



Market analysis: 12 June – 18 June

In Tasmania the spot price averaged \$69/MWh. This represented a slight decrease from the previous week. A reduction in demand, along with increased capacity priced below \$50/MWh, contributed. Average spot prices in the other regions ranged from \$19/MWh in Queensland to \$26/MWh in South Australia. These prices were consistent with the previous week.

The price volatility index was below the longer term trend in all interconnected regions. The price volatility index in Tasmania remains lower than for the other regions.

Turnover in the energy market was around \$91 million, while the total cost of ancillary services for the week was \$569,000 or 0.6 per cent of the total turnover in the energy market. The cost for ancillary services in Tasmanian totalled \$130,000 or 0.9 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 two thirds of all trading intervals in South Australia, 20 per cent in Tasmania and much lower in the other regions. Significant variations between forecast and actual prices occurred in 17 or 5 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	19	21	21	26	69
Previous week	17	20	20	24	79
Same quarter last year	29	33	31	34	-
Financial year to date	31	46	29	39	-
% change from previous week	▲9%	▲4%	▲2%	▲8%	▼12%
% change from same quarter last year	▼35%	▼35%	▼32%	▼24%	-
% change for year to date	▼1%	▲25%	▲8%	0%	-

Figure 2: national demand and spot prices

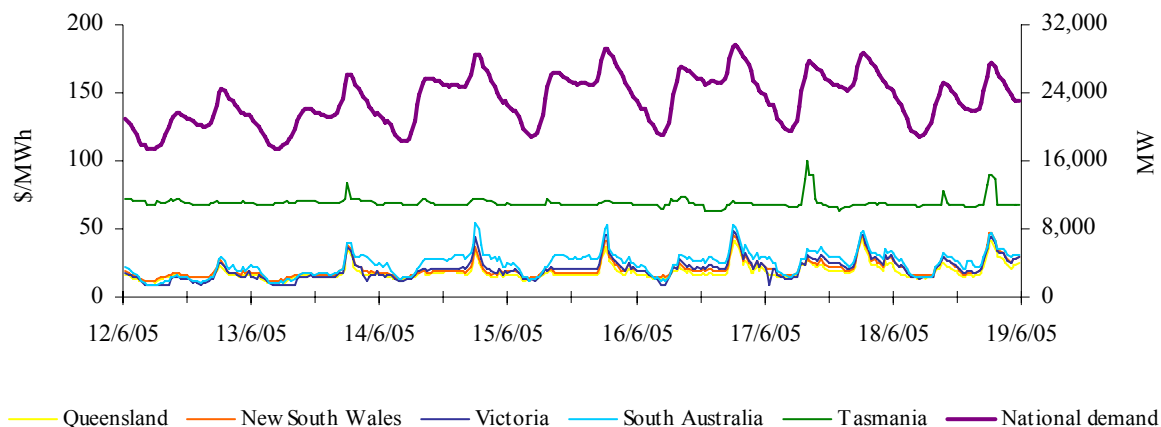


Figure 3: volatility index during peak periods

	QLD	NSW	VIC	SA	TAS
Last week	0.52	0.54	0.70	0.47	0.07
Previous week	0.36	0.44	0.46	0.40	0.33
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

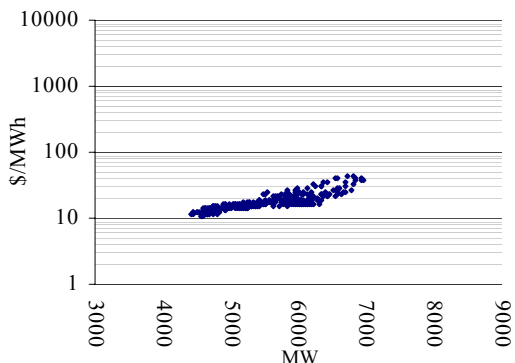


Figure 5: New South Wales

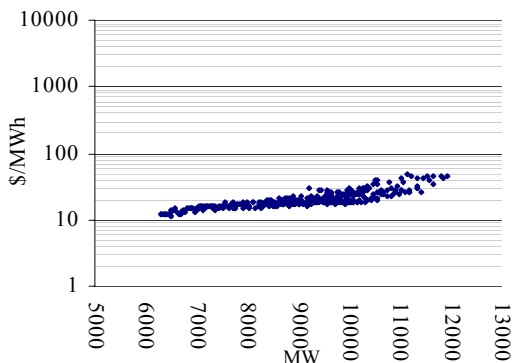


Figure 6: Victoria

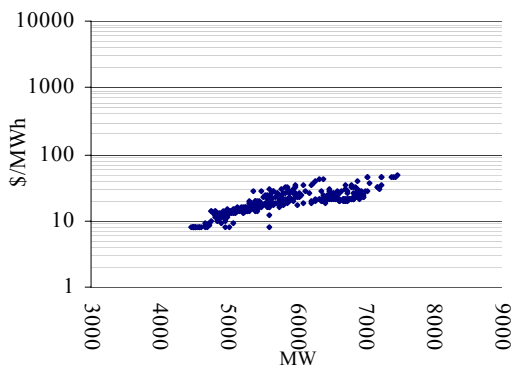


Figure 7: South Australia

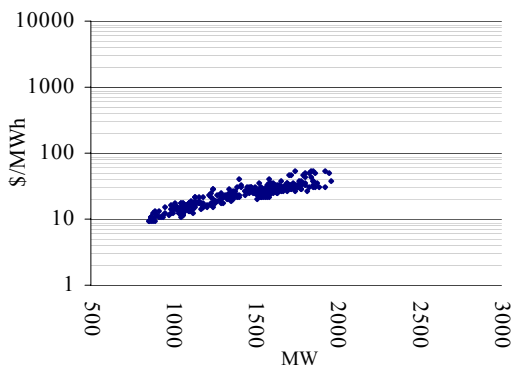
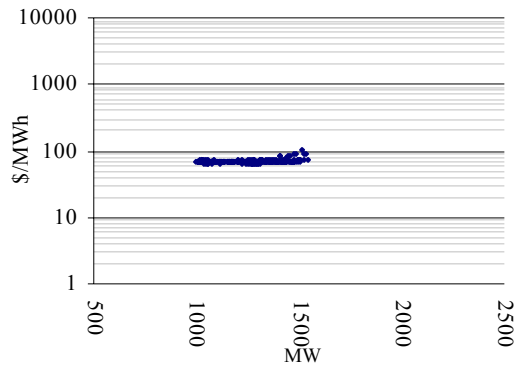


Figure 8: Tasmania



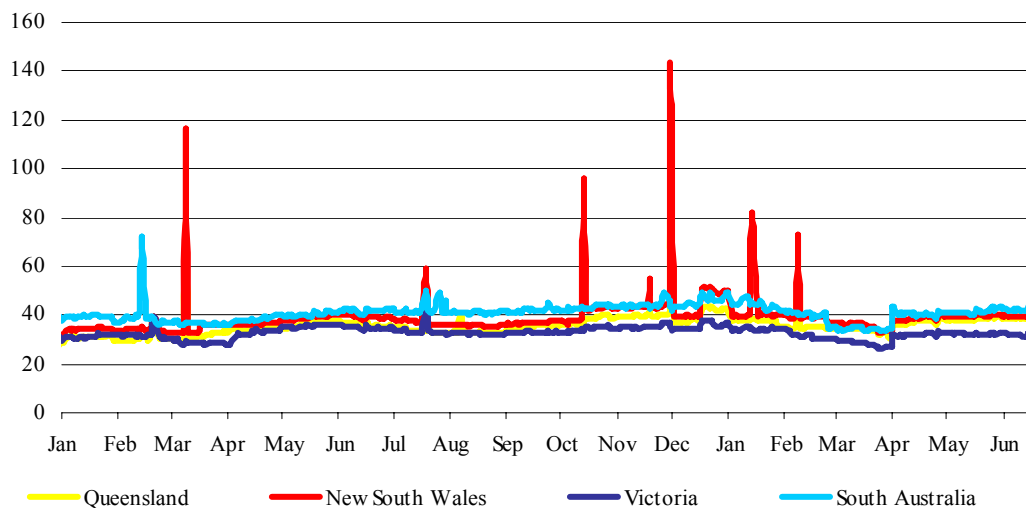
The spot price peaked in Tasmania at \$100/MWh on Friday at 8am. Peak prices in the other regions ranged from \$43/MWh in Queensland to \$55/MWh in South Australia.

