

Spot prices for the week averaged \$33/MWh in South Australia, \$26/MWh in Victoria, \$25/MWh in New South Wales and \$22/MWh in Queensland. These prices represent a reduction from the previous week, consistent with a reduction in demand.

In Tasmania the spot price averaged \$101/MWh. This represented an increase of almost a quarter compared to the previous week. A reduction in available capacity priced at less than \$100/MWh on Thursday was the main contributor.

The price volatility index was below the longer term trend in all regions, with the index in Tasmania around double compared to the previous week.

Turnover in the energy market was around \$118 million, while the total cost of ancillary services for the week was \$644,000 or 0.6 per cent of the total turnover in the energy market. The cost for ancillary services in Tasmanian totalled \$224,000 or 1 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 40 per cent of trading intervals in Tasmania and 20 per cent across the market. Significant variations between forecast and actual prices occurred in 53 or 16 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 date. 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	22	25	26	33	101
Previous week	33	46	28	33	83
Same quarter last year	29	33	31	34	-
Financial year 2004 - 05	31	46	29	39	-
% change from previous week	▼35%	▼45%	▼6%	0%	▲22%
% change from same quarter last year	▼25%	▼23%	▼16%	▼4%	-
% change from 2003 - 04	▼1%	▲24%	▲7%	0%	-

Figure 2: national demand and spot prices

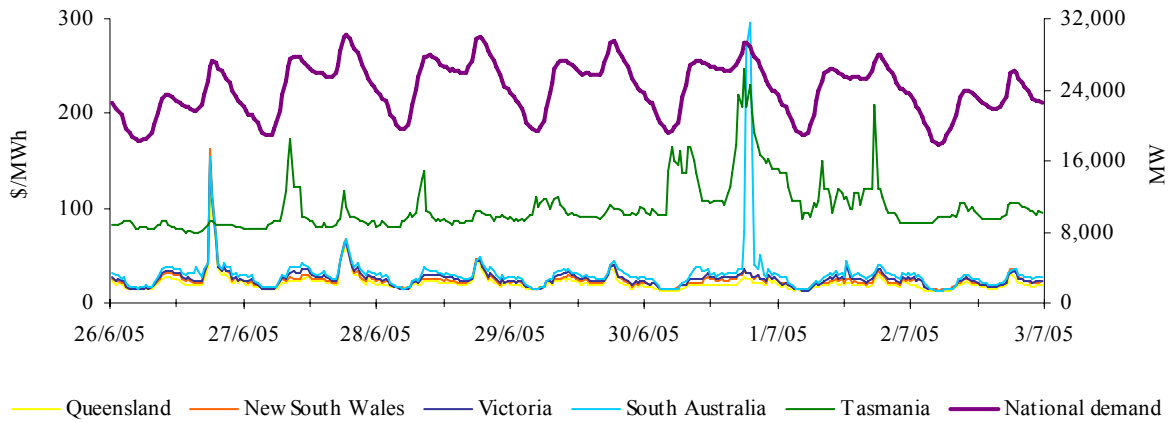


Figure 3: volatility index during peak periods

	QLD	NSW	VIC	SA	TAS
Last week	0.35	0.35	0.41	0.43	0.56
Previous week	0.71	0.66	0.41	0.37	0.25
Same quarter last year	0.68	0.76	0.66	0.60	-

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

Figure 4: Queensland

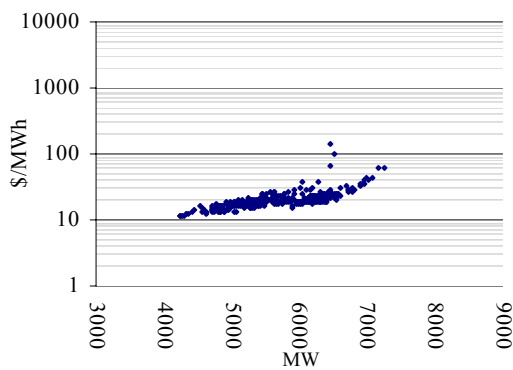


Figure 5: New South Wales

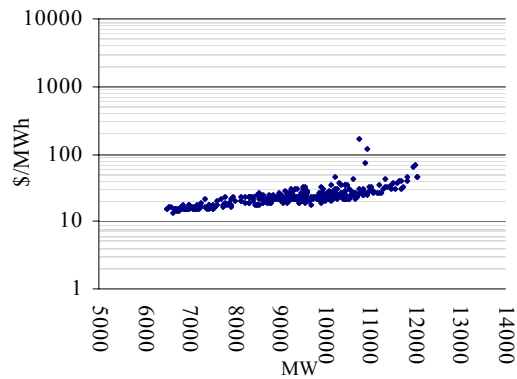


Figure 6: Victoria

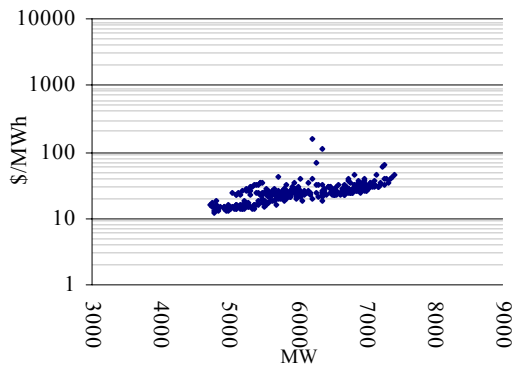


Figure 7: South Australia

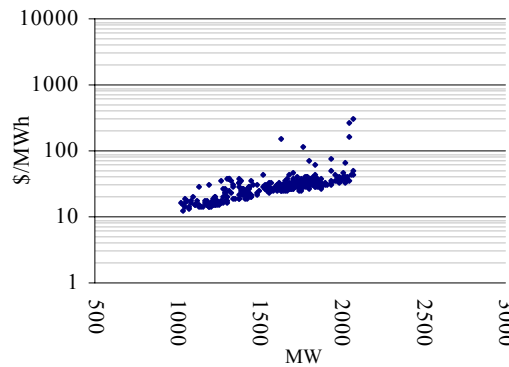
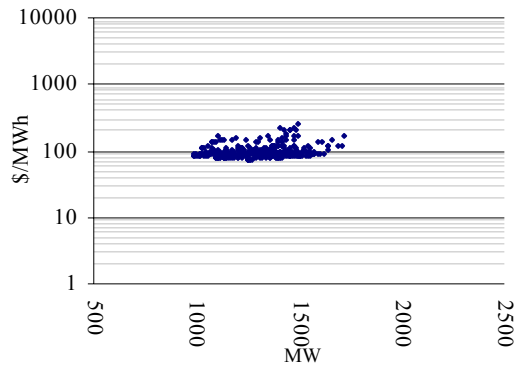


Figure 8: Tasmania



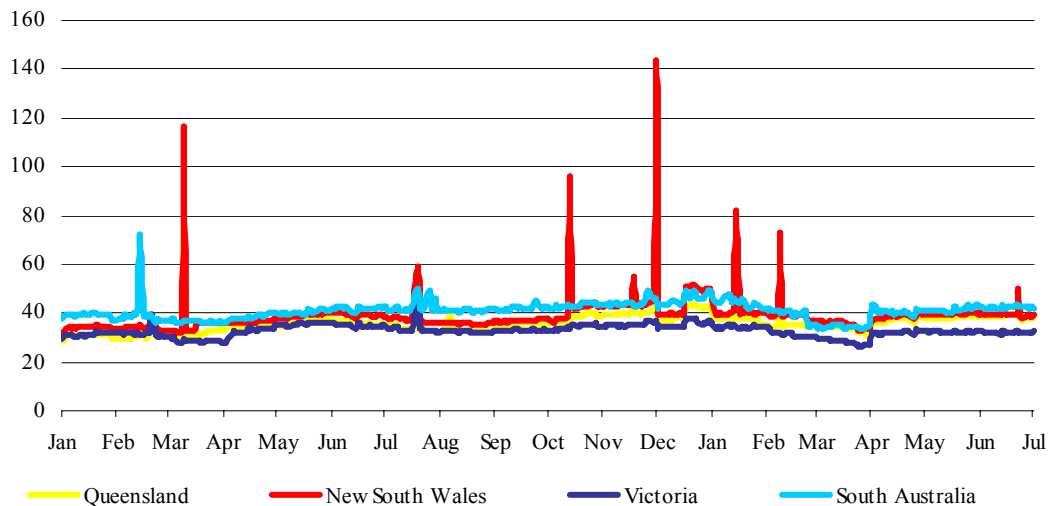
Spot prices peaked at \$295/MWh in South Australia on Thursday evening and at \$248/MWh in Tasmania the same day. Spot prices peaked in the other regions on Sunday evening at around \$150/MWh.

