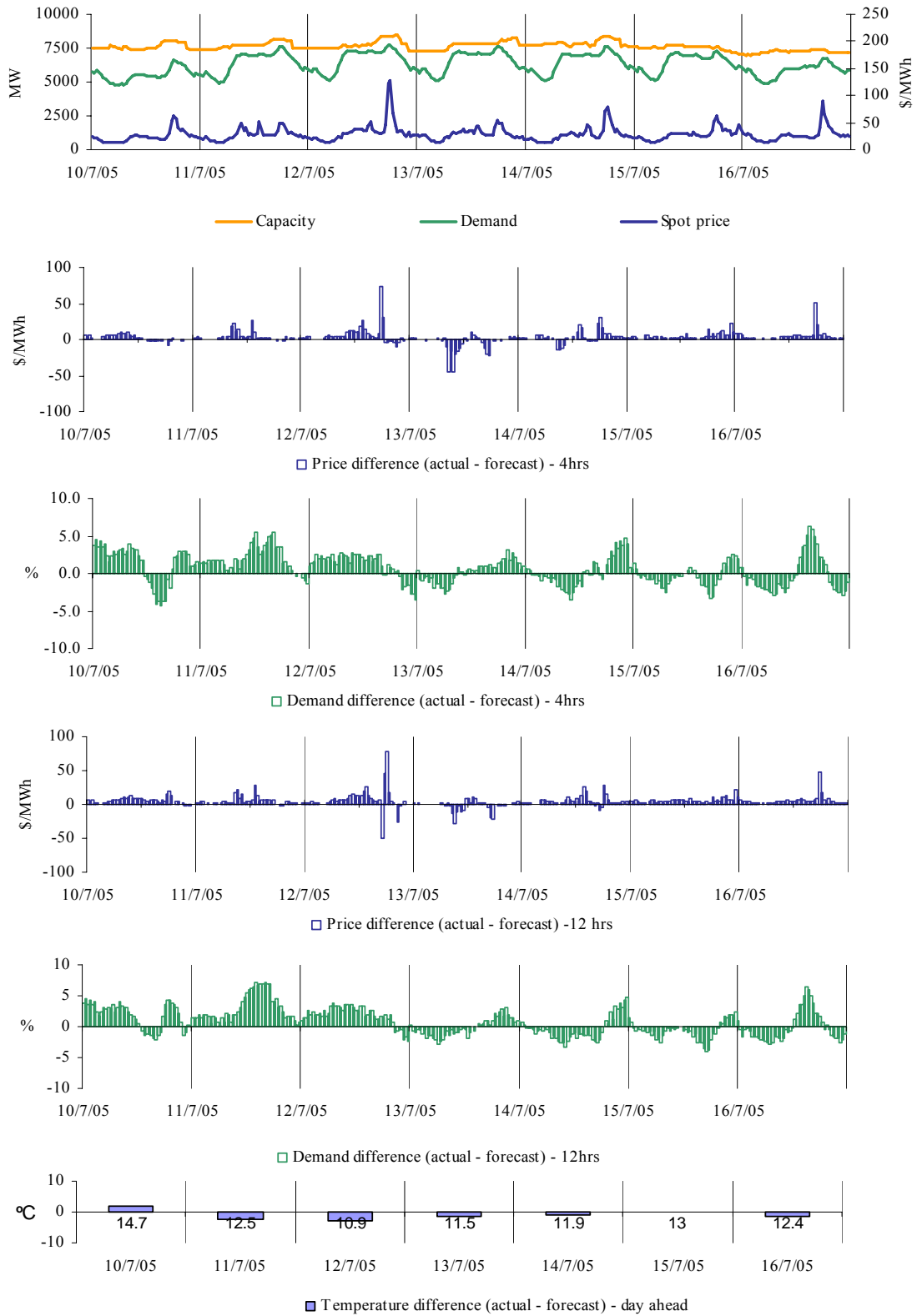
There was no other significant rebidding.

Saturday, 16 July

6:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	91.97	37.42	38.67
Demand (MW)	10,791	10,158	10,156
Available capacity (MW)	10,220	10,290	10,330

Conditions at the time saw demand more than 600MW higher than forecast four hours to despatch, with prices aligned across the southern mainland regions. There was no significant rebidding.

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



There were 3 occasions in Victoria where the spot price was greater than three times the weekly average price of \$29/MWh. These occurred at 6pm and 6.30pm on Tuesday and at 6pm on Saturday.

Tuesday, 12 July

6:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	121.72	48.64	76.17
Demand (MW)	7,750	7,660	7,628
Available capacity (MW)	8,363	8,424	7,959
6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	127.91	96.63	50.64
Demand (MW)	7,719	7,654	7,611
Available capacity (MW)	8,358	8,339	7,959

Conditions at the time saw demand slightly higher than forecast, with prices aligned with New South Wales. Demand peaked at 7,750MW at 6pm, a new winter record for Victoria.

Over a number of rebids through out the day, International Power reduced the availability at Hazelwood by as much as 276MW from the levels forecast at the beginning of the day. Most of this capacity was priced at less than \$20/MWh. The rebid reasons included “Draft plant limit”, “Firing plant limit”, “Plant limit relieved”, “Fuel limitation”, and “Revised rate of run up capacity”.

There was no other significant rebidding.