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	38.17	39.50	39.32	39.31	39.33
New South Wales	39.17	40.24	40.11	39.51	39.23
Victoria	31.39	32.73	32.64	32.37	32.20
South Australia	41.45	43.44	42.86	42.25	42.58

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

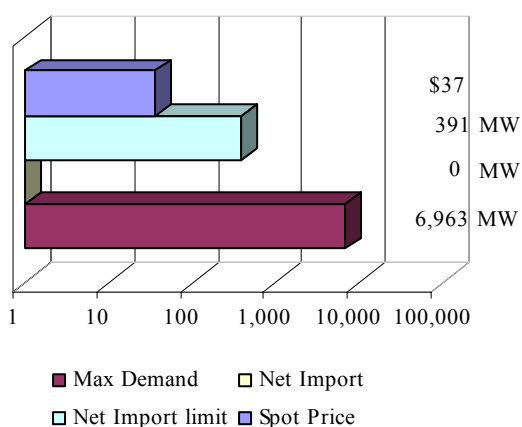


Figure 12: New South Wales

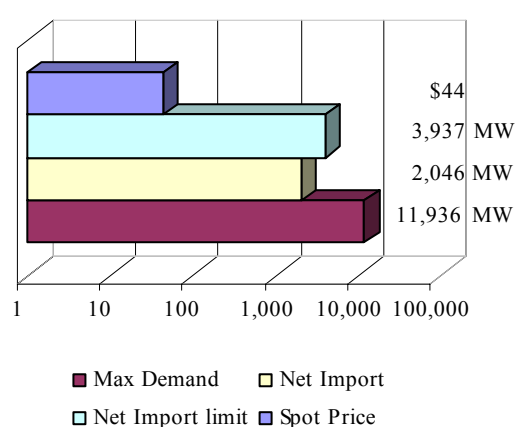


Figure 13: Victoria

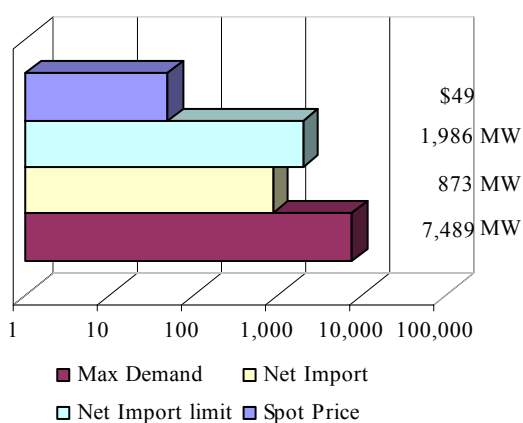
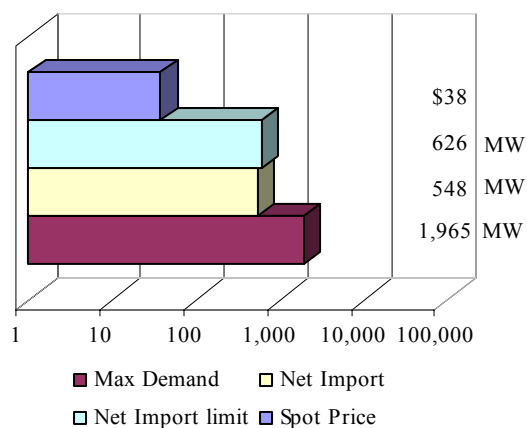


Figure 14: South Australia



In Tasmania the demand reached a maximum of \$1,544Mw on Thursday morning. Spot price for the same period was \$100/MWh.

Price variations

There were 17 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

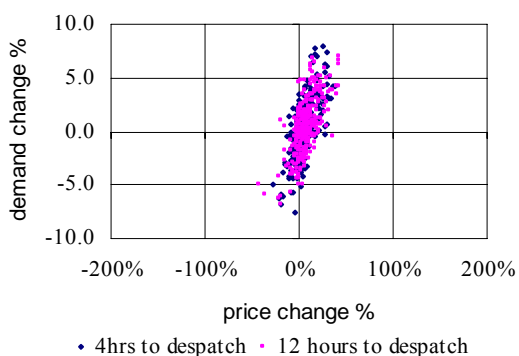


Figure 16: New South Wales

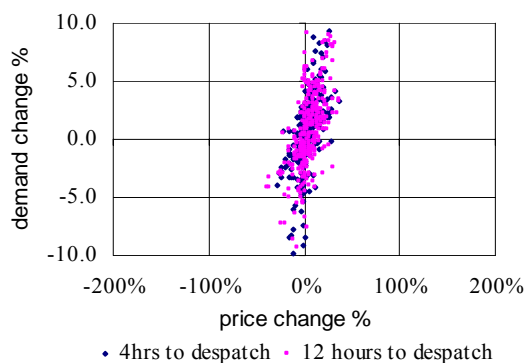


Figure 17: Victoria

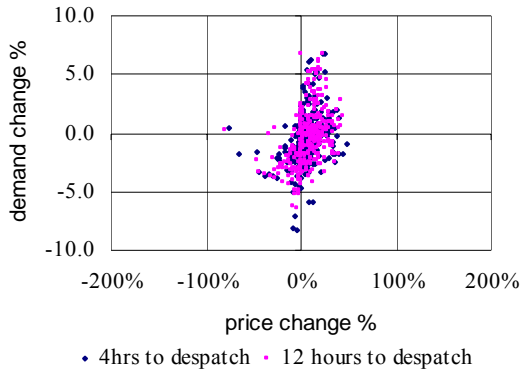


Figure 18: South Australia

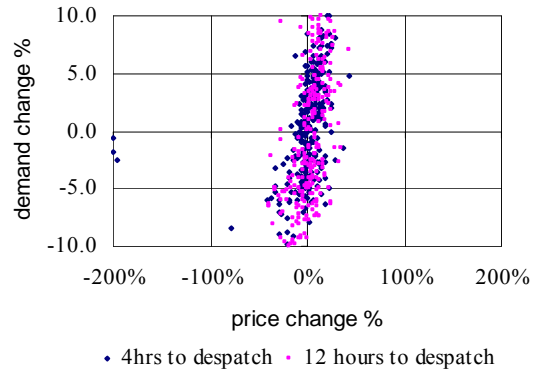


Figure 19: Tasmania

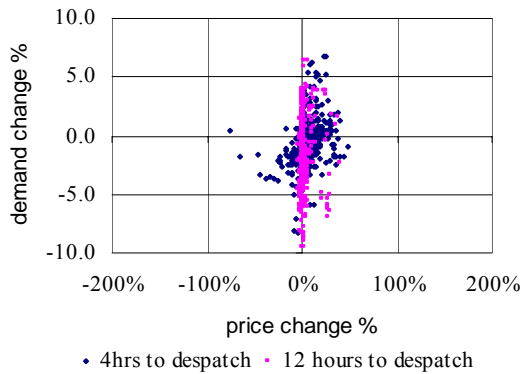
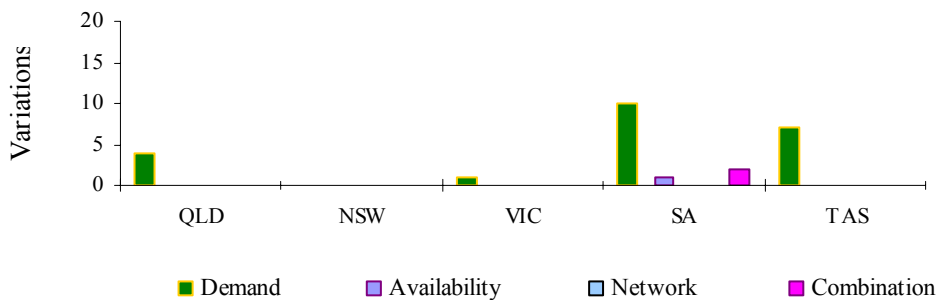


Figure 20 summarises the number and most probable reason for variations between forecast and actual prices.