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	38.07	38.34	38.17	37.34	38.92
New South Wales	38.85	39.05	38.53	38.44	39.56
Victoria	32.19	32.19	31.85	31.73	32.73
South Australia	42.46	42.43	42.09	42.56	41.80

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

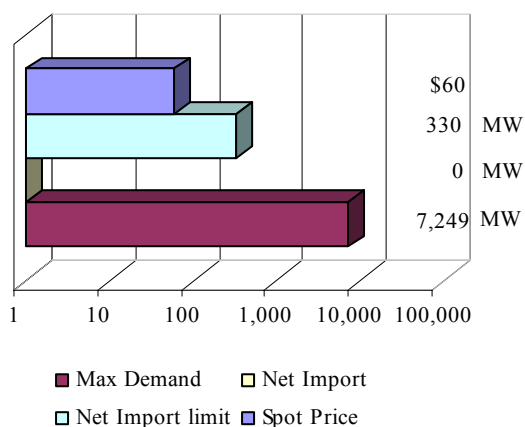


Figure 12: New South Wales

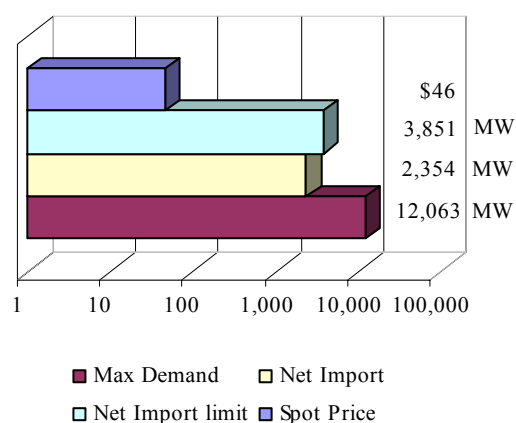


Figure 13: Victoria

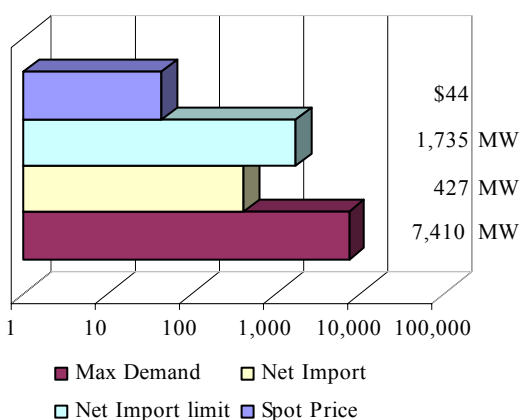
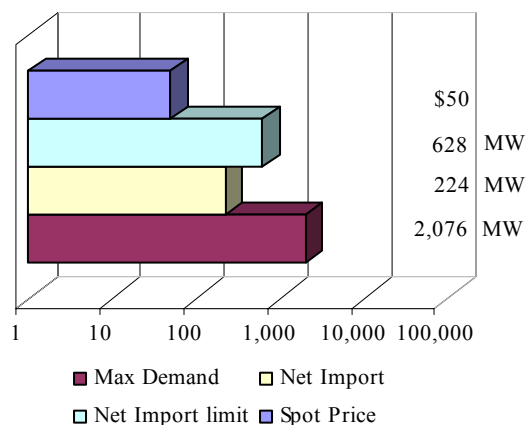


Figure 14: South Australia



In Tasmania the demand reached a maximum of 1,718MW on Monday morning, the highest since Tasmania joined the market and close to the record set last winter of 1,728MW. The spot price at the time reached \$173/MWh.

Price variations

There were 53 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

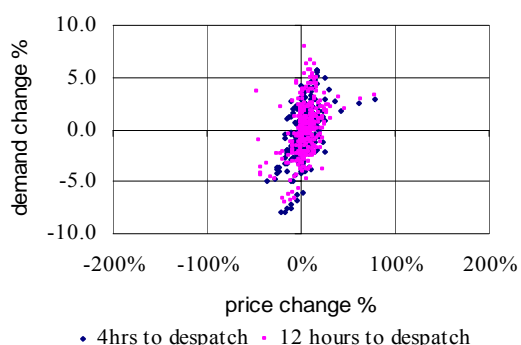


Figure 16: New South Wales

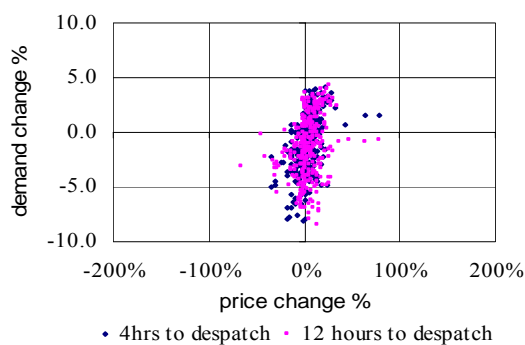


Figure 17: Victoria

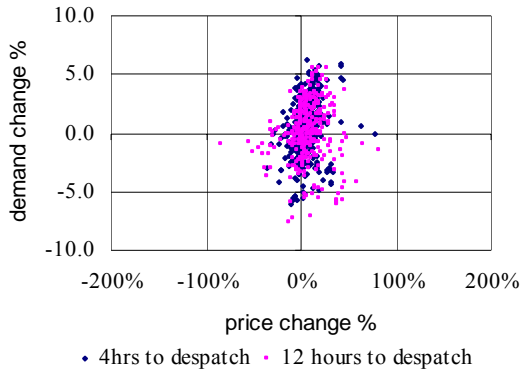


Figure 18: South Australia

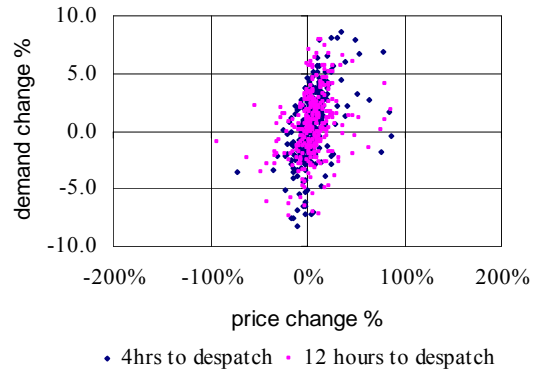


Figure 19: Tasmania

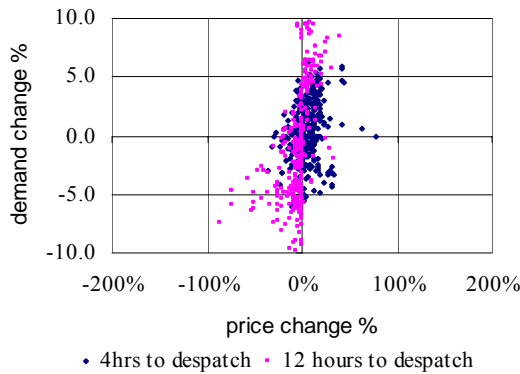
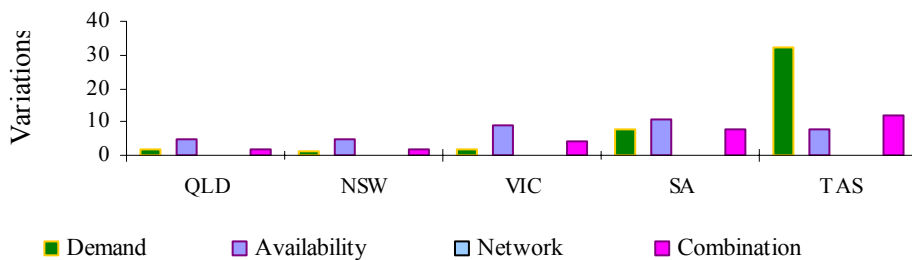


Figure 20 summarises the number and most probable reason for variations between forecast and actual prices.