Saturday, 16 July

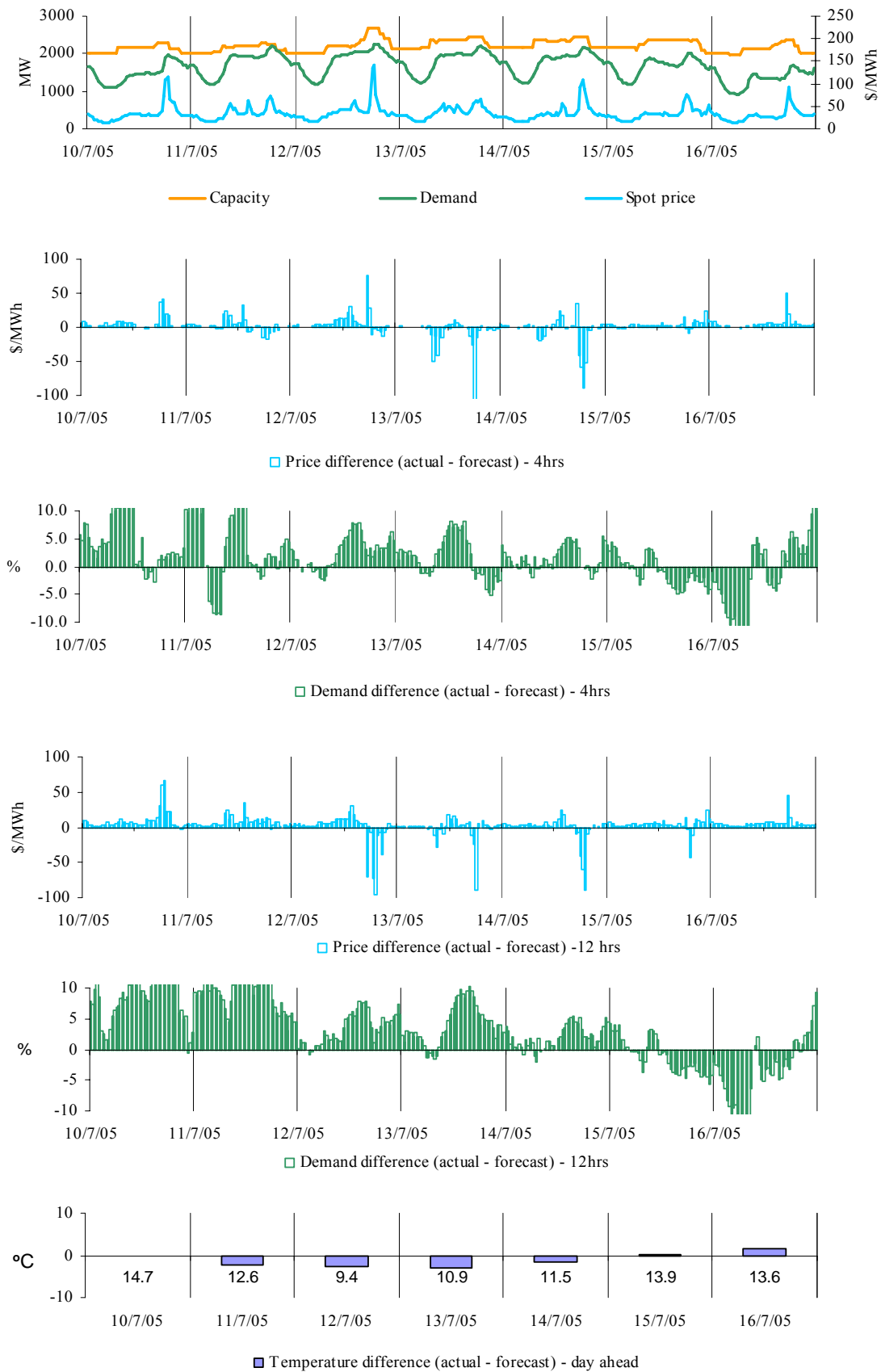
6:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	90.42	40.37	41.70
Demand (MW)	6,709	6,558	6,562
Available capacity (MW)	7,354	7,300	7,509

Conditions at the time saw demand higher than forecast with prices aligned with New South Wales.

Over a number of rebids throughout the day, International Power reduced the available capacity across Hazelwood by as much as 280MW from the availability at the beginning of the day. Most of this capacity was priced at less than \$20/MWh. The rebid reasons included “Draft plant limit”, “Firing plant limit”, “Fuel limitation”, “Unit stable limit”, “Mill limit”, “Fuel quality”, “Dust limit”, “Fuel limit” and “Plant limit relieved”.

There was no other significant rebidding.

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



There were 3 occasions in South Australia where the spot price was greater than three times the weekly average price of \$36/MWh. These occurred at 7pm on Sunday and between 6pm and 6.30pm on Tuesday.

Sunday, 10 July

7:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	115.68	74.03	48.44
Demand (MW)	1,962	1,923	1,703
Available capacity (MW)	2,285	2,285	2,165