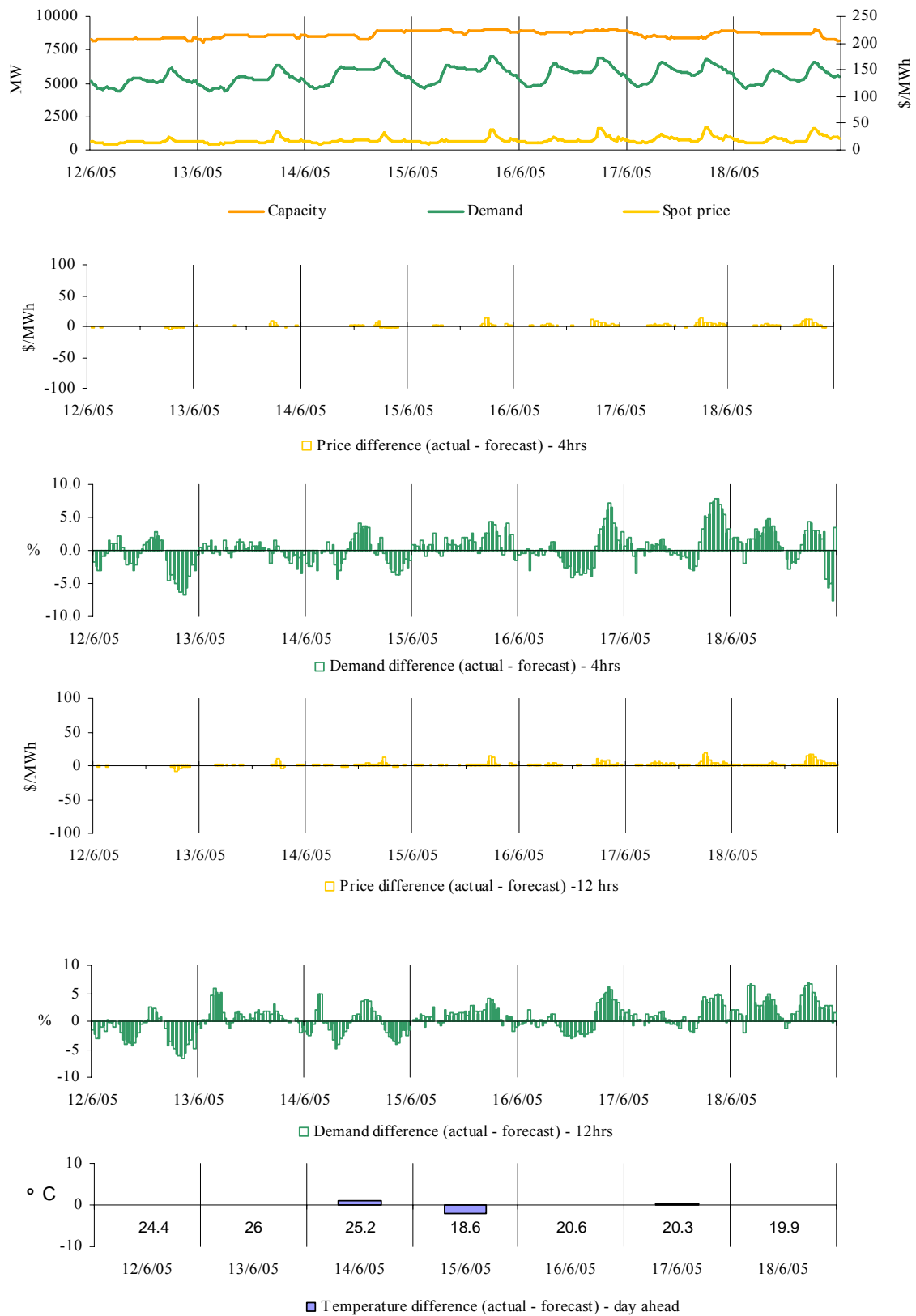
Figure 20: reasons for variations between forecast and actual prices



Price and demand

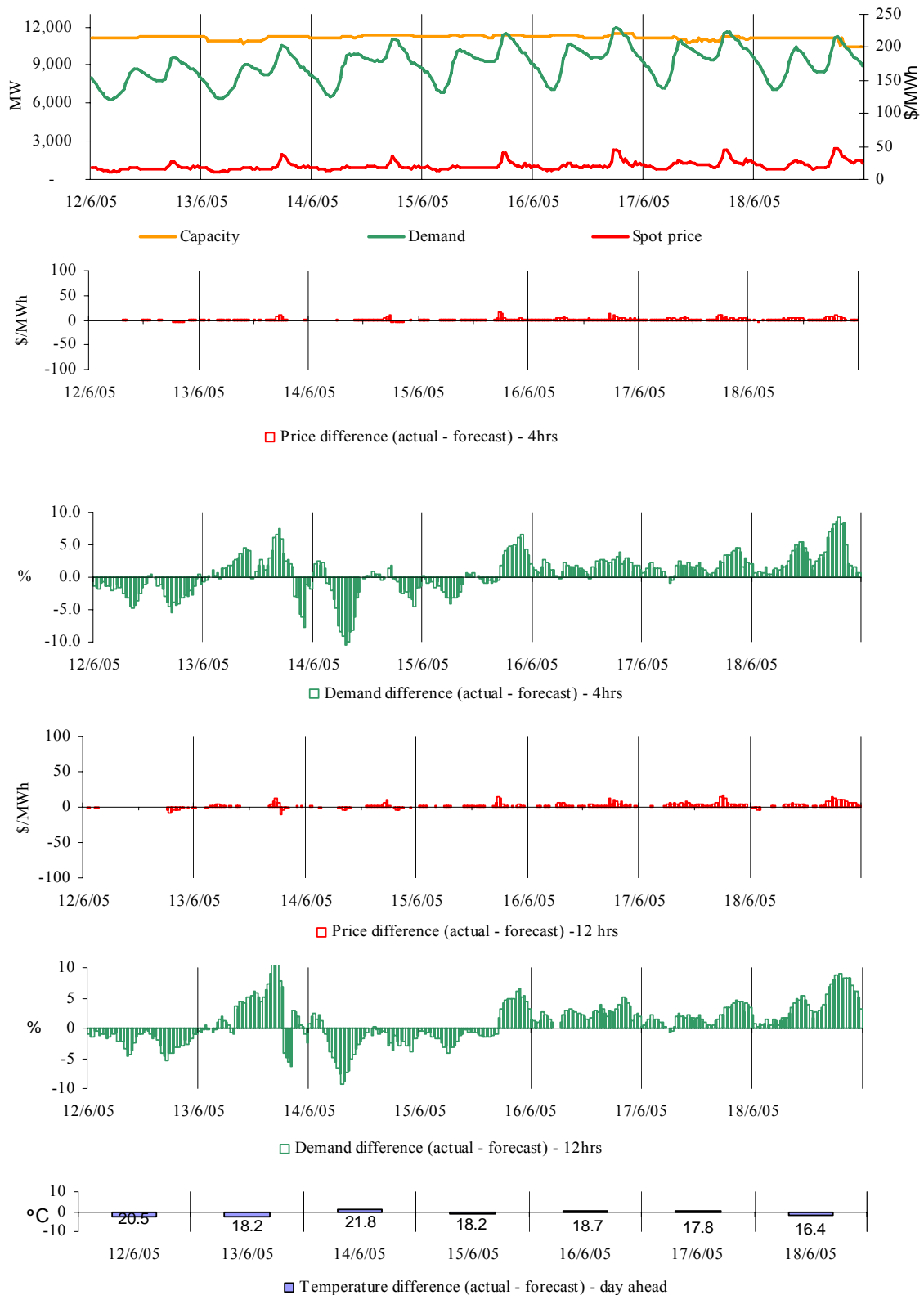
Figures 21 – 50 set out details of spot prices and demand on a regional basis. They include the actual spot price and demand outcomes and difference graphs both four and twelve hours ahead of despatch on a daily basis. The differences between the maximum temperature and the temperature forecast at around 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