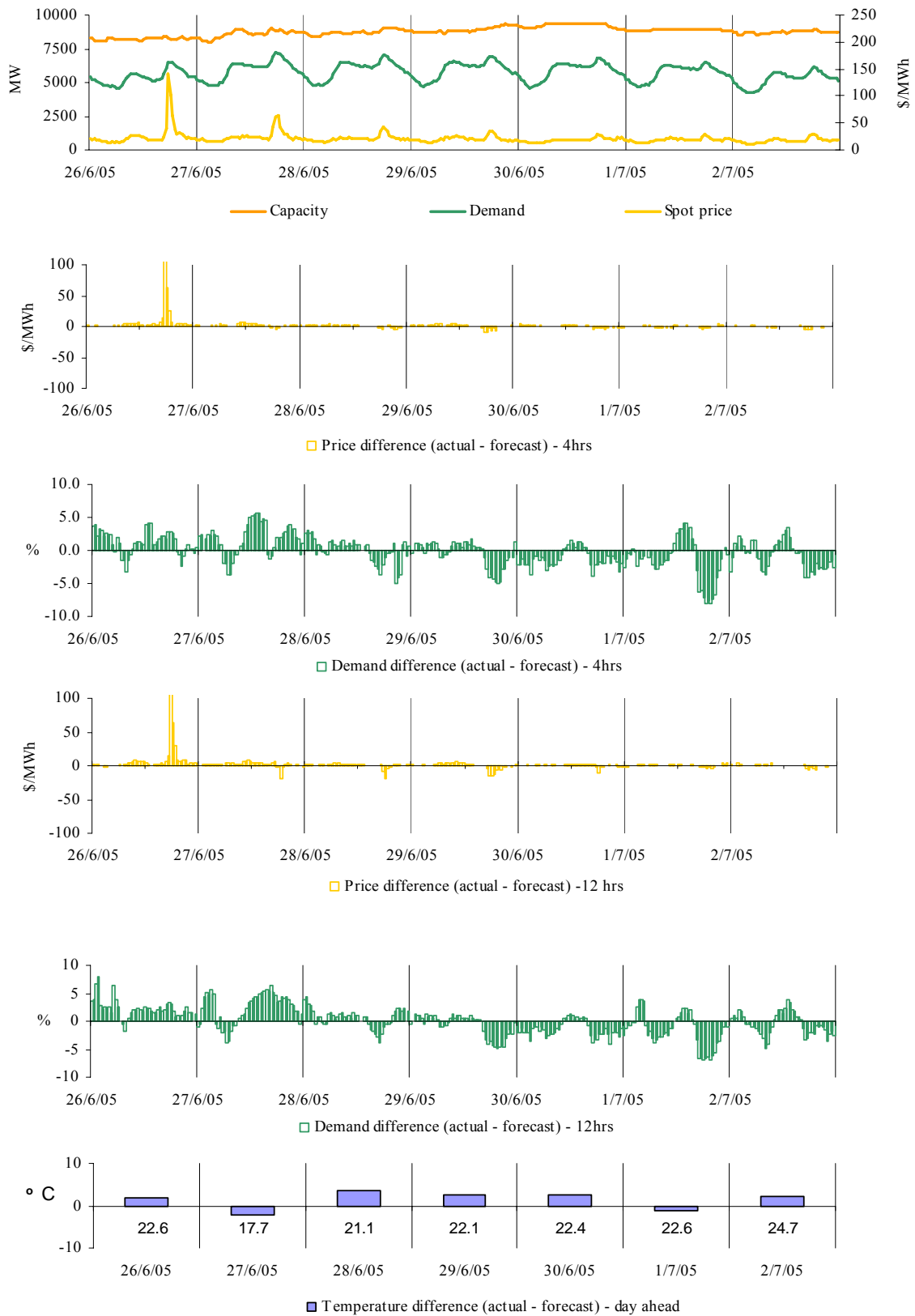
Figure 20: reasons for variations between forecast and actual prices



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



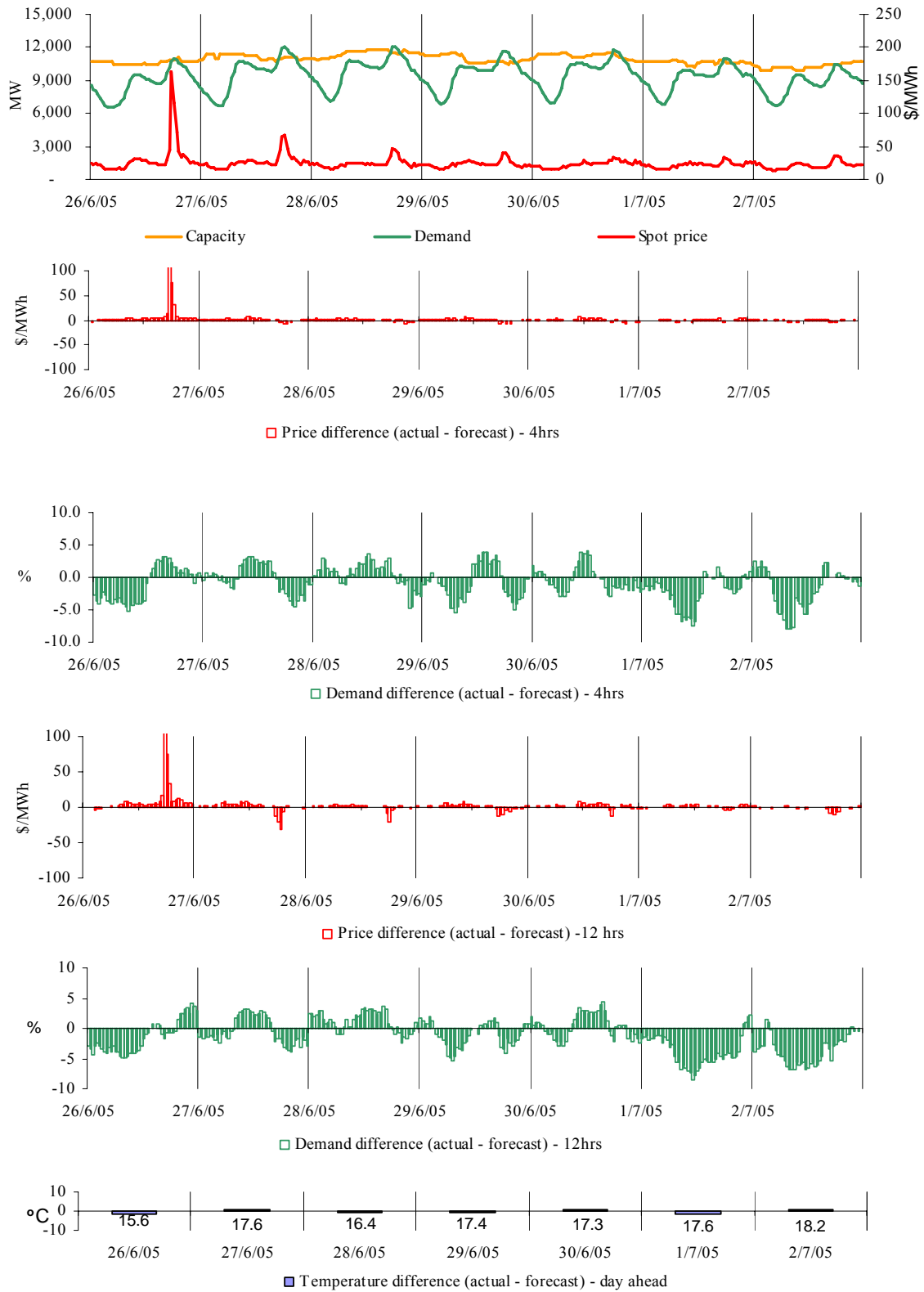
There was 2 occasions in Queensland where the spot price was greater than three times the weekly average price of \$22/MWh. These occurred at 6pm and 6.30pm on Sunday.

Sunday, 26 June

6:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	142.16	31.23	30.91
Demand (MW)	6,445	6,256	6,235
Available capacity (MW)	8,323	8,364	8,374
6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	101.18	37.71	37.11
Demand (MW)	6,532	6,368	6,337
Available capacity (MW)	8,231	8,364	8,374

Conditions at the time saw demand higher than the four hour ahead forecast, with prices aligned across the market. At 5.38pm, effective 5.45pm, Stanwell reduced the available capacity at Barron Gorge by a total of 60MW. All of this capacity was priced at zero. The rebid reason given was “Safety related incident in river”. There was no other significant rebidding.

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 \$25/MWh. These occurred at 6pm and 6.30pm on Sunday.