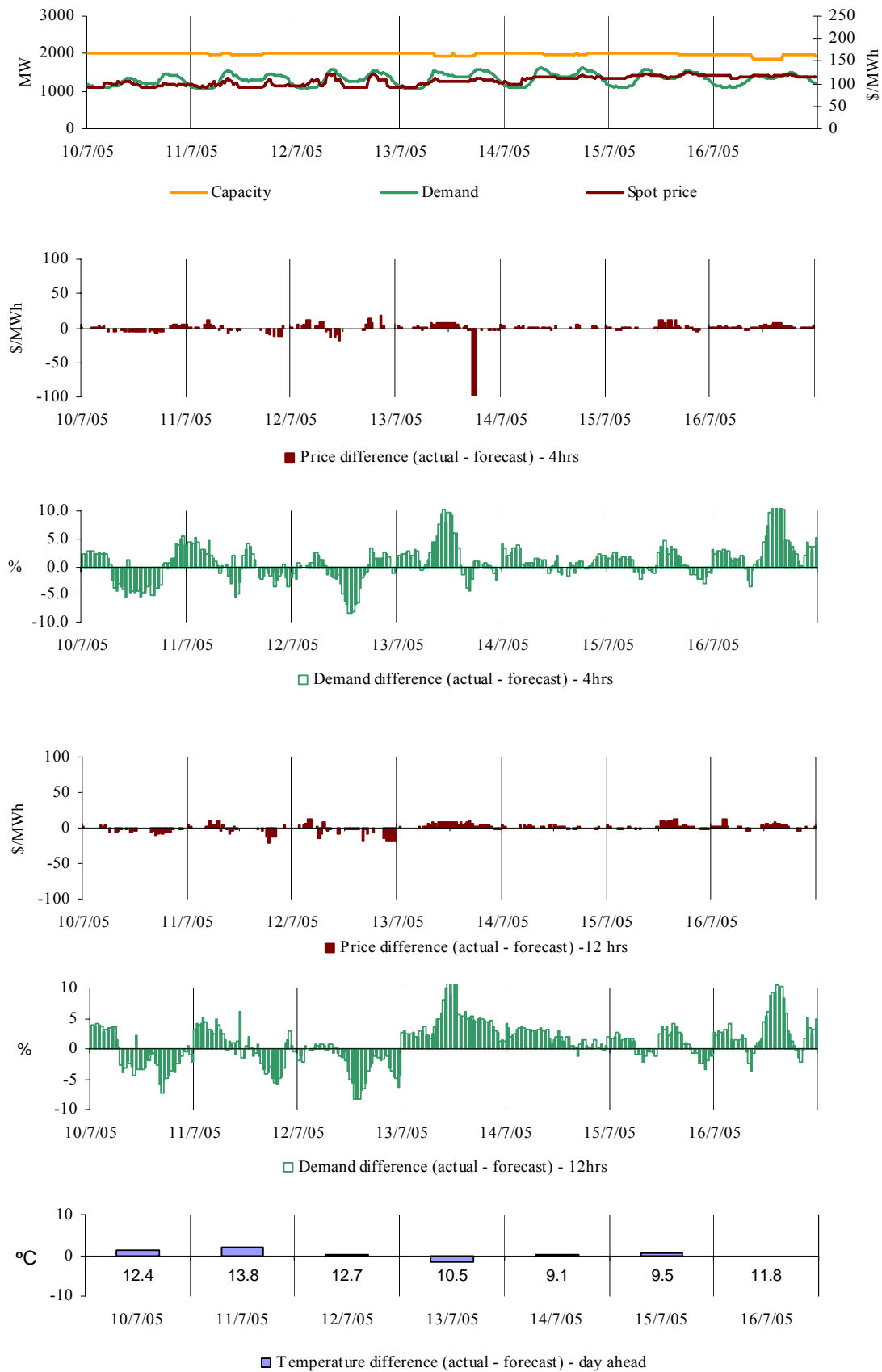
Conditions at the time saw demand close to forecast. Delays in the return of transmission elements in Victoria, following a planned network outage, limited flows across the Victoria to South Australia interconnector to 250MW, around 150MW less than that forecast. There was no significant rebidding.

Tuesday, 12 July

6:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	133.50	57.13	132.36
Demand (MW)	2,148	2,107	2,125
Available capacity (MW)	2,680	2,670	2,336
6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	141.15	113.43	149.00
Demand (MW)	2,244	2,169	2,173
Available capacity (MW)	2,676	2,670	2,336

Conditions at the time saw demand close to forecast, with prices aligned with Victoria and close to those forecast 12 hours prior to despatch. Demand peaked at 2,263MW at 7pm, a new winter record for South Australia. There was no 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 \$107/MWh.