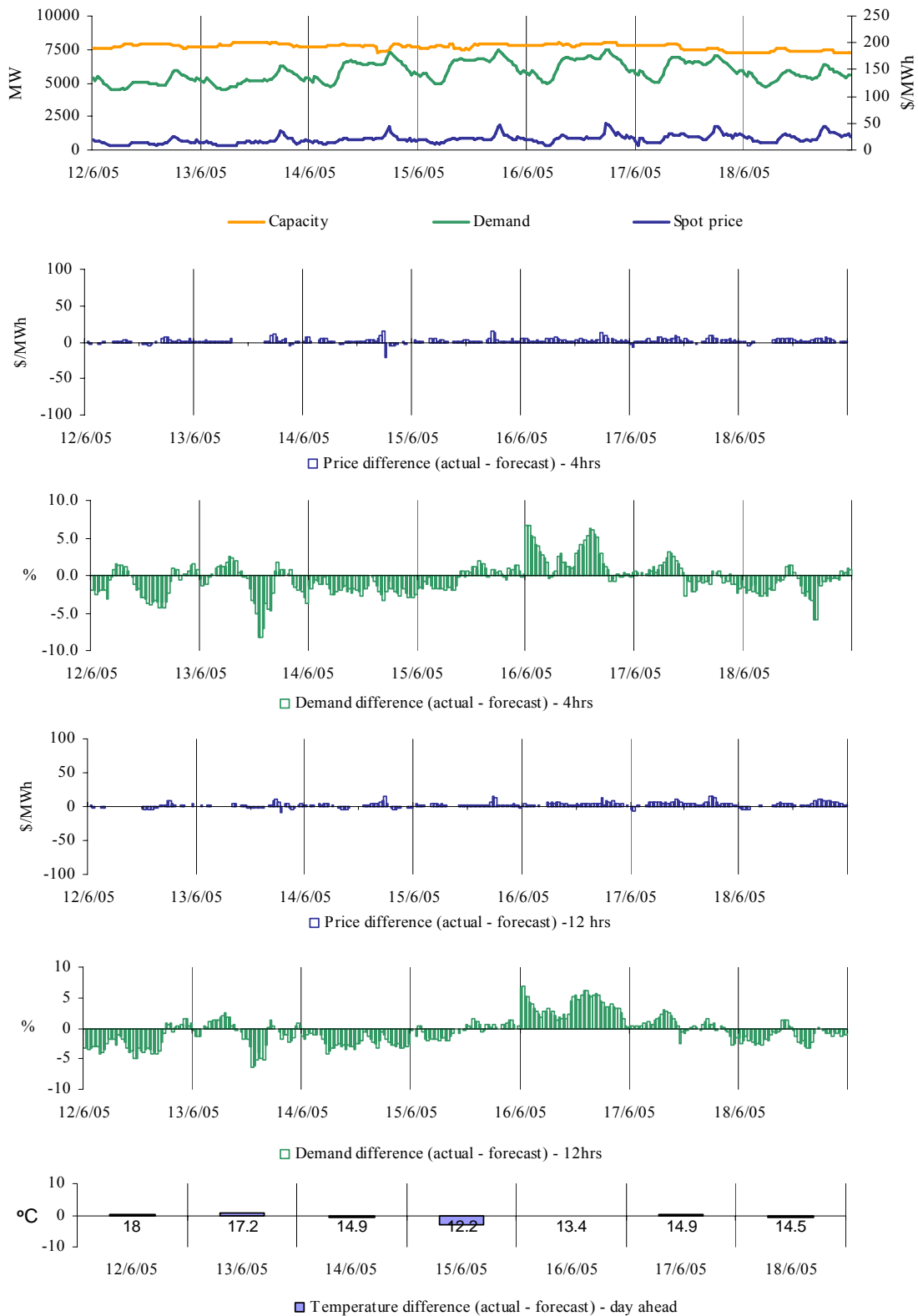
There were no occasions in Queensland where the spot price was greater than three times the weekly average price of \$19/MWh.

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



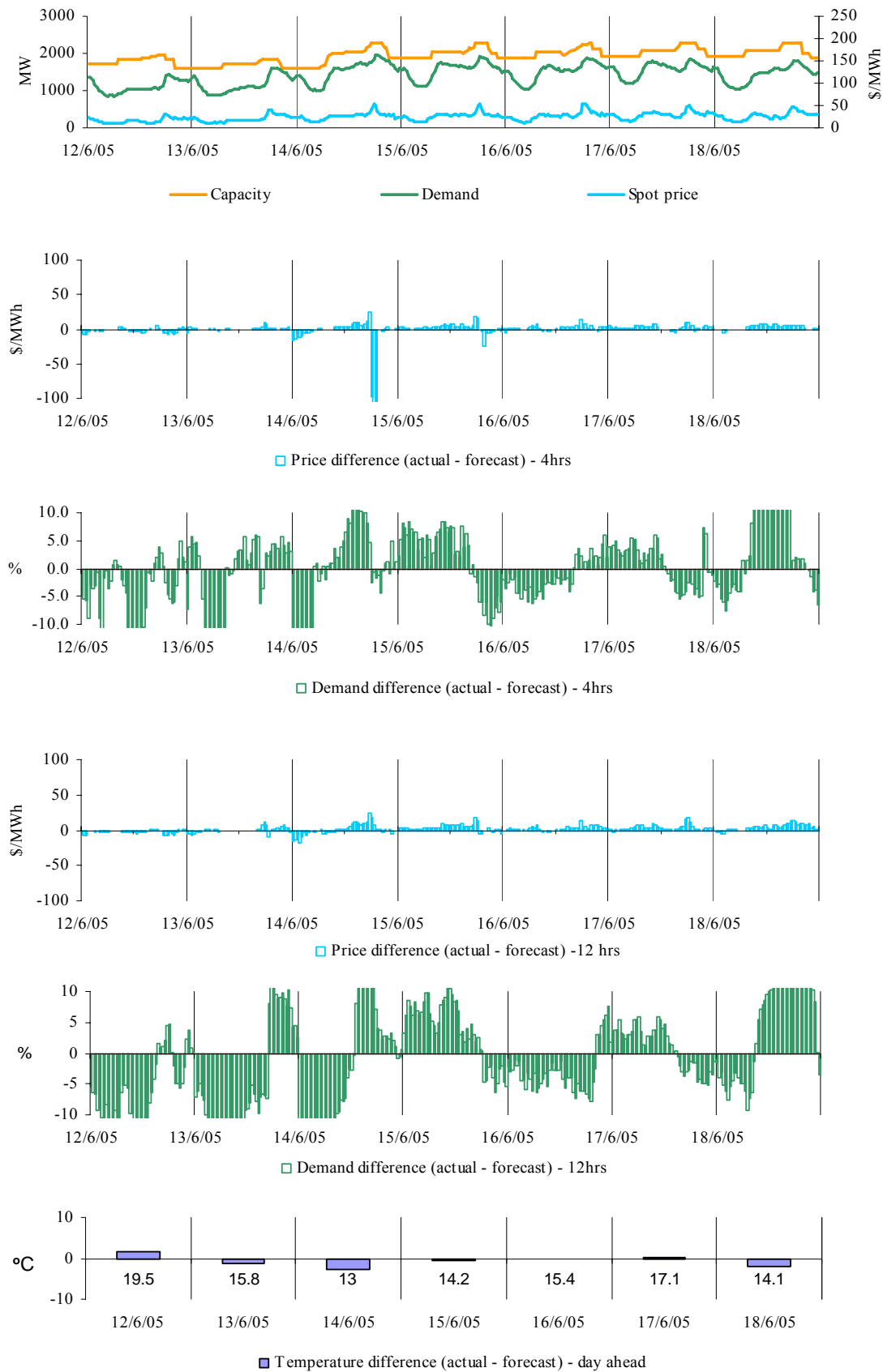
There were no occasions in New South Wales where the spot price was greater than three times the weekly average price of \$21/MWh.