Sunday, 26 June

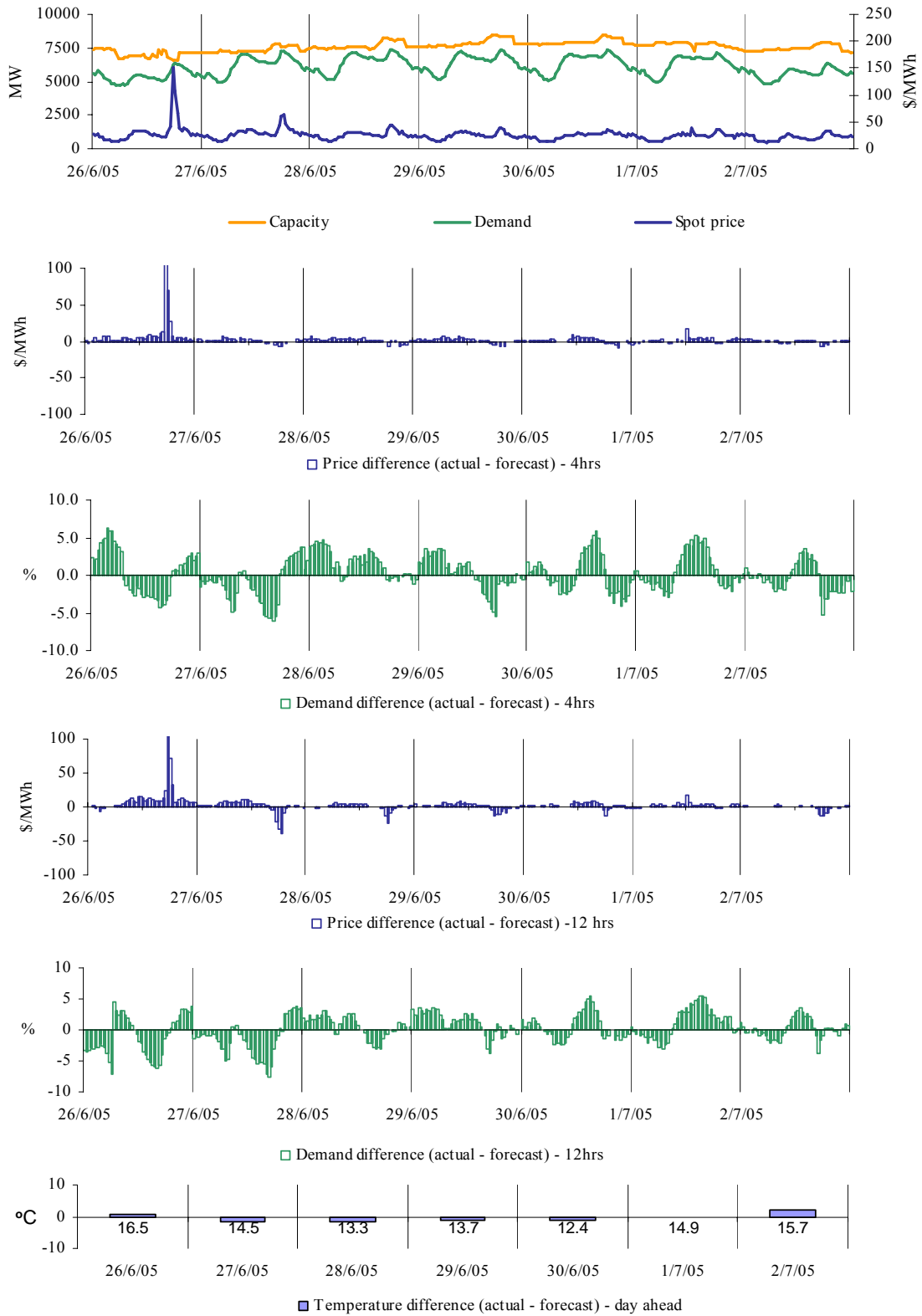
6:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	163.49	35.64	35.60
Demand (MW)	10,769	10,598	10,845
Available capacity (MW)	10,788	11,088	11,390
6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	116.95	42.00	41.71
Demand (MW)	10,937	10,762	11,030
Available capacity (MW)	10,888	11,088	11,390

Conditions at the time saw demand higher than the four hour ahead forecast, with prices aligned across the market.

Throughout the day, Delta Electricity reduced the available capacity across its portfolio through a number of rebids. At 9.08am the return to service of 300MW at Munmorah unit 3 was delayed - most of this capacity was priced at less than \$35/MWh. The rebid reason given was “RTS cancelled::capacity change”. Over two rebids at 4.25pm and 5.08pm, the return to service of Vales Point unit 6 was delayed, reducing its available capacity by up to 300MW. Most of this capacity was priced at less than \$35/MWh. The rebid reason given was “Unit RTS capacity change”. At 5.12pm, Vales Point unit 5 was bid inflexible at 400MW, effectively reducing availability by 260MW. By the end of the 6.30pm trading interval, the fixed load bid was increased by 70MW to 470MW. The rebid reason given on both occasions was “Stack emission”.

There was no other 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 at 6pm and 6.30pm on Sunday.

Sunday, 26 June

6:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	151.74	32.69	27.99
Demand (MW)	6,224	6,234	6,318
Available capacity (MW)	6,581	7,429	7,928
6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	108.24	38.78	37.13
Demand (MW)	6,370	6,334	6,430
Available capacity (MW)	6,600	7,364	7,928

Conditions at the time saw demand as forecast, with prices aligned across the market. Available capacity within Victoria was more than 1,300MW lower than the 12 hour forecast.

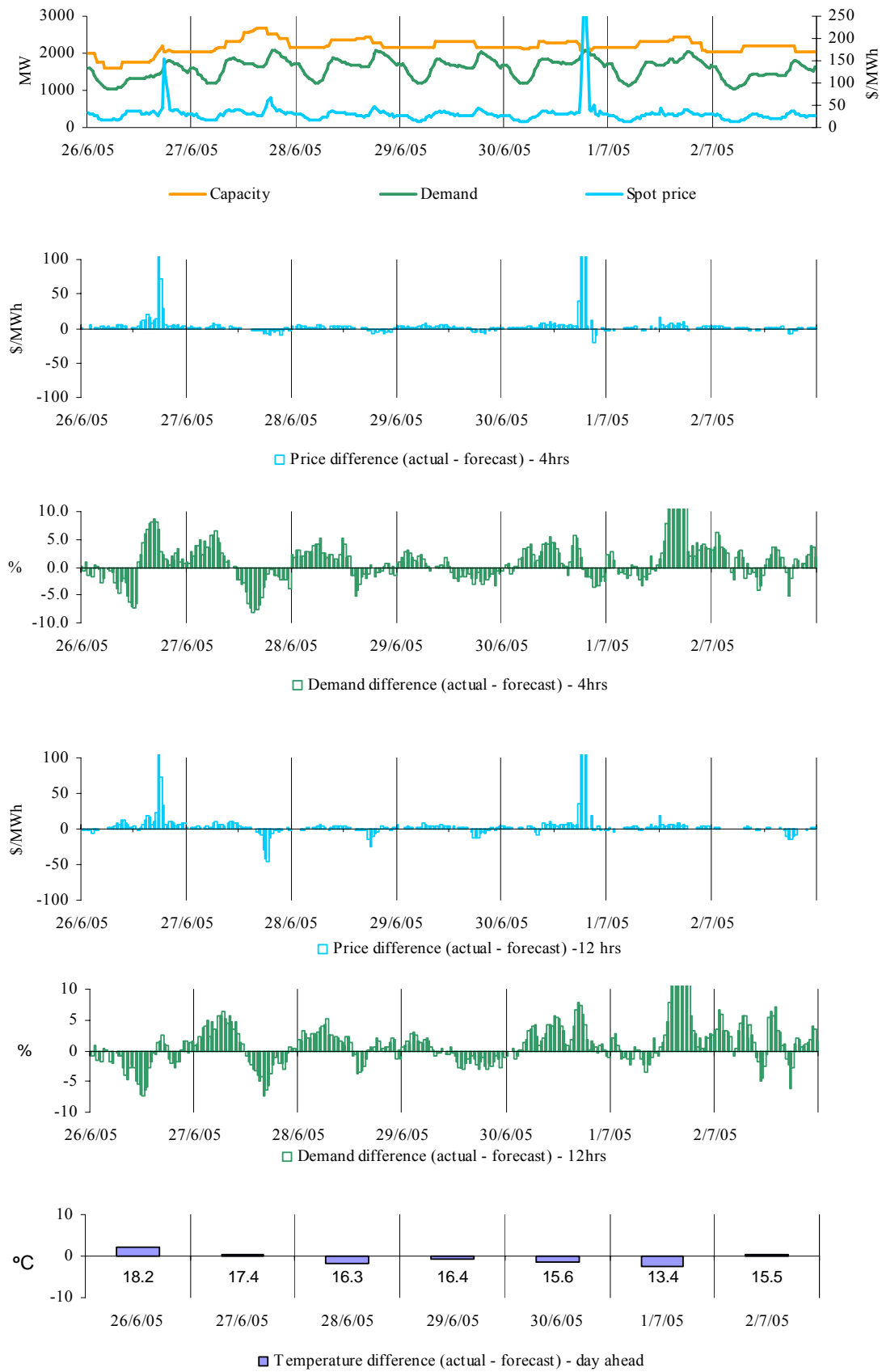
International Power reduced the available capacity across Hazelwood power station by around 400MW over a number of rebids between 4am and 9am. This reduction included 202MW at unit 2 following delays in its return to service. The rebid reasons given were “Firing plant limit”, “Revised synchronisation time” and “Emission limit”. Unit 2 returned to service the following Wednesday.