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

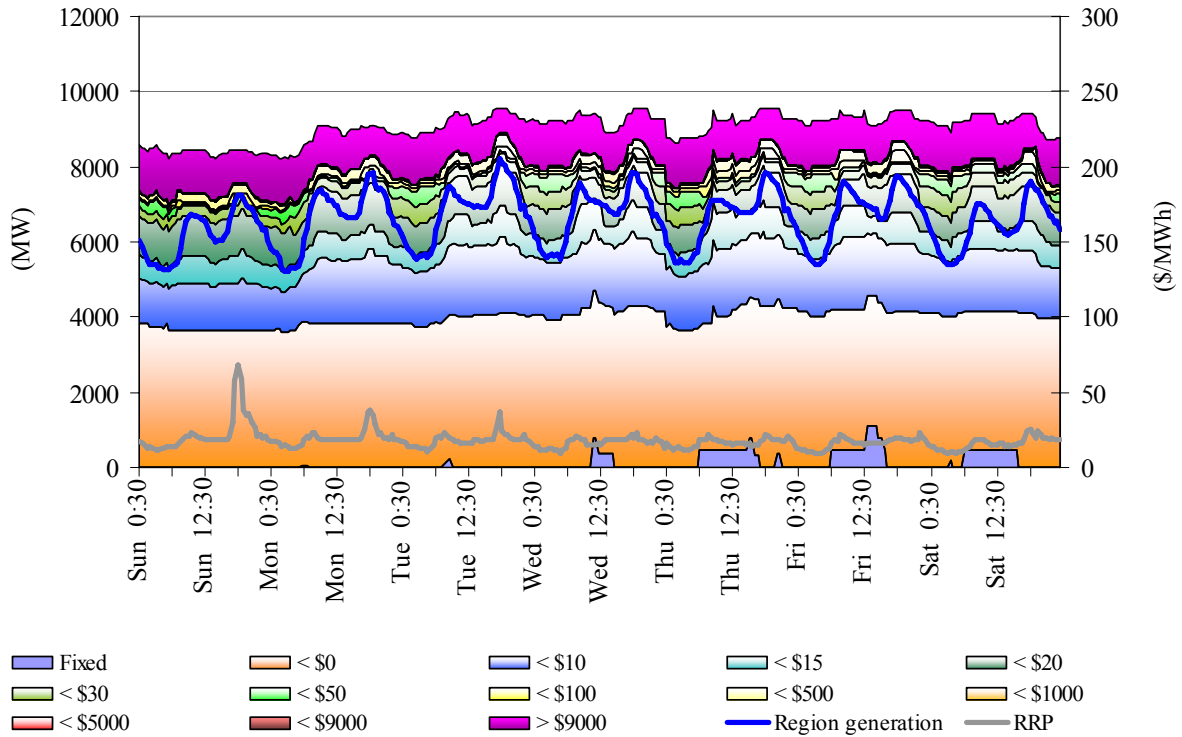


Figure 52: New South Wales closing bid prices, despatched generation and spot price