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



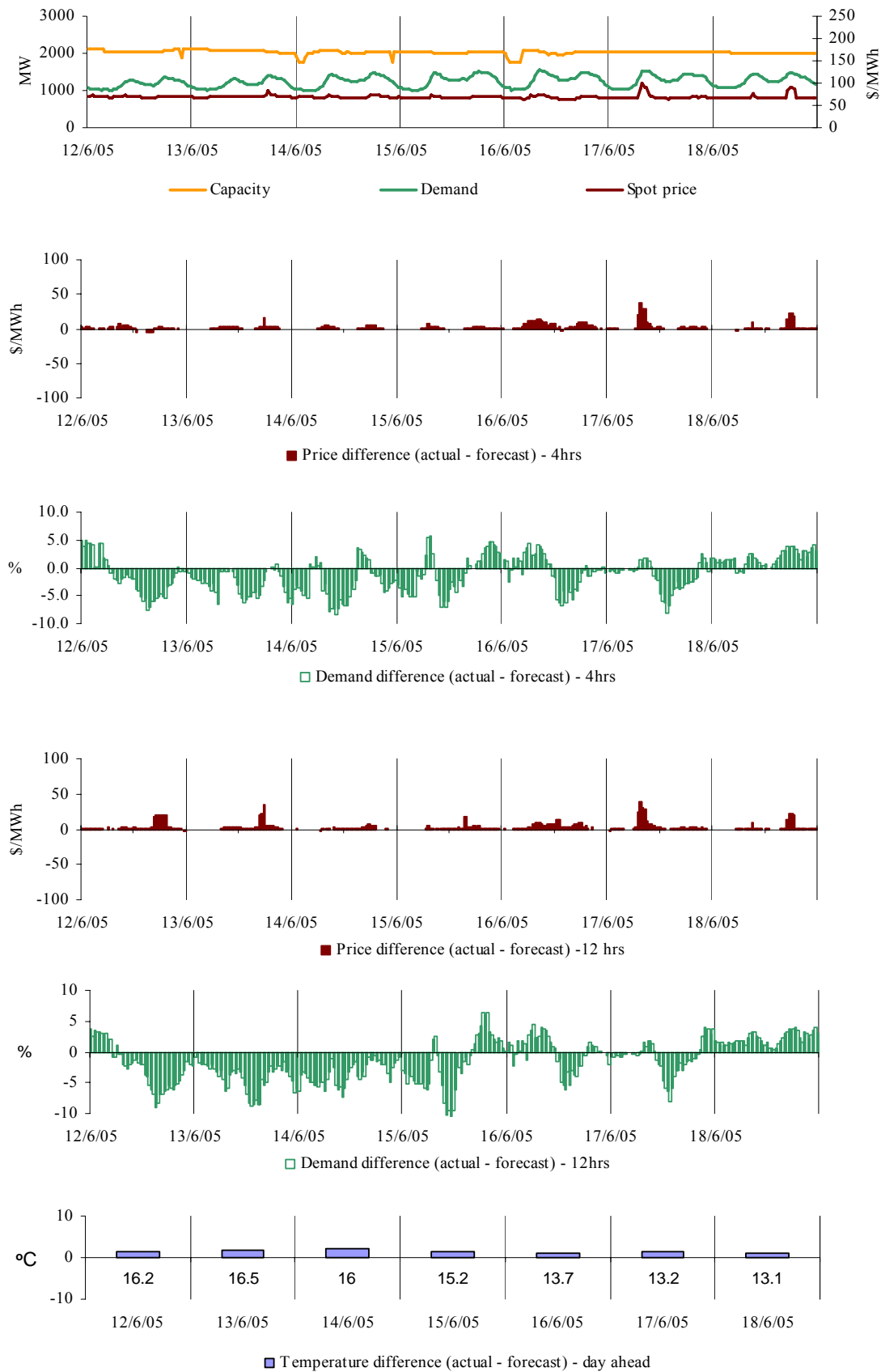
There were no occasions in Victoria where the spot price was greater than three times the weekly average price of \$21/MWh.

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



There were no occasions in South Australia where the spot price was greater than three times the weekly average price of \$26/MWh.

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 \$69/MWh.

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

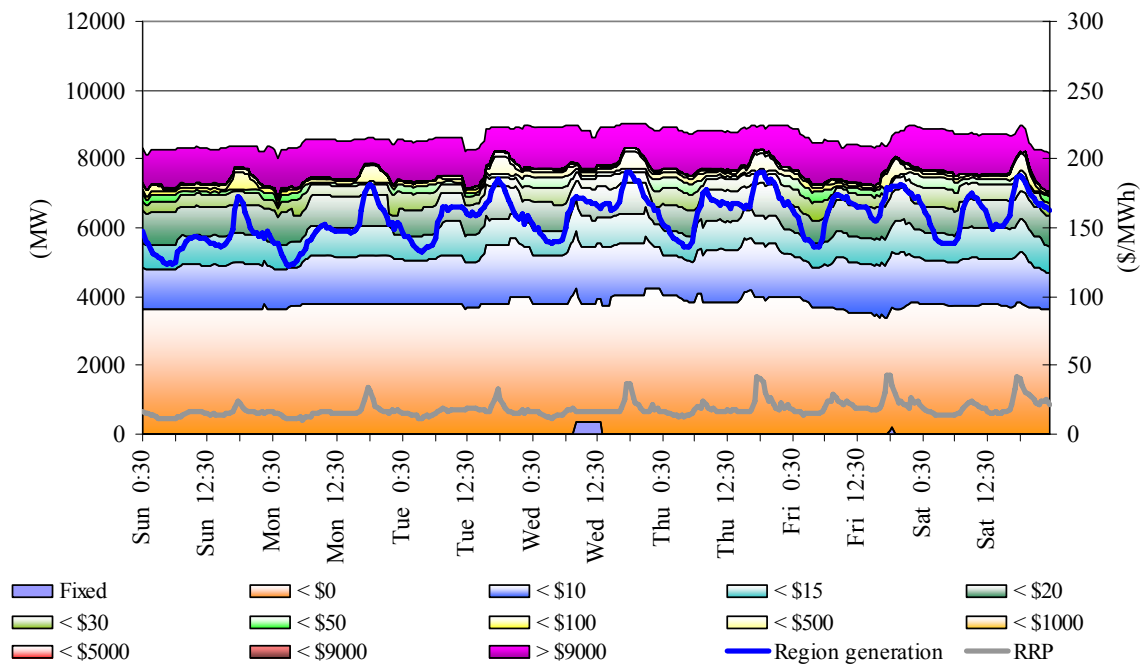


Figure 52: New South Wales closing bid prices, despatched generation and spot price