Delays in the return of Yallourn unit 4, following its loss the previous day, saw a reduction of 380MW of available capacity over two rebids at 11.40am and 3.18pm. The unit experienced a number of failed starts during the day. All of this capacity was priced at less than \$10/MWh. The rebid reason given was “Outage complete: increase availability” and “Unit outage: zero availability”. The unit returned to service late the following day.

Unit 1 at Loy Yang A was also delayed in its return, following an early morning outage, resulting in a further reduction of 580MW of available capacity during this period. All of this capacity was priced at less than \$20/MWh. The rebid reason given was “Unit run up at 16.58”. The unit returned to service later in the evening.

There was no other significant rebidding.

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



There were 5 occasions in South Australia where the spot price was greater than three times the weekly average price of \$33/MWh. These occurred at 6pm and 6.30pm on Sunday and between 6.30pm and 7.30pm on Thursday.

Sunday, 26 June

6:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	154.65	32.33	31.67
Demand (MW)	1,639	1,527	1,623
Available capacity (MW)	2,035	2,033	2,033
6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	112.91	41.13	40.08
Demand (MW)	1,765	1,717	1,790
Available capacity (MW)	2,054	2,053	2,053

Conditions at the time saw demand slightly higher than forecast with prices aligned with the rest of the market. There was no significant rebidding.

Thursday, 30 June

6:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	268.60	40.30	50.85
Demand (MW)	2,047	2,013	1,963
Available capacity (MW)	2,099	2,170	2,163
7:00 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	295.33	40.21	40.29
Demand (MW)	2,071	2,079	2,033
Available capacity (MW)	2,099	2,170	2,163
7:30 pm	Actual	4 hr forecast	12 hr forecast
Price (\$/MWh)	161.81	38.00	38.00
Demand (MW)	2,048	2,086	2,045
Available capacity (MW)	2,099	2,165	2,163

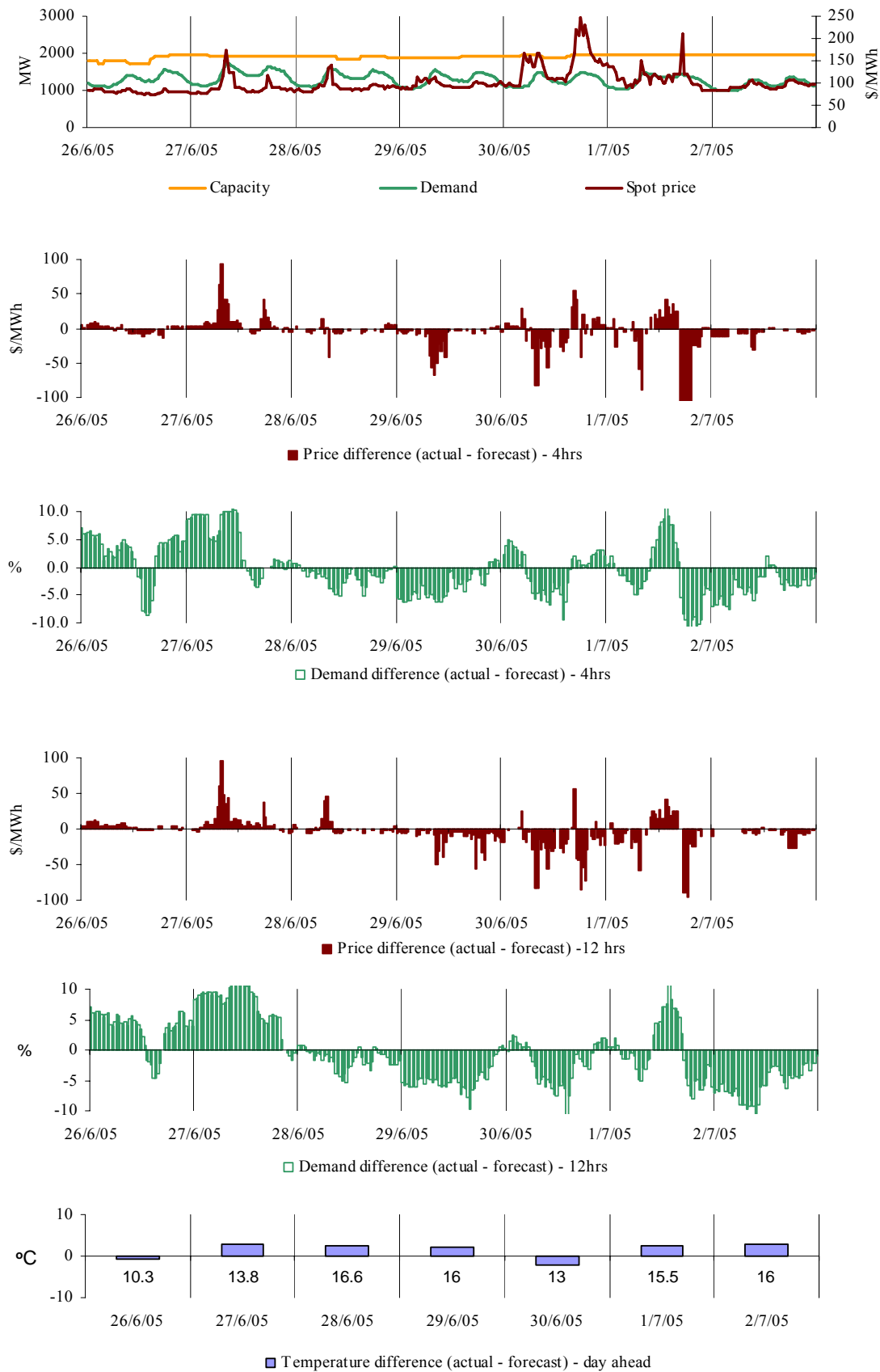
Conditions at the time saw demand as forecast. There was limited capacity available priced between \$30/MWh and \$300/MWh. The Victoria to South Australia interconnector was at its limit of around 460MW while an unplanned outage from around 8am to 8pm on the Murraylink interconnector reduced flows across Murraylink by around 200MW to zero.

At 4.47pm, NRG Flinders' Playford power station tripped, reducing availability to zero from 125MW. All of this capacity was priced at less than zero. The rebid reason given was "Playford plant tripped".

At 5.22pm, International Power rebid 77MW of capacity from prices of less than \$35/MWh to \$148/MWh. At 6.01pm, effective 6.10pm, this capacity was further shifted to \$297/WMh. These rebids resulted in a reduction of output by the same amount. The rebid reason given on each occasion was "Change in price forecasts".

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 \$101/MWh.

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

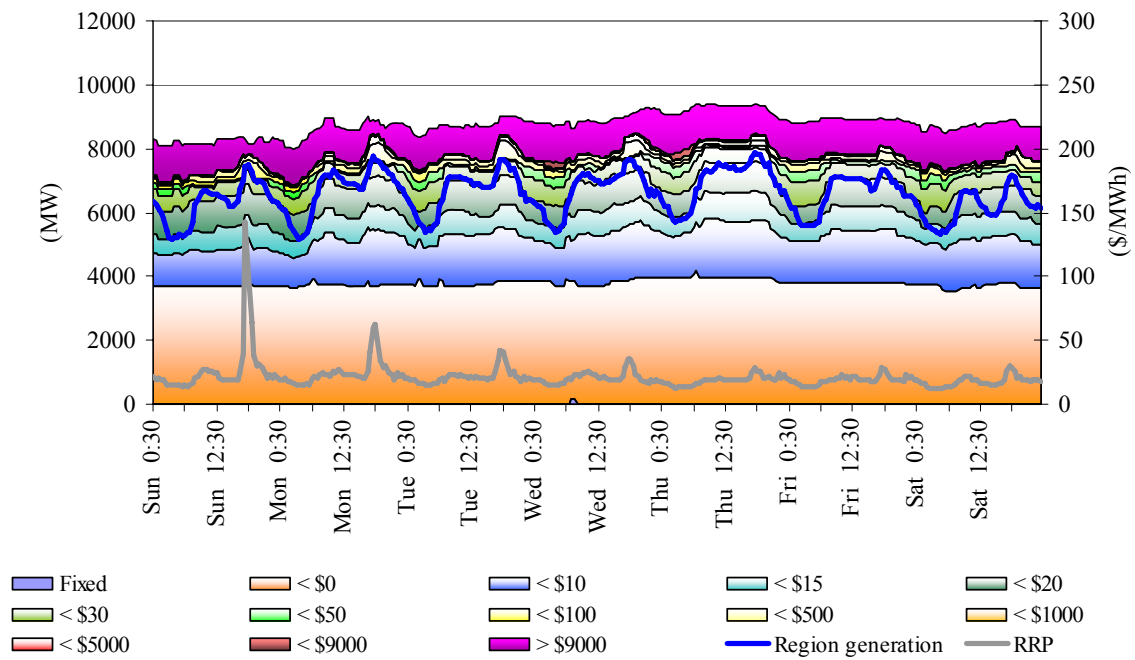


Figure 52: New South Wales closing bid prices, despatched generation and spot price