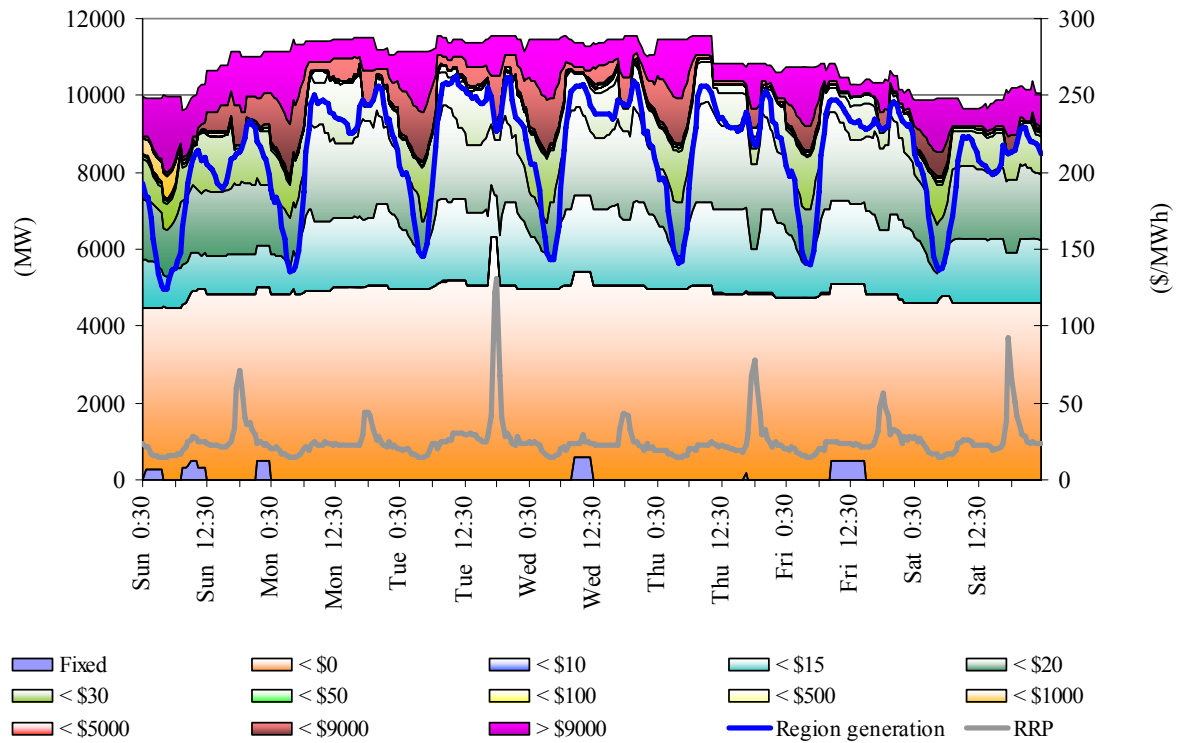


Figure 53: Victoria closing bid prices, despatched generation and spot price

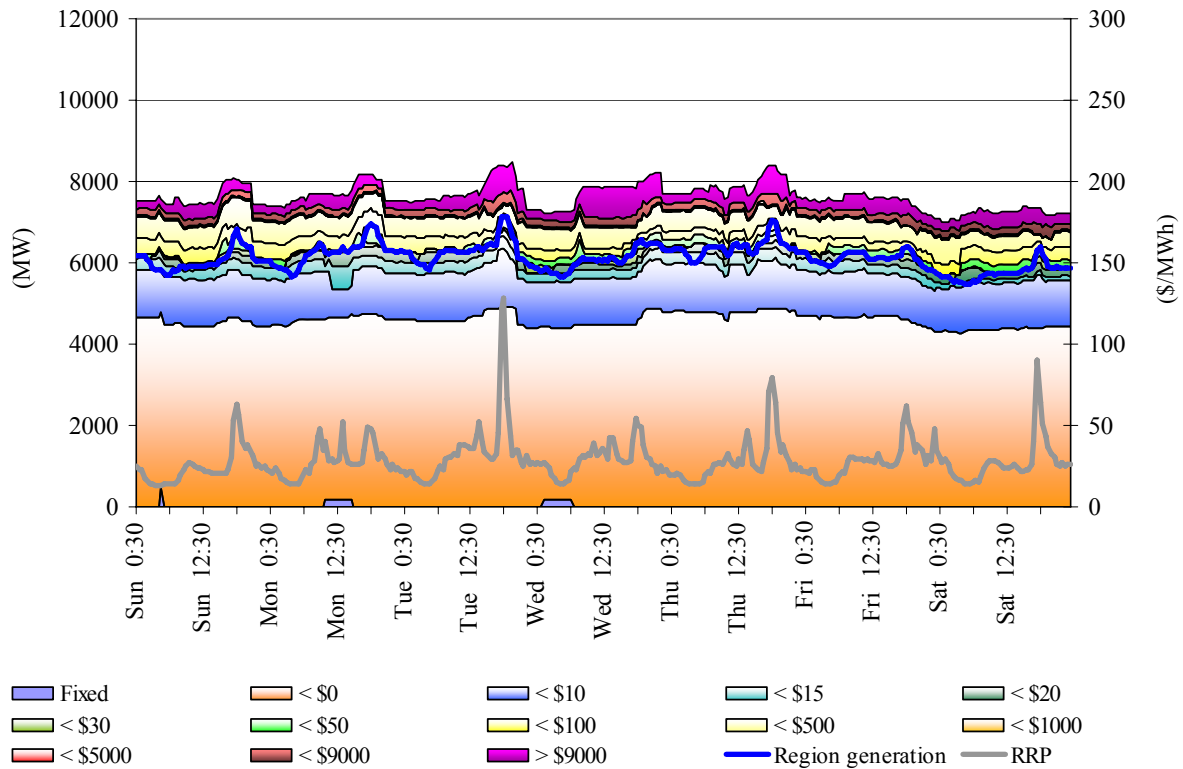


Figure 54: South Australia closing bid prices, despatched generation and spot price

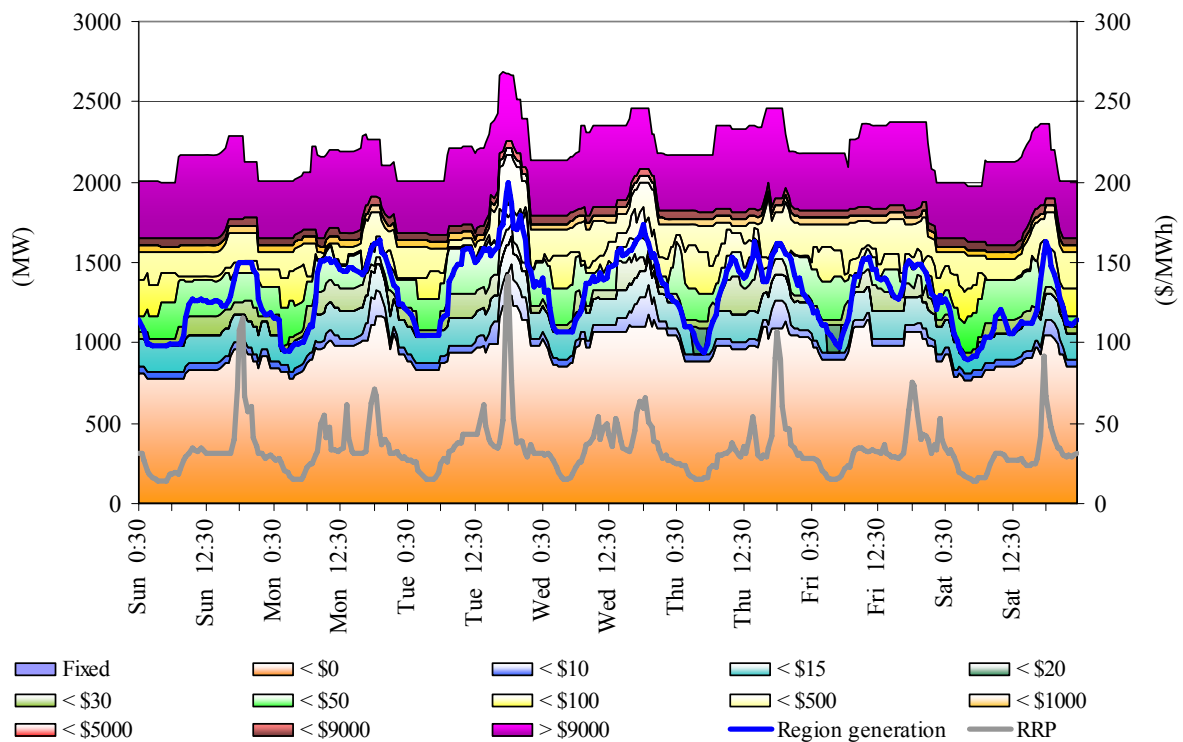
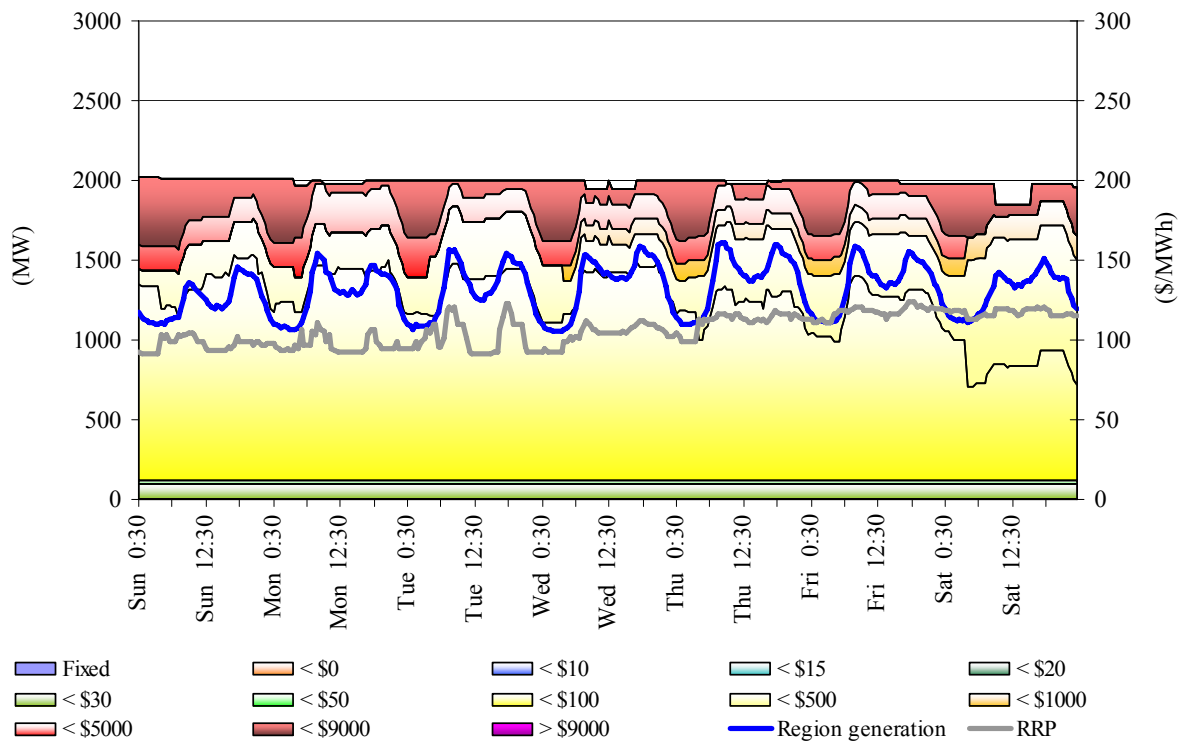