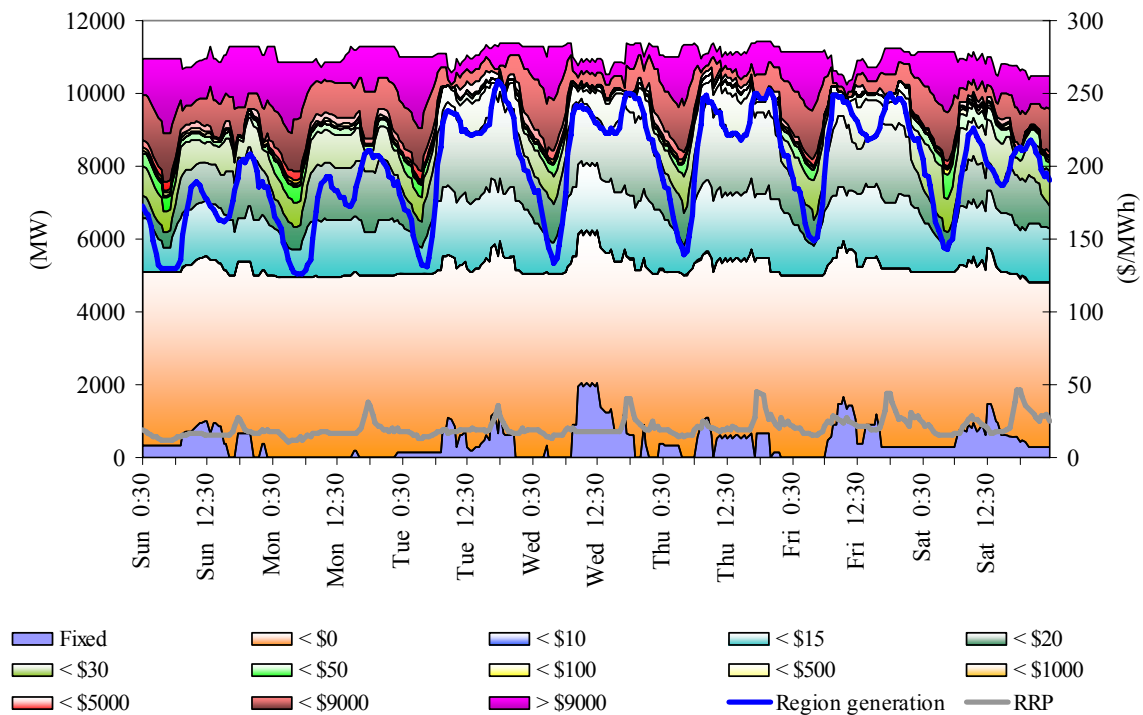


Figure 53: Victoria closing bid prices, despatched generation and spot price

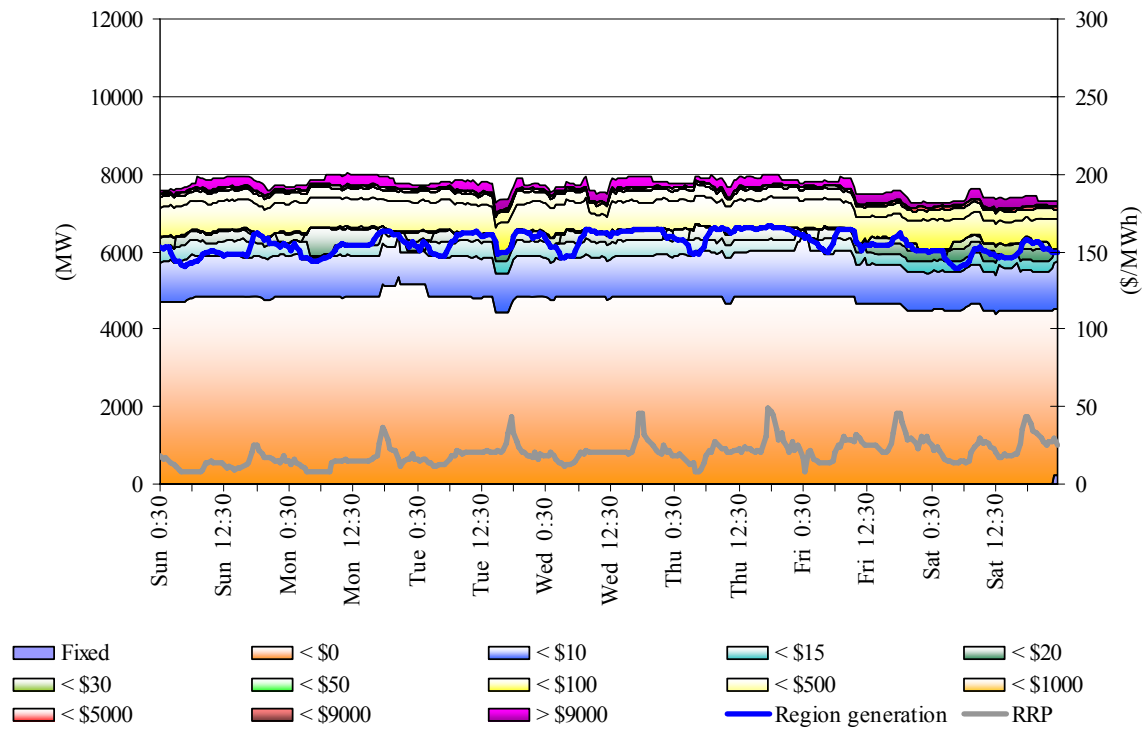


Figure 54: South Australia closing bid prices, despatched generation and spot price

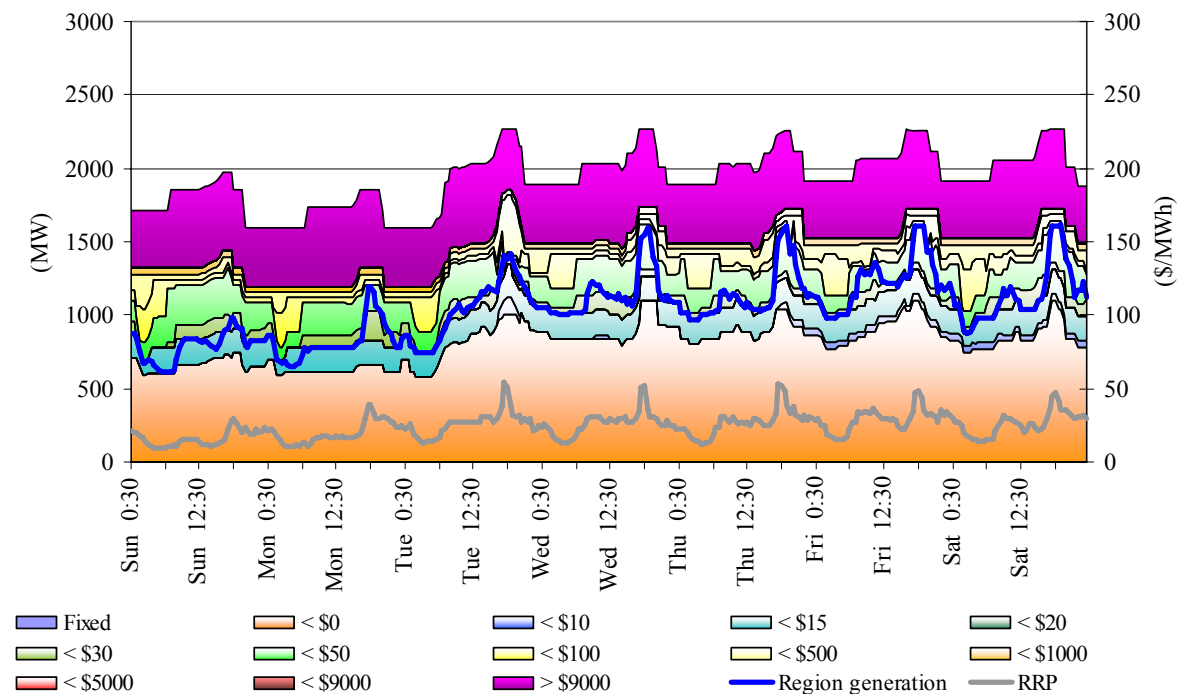
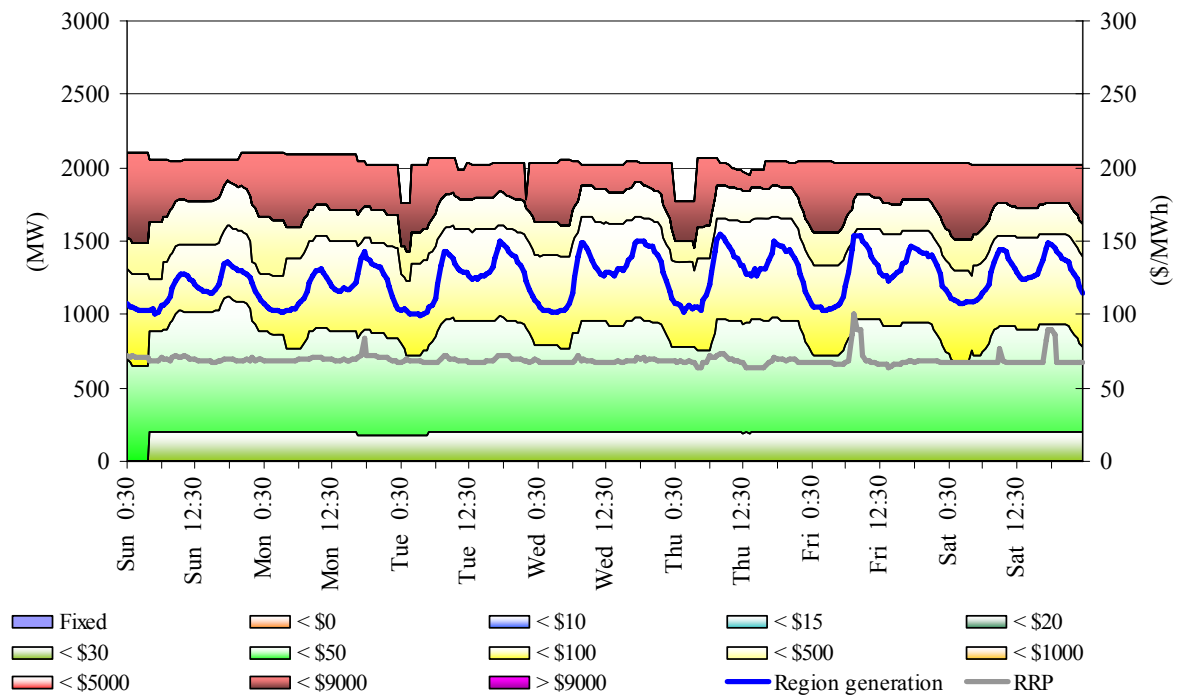