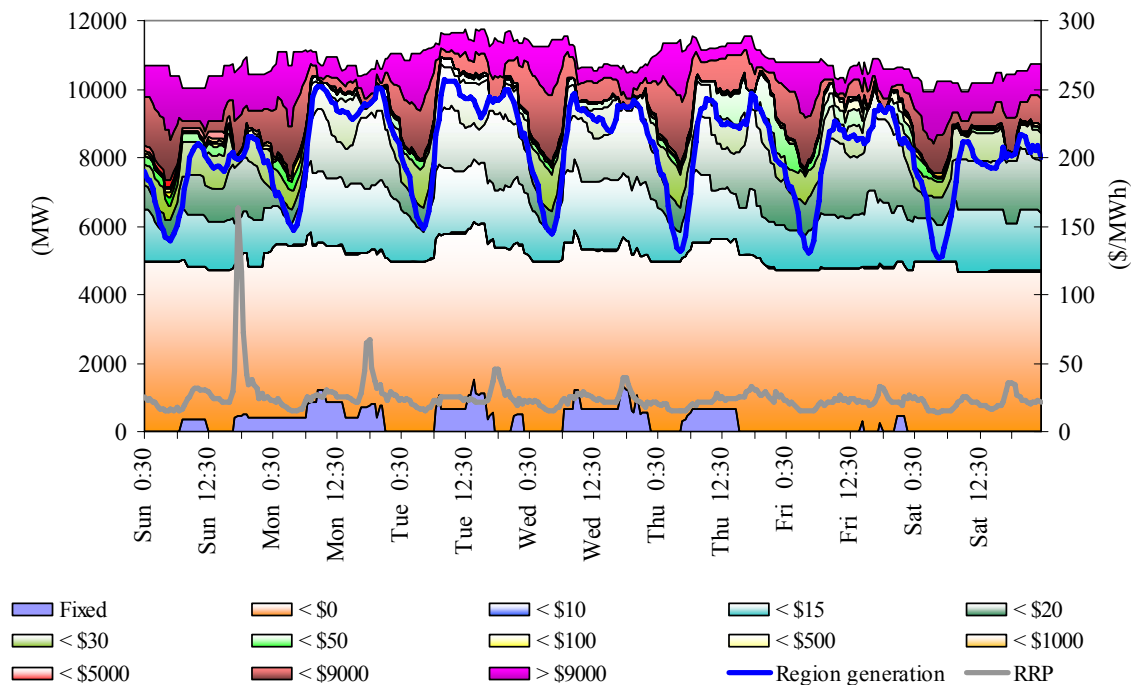


Figure 53: Victoria closing bid prices, despatched generation and spot price

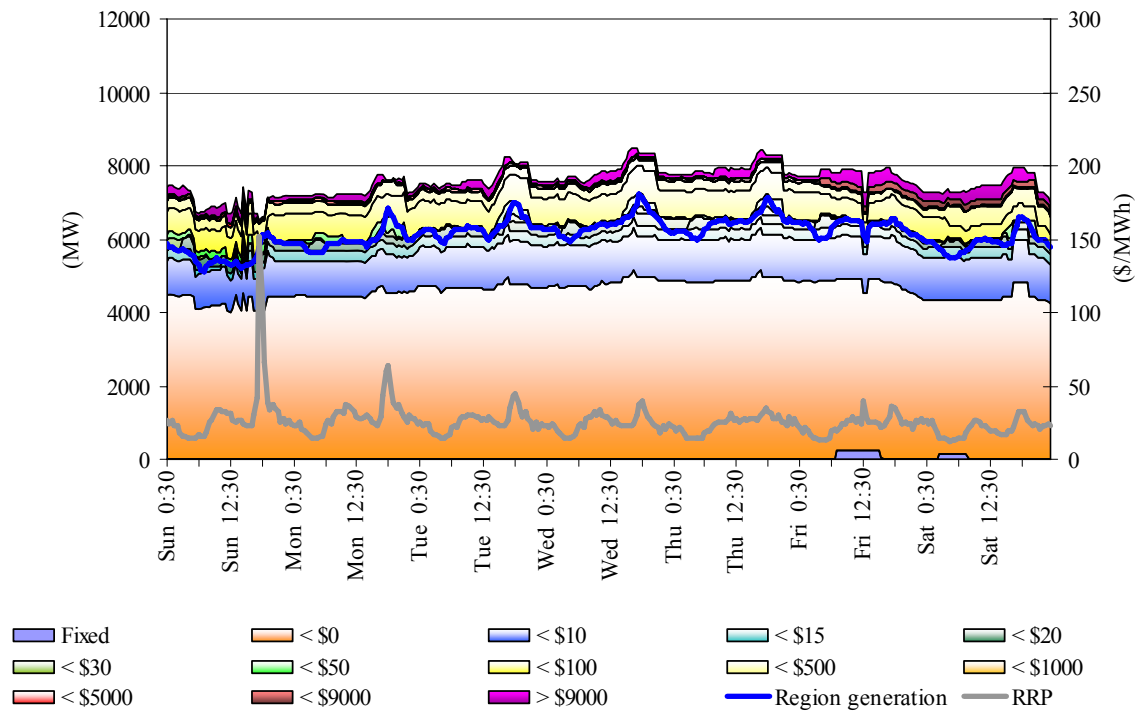


Figure 54: South Australia closing bid prices, despatched generation and spot price