Figure 55: Tasmania closing bid prices, despatched generation and spot price



Ancillary service market

The total cost of ancillary services for the week was \$420,000 or 0.3 per cent of the total turnover in the energy market. A planned transmission outage in Victoria on Sunday resulted in an increased requirement for lower contingency services.

The cost for ancillary services in Tasmania totalled \$138,000 or 0.6 per cent of the energy market turnover for that region. Interruptions to the AGC status of units in Tasmania on Saturday – for the fifth time since Tasmania entered the market – resulted in zero despatch for both regulation services and prices at the market cap. 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 volume weighted average prices and costs for the eight frequency control ancillary services for Tasmania.

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 (\$)	1.36	0.51	0.85	0.96	0.18	1.45	2.26	1.60
Previous week(\$)	2.12	0.72	0.78	1.37	0.23	0.49	1.68	1.53
Last Quarter(\$)	2.43	0.81	0.99	1.07	0.23	0.96	2.96	1.51
Market Cost (\$1000s)	\$67	\$25	\$56	\$23	\$1	\$16	\$56	\$38
% of energy market	0.07%	0.02%	0.06%	0.02%	0.00%	0.02%	0.06%	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 (\$)	2.75	1.05	1.06	1.28	1.06	1.05	1.05	1.05
Previous week(\$)	2.26	1.05	1.05	1.43	1.05	1.05	1.05	1.05
Market Cost (\$1000s)	\$27	\$10	\$12	\$11	\$13	\$31	\$26	\$9
% of energy market	0.11%	0.04%	0.05%	0.05%	0.06%	0.13%	0.11%	0.04%

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

Figure 58: daily frequency control ancillary service costs

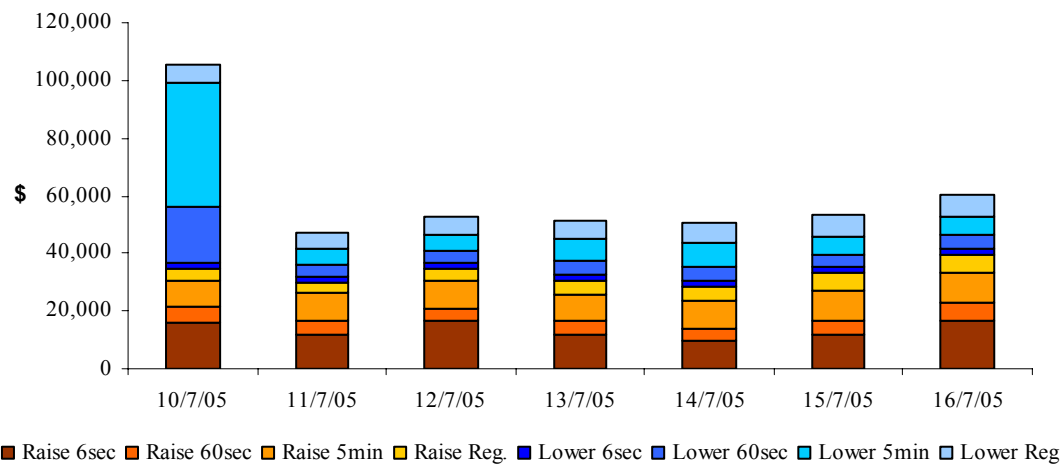
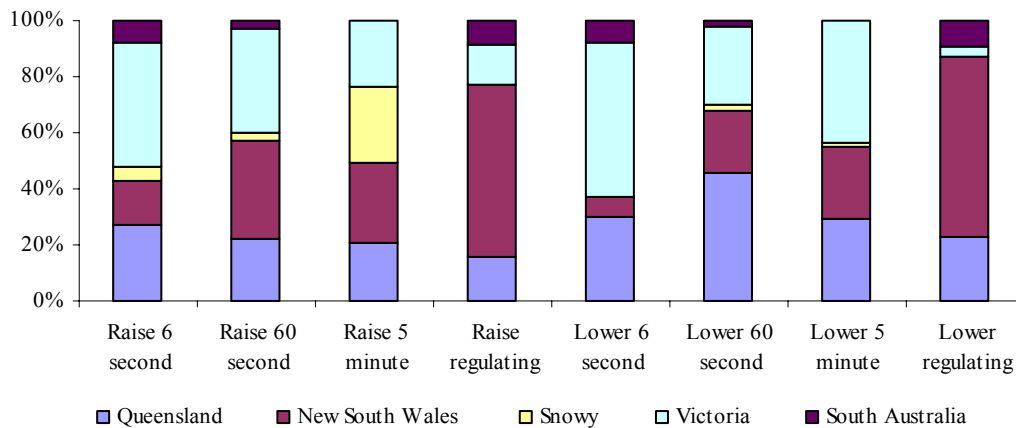