Figure 55: Tasmania closing bid prices, despatched generation and spot price



Ancillary service market

The total cost of ancillary services for the week was \$569,000 or 0.6 per cent of the total turnover in the energy market. The cost for lower 5 minute services was up by nearly \$200,000 on the previous week as a result of a network outage in Victoria for the latter half of the week. The cost for ancillary services in Tasmanian totalled \$130,000 or 0.9 per cent of the energy market turnover for that region.

Regulation prices spiked for one despatch interval to \$10,000/MW in Tasmania on Wednesday evening when every unit with an offer for regulation was inadvertently made unavailable. 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 (\$)	1.31	0.42	0.68	0.92	0.23	1.44	4.96	1.62
Previous week(\$)	1.20	0.45	0.70	0.86	0.22	0.24	0.70	1.52
Last Quarter(\$)	2.36	1.50	1.41	1.32	2.28	2.13	3.48	1.70
Market Cost (\$1000s)	\$64	\$20	\$44	\$22	\$2	\$39	\$210	\$38
% of energy market	0.08%	0.03%	0.06%	0.03%	0.00%	0.05%	0.28%	0.05%

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 (\$)	1.49	1.05	1.05	1.33	1.28	1.05	1.05	1.07
Previous week(\$)	5.60	1.05	1.28	1.60	5.44	3.01	1.31	1.30
Market Cost (\$1000s)	\$15	\$11	\$15	\$7	\$16	\$31	\$29	\$5
% of energy market	0.10%	0.08%	0.11%	0.05%	0.11%	0.21%	0.20%	0.04%

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

Figure 58: daily frequency control ancillary service costs

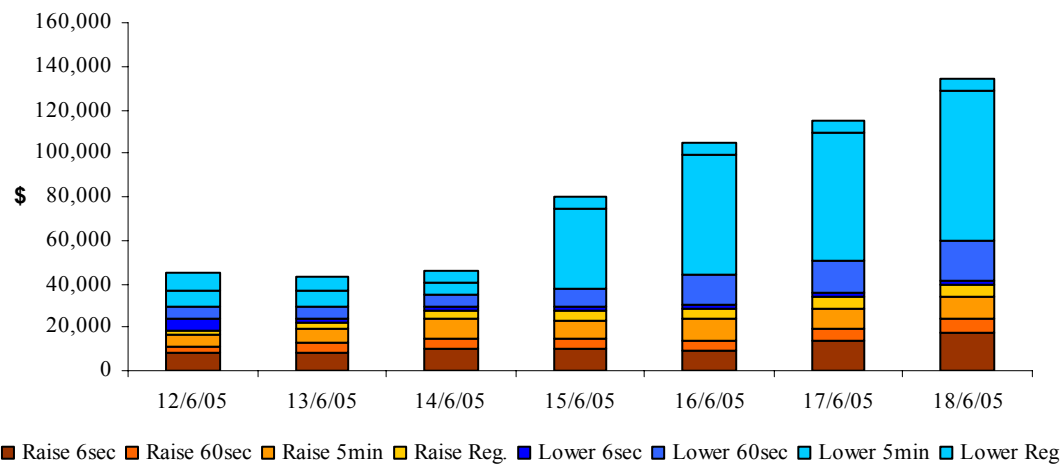
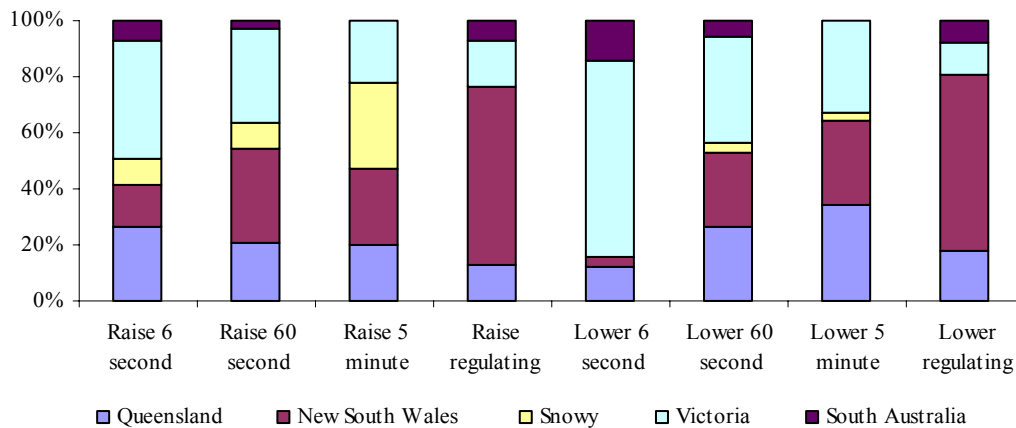


Figure 59 shows the weekly participation in each of the ancillary service markets on a regional basis.