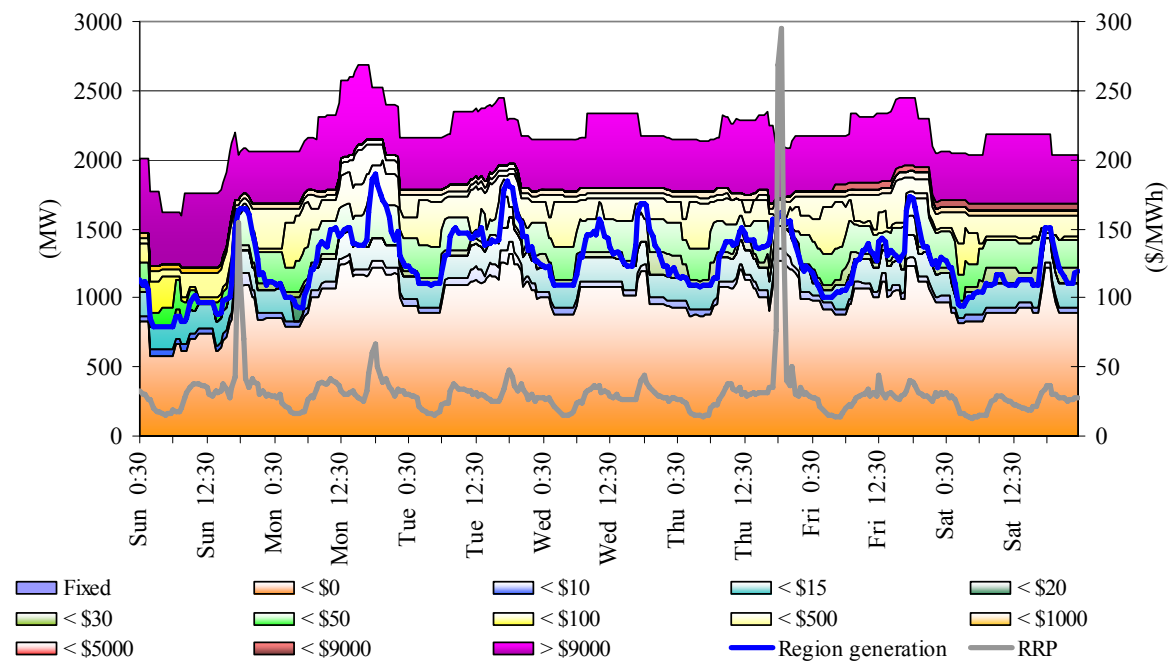
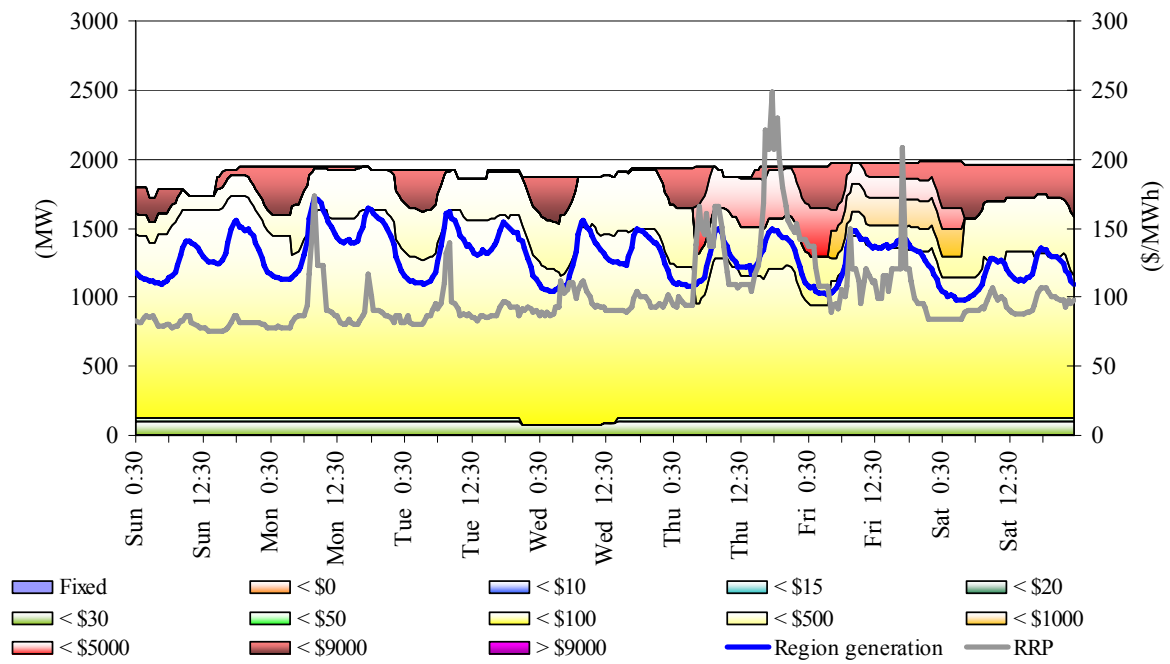


Figure 55: Tasmania closing bid prices, despatched generation and spot price



Ancillary service market

The total cost of ancillary services for the week was \$644,000 or 0.6 per cent of the total turnover in the energy market. A continuing network outage in Victoria was complete during the week. The cost for ancillary services in Tasmania totalled \$224,000 or 1 per cent of the energy market turnover for that region. There was little capacity offered in Tasmanian for all services priced between \$1/MW and \$100/MW. The requirement for regulation services increased from 30MW to 50MW on Friday 1 July. 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 (\$)	1.71	0.55	0.80	1.25	0.24	1.50	4.56	1.75
Previous week(\$)	1.81	0.53	0.77	1.31	0.24	1.77	6.86	1.55
Last Quarter(\$)	2.36	1.50	1.41	1.32	2.28	2.13	3.48	1.70
Market Cost (\$1000s)	\$85	\$27	\$53	\$29	\$1	\$28	\$156	\$41
% of energy market	0.09%	0.03%	0.05%	0.03%	0.00%	0.03%	0.16%	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 (\$)	10.36	1.05	1.05	1.64	1.37	1.05	1.05	1.27
Previous week(\$)	1.49	1.05	1.05	1.33	1.28	1.05	1.05	1.07
Market Cost (\$1000s)	\$105	\$11	\$15	\$9	\$17	\$31	\$29	\$7
% of energy market	0.48%	0.05%	0.07%	0.04%	0.08%	0.14%	0.13%	0.03%

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

Figure 58: daily frequency control ancillary service costs

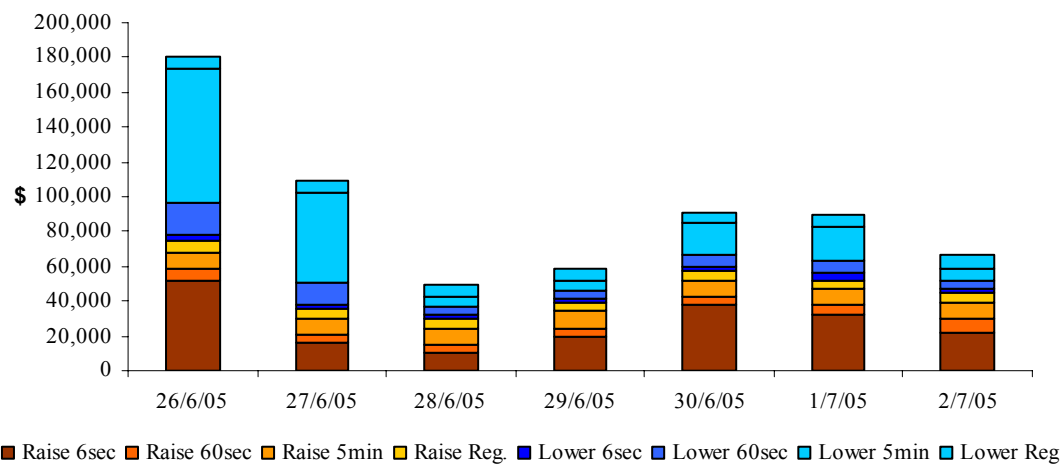
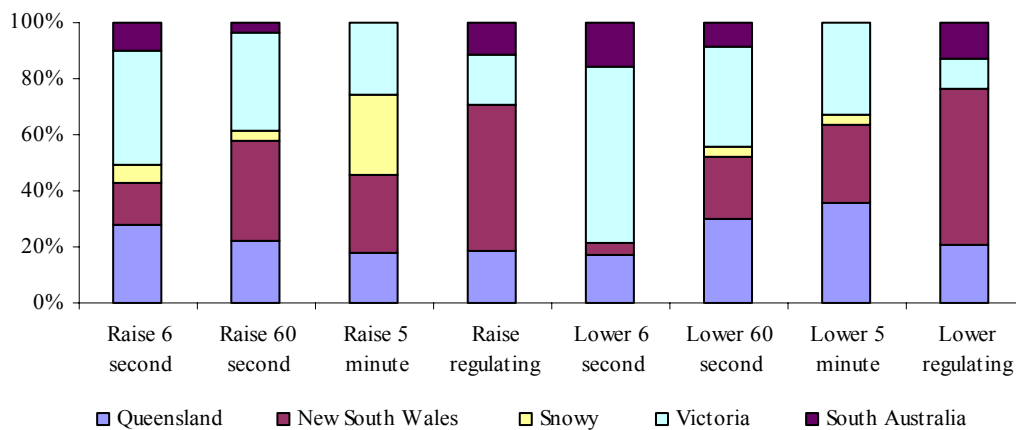


Figure 59 shows the regional weekly participation in each of the ancillary service markets on the mainland.