Figure 59 shows the regional weekly participation in each of the ancillary service markets on the mainland.

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

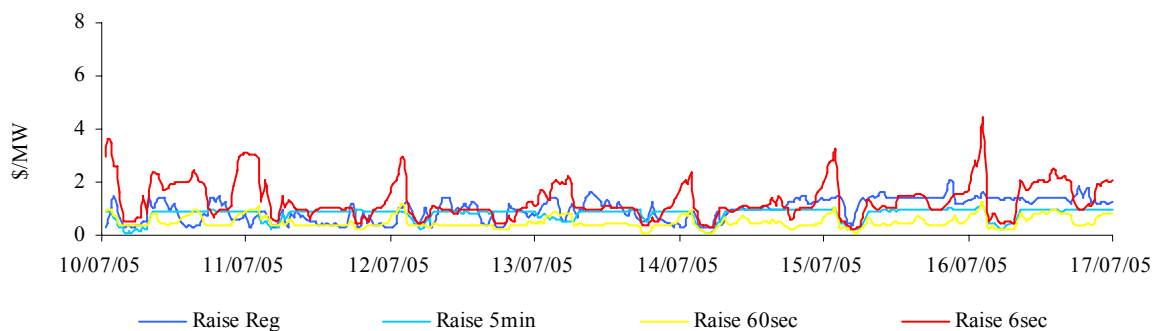


Figure 60A: prices for raise services - Tasmania

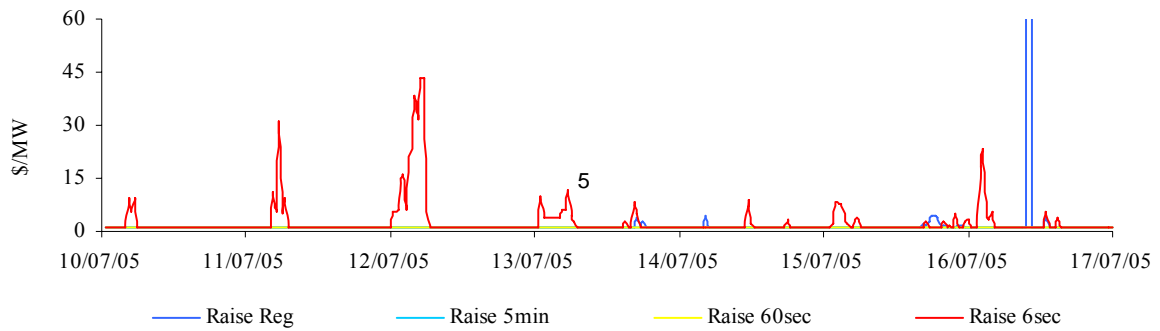


Figure 61: prices for lower services

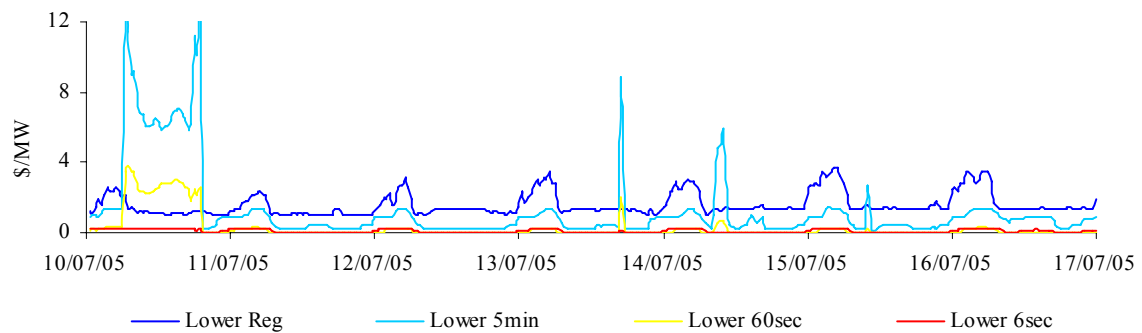
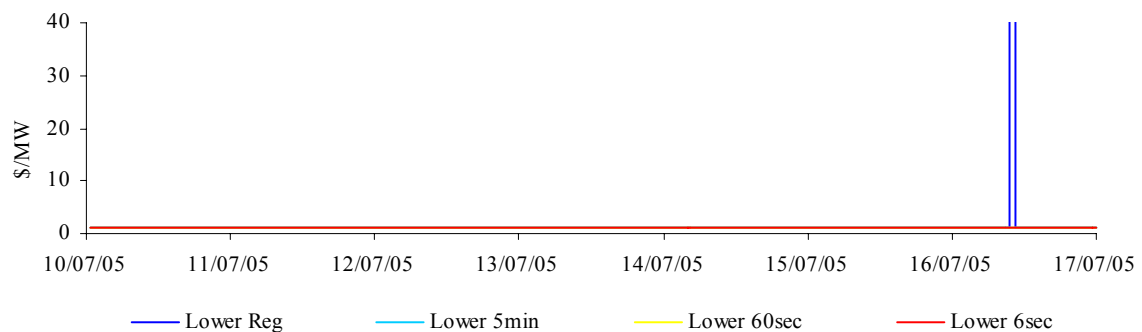