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

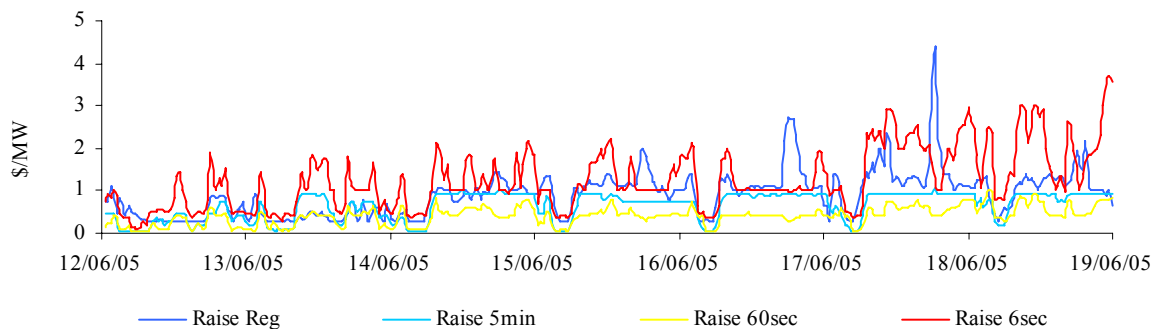


Figure 60A: prices for raise services - Tasmania

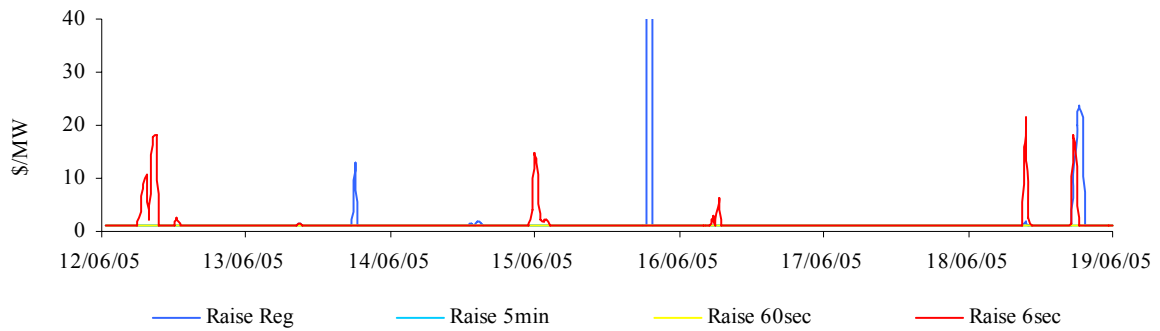


Figure 61: prices for lower services

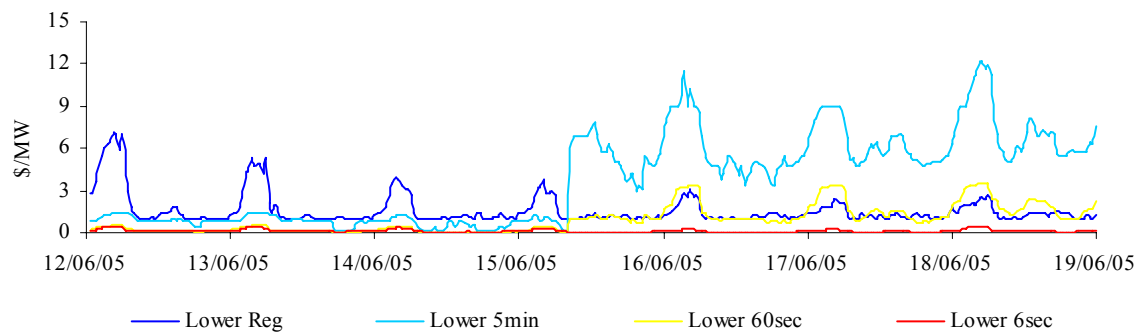
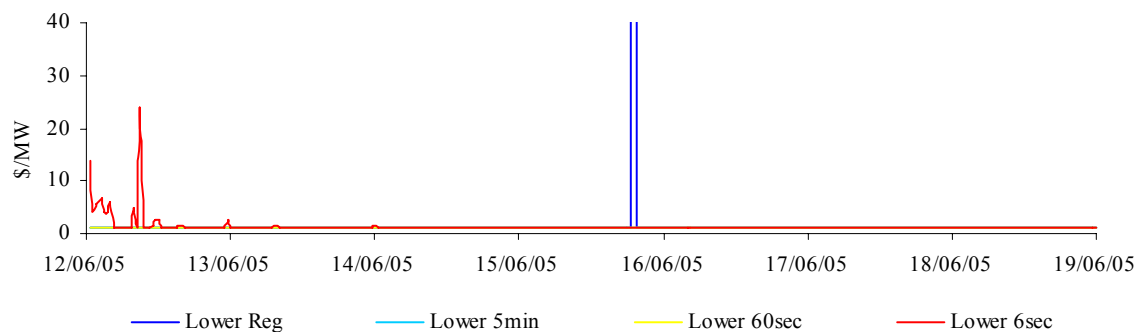


Figure 61A: prices for lower services - Tasmania



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

Figure 62: raise requirements

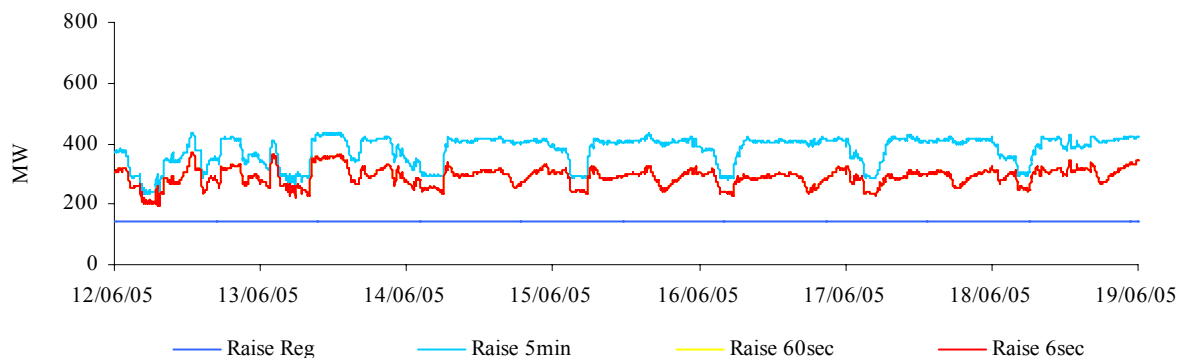


Figure 62A: raise requirements - Tasmania

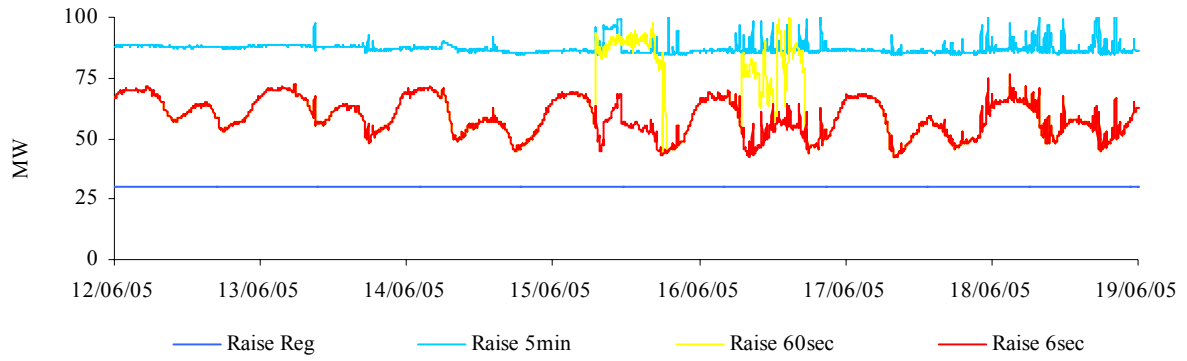


Figure 63: lower requirements

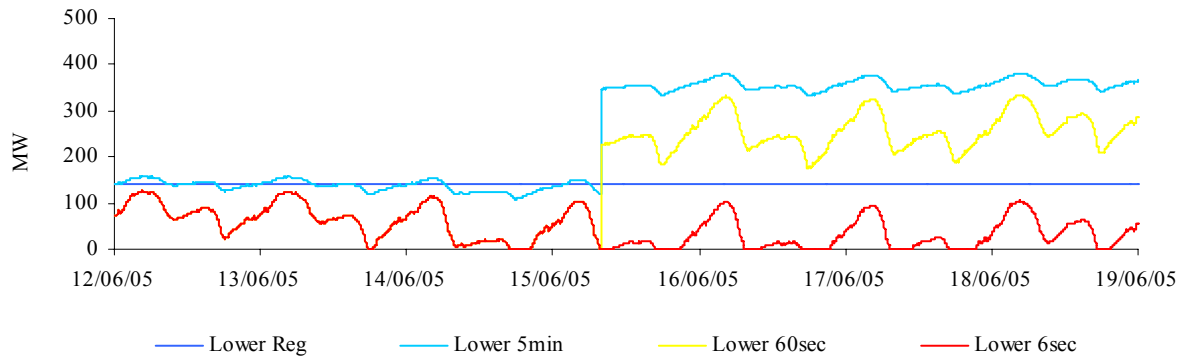


Figure 63A: lower requirements - Tasmania