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

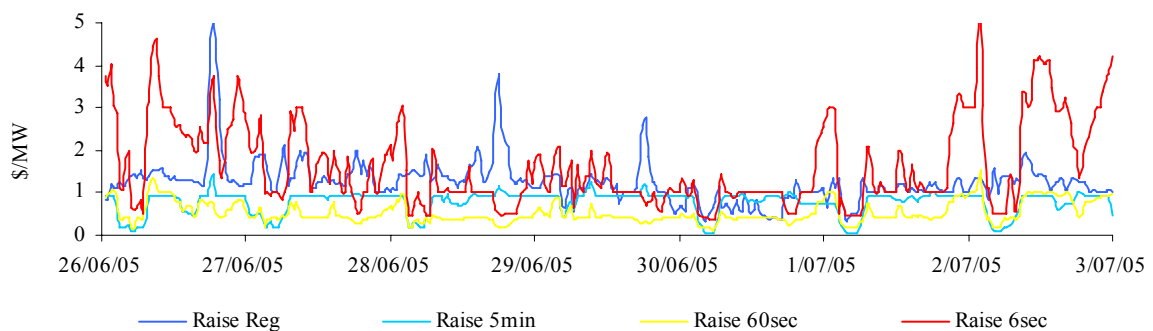


Figure 60A: prices for raise services - Tasmania

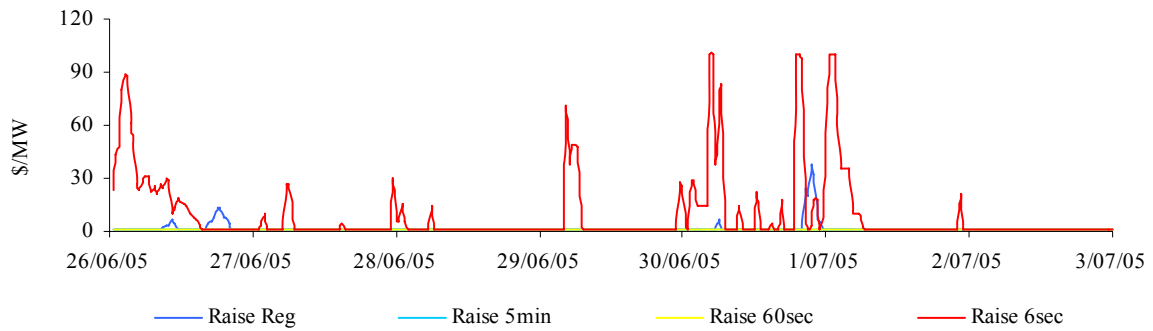


Figure 61: prices for lower services

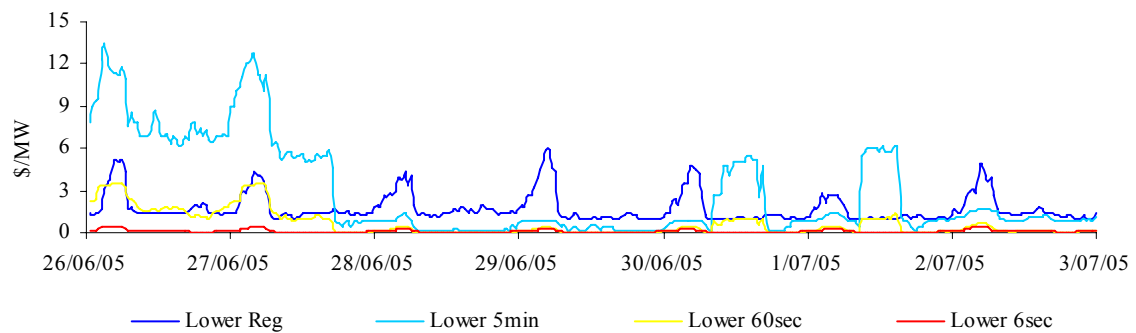
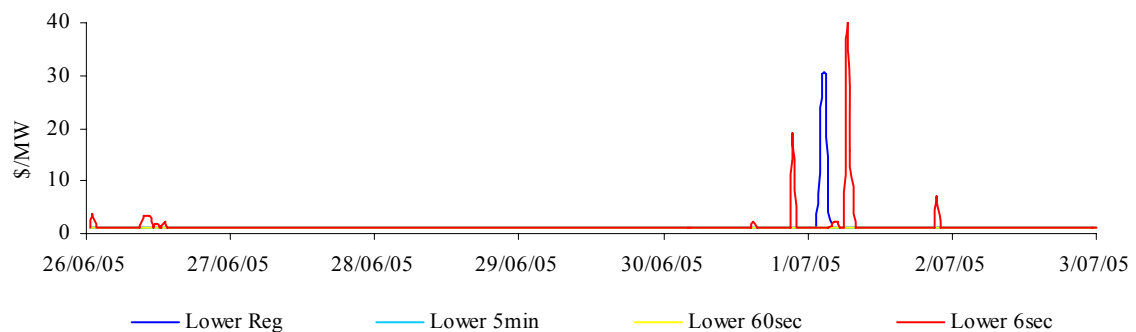


Figure 61A: prices for lower services - Tasmania



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

Figure 62: raise requirements

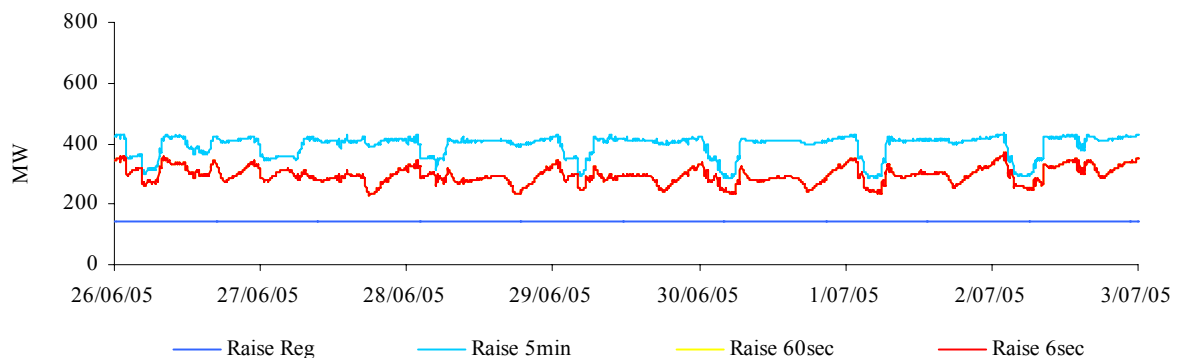


Figure 62A: raise requirements - Tasmania

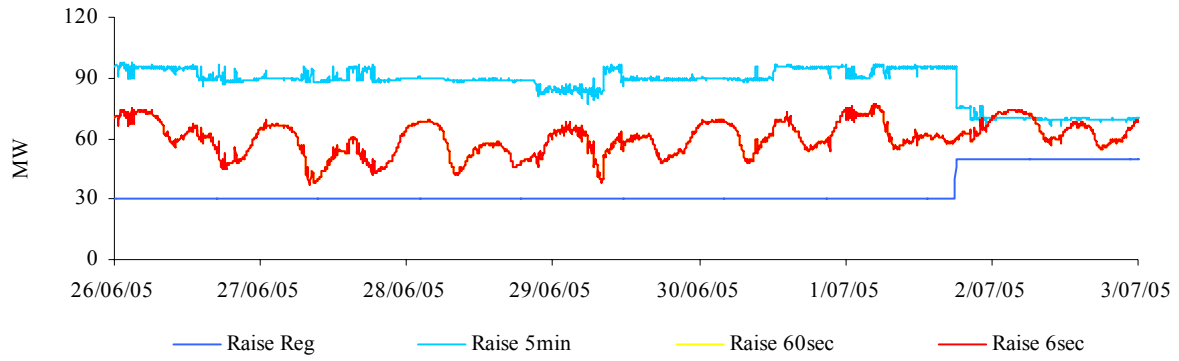


Figure 63: lower requirements

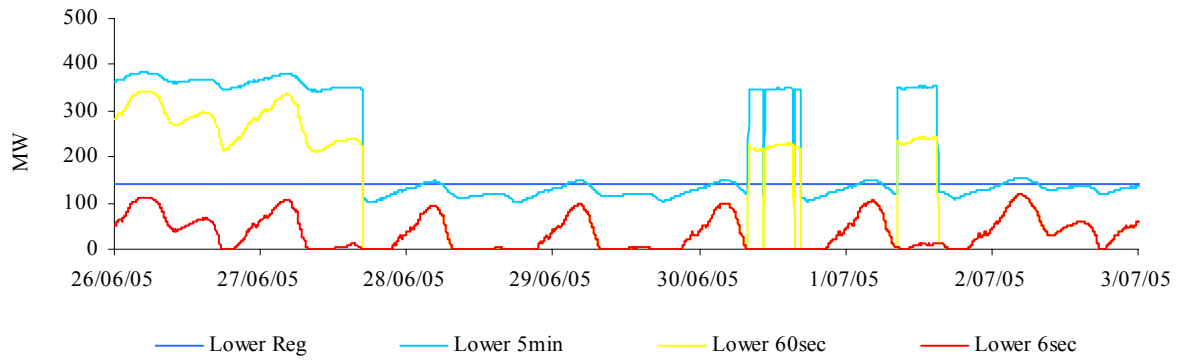


Figure 63A: lower requirements - Tasmania