Figure 61A: prices for lower services - Tasmania



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

Figure 62: raise requirements

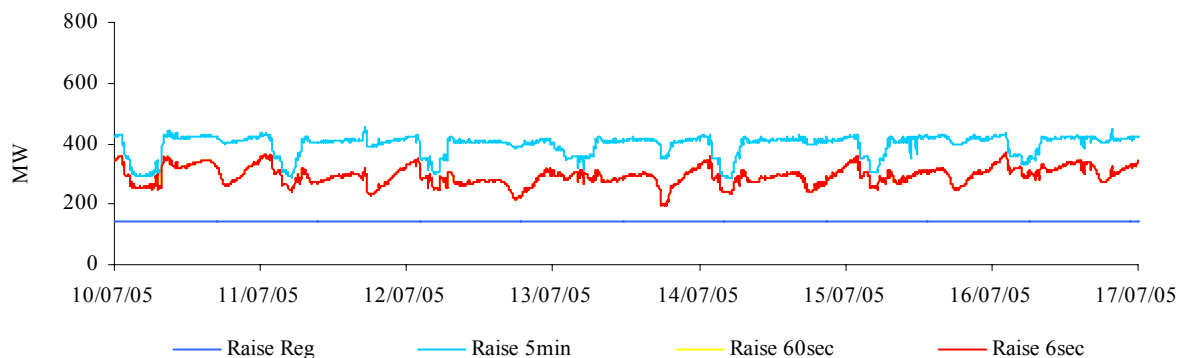


Figure 62A: raise requirements - Tasmania

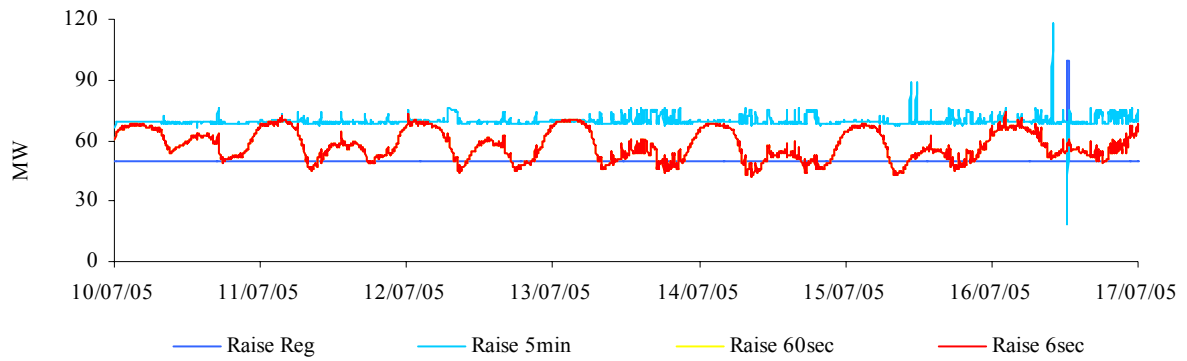


Figure 63: lower requirements

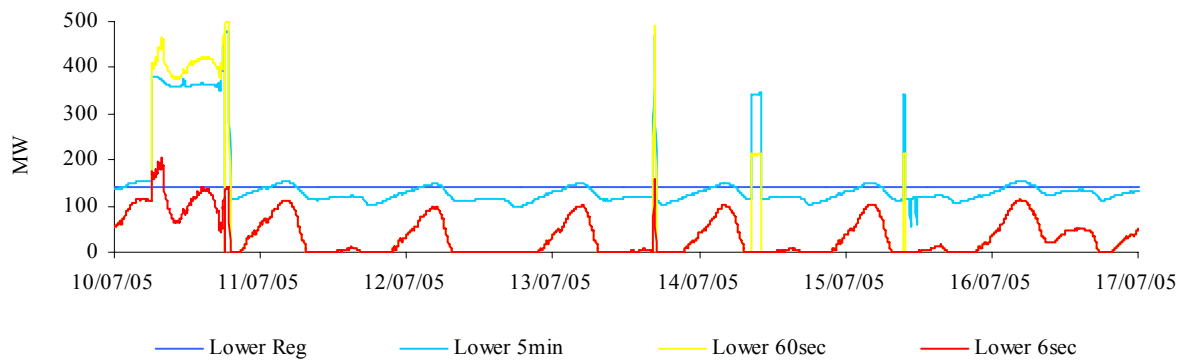


Figure 63A: lower requirements - Tasmania

