Electricity Report

7 - 13 December 2014



## Introduction

The AER is required to publish the reasons for significant variations between forecast and actual price and is responsible for monitoring activity and behaviour in the National Electricity Market. The Electricity Report forms an important part of this work. The report contains information on significant price variations, movements in the contract market, together with analysis of spot market outcomes and rebidding behaviour. By monitoring activity in these markets, the AER is able to keep up to date with market conditions and identify compliance issues.

## Spot market prices

This week was characterised by multiple high price events in Queensland, where the 5‑minute dispatch price exceeded $5000/MWh on 19 occasions, resulting in 16 spot prices above $250/MWh, as shown in figure 1 (and discussed in the *Detailed market analysis of significant price events* section).

Figure 1: Spot price by region ($/MWh)



The following factors contributed to the high price events:

* significant rebidding close to dispatch
* network limitations, and
* limited ramp rate availability.

On only one occasion[[1]](#footnote-1) where the dispatch price exceeded $5000/MWh did a peaking plant in Queensland contribute to setting the price. Last minute rebidding can inhibit participants’ ability to respond to high prices.

Attachment A to this report contains the Price Setter[[2]](#footnote-2) for each of the high price events. Price setter identifies, for a 30 minute trading interval, each five minute dispatch interval price and the generating units involved in setting the energy price. Price Setter has been attached to this report to highlight how, in many cases during the week, high dispatch prices occurred late in the trading interval.

Figure 2 shows the volume weighted average (VWA) prices for the current week (with prices shown in Table 1) and the preceding 12 weeks, as well as the VWA price over the previous 3 financial years.

Figure 2: Volume weighted average spot price by region ($/MWh)



The high volume weighted average price for the current week in Queensland is due to the significant number of high spot prices.

Table 1: Volume weighted average spot prices by region ($/MWh)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Region** | **Qld** | **NSW** | **Vic** | **SA** | **Tas** |
| **Current week** | 164 | 33 | 30 | 31 | 50 |
| **13-14 financial YTD** | 59 | 54 | 52 | 63 | 45 |
| **14-15 financial YTD** | 39 | 37 | 34 | 42 | 38 |

Longer-term statistics tracking average spot market prices are available on the [AER website](http://www.aer.gov.au/australian-energy-industry/performance-of-the-energy-sector).

## Spot market price forecast variations

The AER is required under the National Electricity Rules to determine whether there is a significant variation between the forecast spot price published by the Australian Energy Market Operator (AEMO) and the actual spot price and, if there is a variation, state why the AER considers the significant price variation occurred. It is not unusual for there to be significant variations as demand forecasts vary and participants react to changing market conditions. A key focus of our report is whether the actual price differs significantly from the forecast price either four or 12 hours ahead. These timeframes have been chosen as indicative of the time frames within which different technology types may be able to commit (intermediate plant within four hours and slow start plant within 12 hours).

There were 182 trading intervals throughout the week where actual prices varied significantly from forecasts. This compares to the weekly average in 2013 of 97 counts and the average in 2012 of 60. Reasons for the variations for this week are summarised in Table 2. The table summarises (as a percentage) the number of times when the actual price differs significantly from the forecast price four or 12 hours ahead and the major reason for that variation. The reasons are classified as availability (which means that there is a change in the total quantity or price offered for generation), demand forecast inaccuracy, changes to network capability or as a combination of factors (when there is not one dominant reason). An instance where both four and 12 hour ahead forecasts differ significantly from the actual price will be counted as two variations.

Table 2: Reasons for variations between forecast and actual prices

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Availability** | **Demand** | | **Network** | | **Combination** | |
| **% of total above forecast** | 3 | | 22 | | 0 | | 1 |
| **% of total below forecast** | 68 | | 6 | | 0 | | 1 |

## Note: Due to rounding, the total may not be 100 per cent.

## Generation and bidding patterns

The AER reviews generator bidding as part of its market monitoring to better understand the drivers behind price variations. Figures 3 to 7 show the total generation dispatched and the amounts of capacity offered within certain price bands for each 30 minute trading interval in each region.

Figure 3: Queensland generation and bidding patterns



The red ellipses highlight the changes in capacity being offered at high prices which align with the high spot price periods. A detailed analysis of the events relating to these periods is in the *Detailed market analysis of significant price events* section.

Figure 4: New South Wales generation and bidding patterns



Figure 5: Victoria generation and bidding patterns



Figure 6: South Australia generation and bidding patterns



Figure 7: Tasmania generation and bidding patterns



## Frequency control ancillary services markets

Frequency control ancillary services (FCAS) are required to maintain the frequency of the power system within the frequency operating standards. Raise and lower regulation services are used to address small fluctuations in frequency, while raise and lower contingency services are used to address larger frequency deviations. There are six contingency services:

* *fast services*, which arrest a frequency deviation within the first 6 seconds of a contingent event (raise and lower 6 second)
* *slow services*, which stabilise frequency deviations within 60 seconds of the event (raise and lower 60 second)
* *delayed services*, which return the frequency to the normal operating band within 5 minutes (raise and lower 5 minute) at which time the five minute dispatch process will take effect.

The Electricity Rules stipulate that generators pay for raise contingency services and customers pay for lower contingency services. Regulation services are paid for on a “causer pays” basis determined every four weeks by AEMO.

The total cost of FCAS on the mainland for the week was $266 500 or less than 1 per cent of energy turnover on the mainland.

The total cost of FCAS in Tasmania for the week was $144 500 or around 1.5 per cent of energy turnover in Tasmania.

Figure 8 shows the daily breakdown of cost for each FCAS for the NEM, as well as the average cost since the beginning of the previous financial year.

Figure 8: Daily frequency control ancillary service cost



## Detailed market analysis of significant price events

We provide more detailed analysis of events where the spot price was greater than three times the weekly average price in a region and above $250/MWh or was below ‑$100/MWh.

There were sixteen occasions where the spot price in Queensland was greater than three times the Queensland weekly average price of $164/MWh and above $250/MWh. Indeed, all of the spot prices requiring further analysis (according to our criteria) this week occurred in Queensland. These prices were mainly driven by significant rebidding made close to dispatch (limiting other participants’ ability to respond), network and ramp rate limitations.

## Network limitations contributed to the high prices

All of the high prices occurred from Monday to Thursday inclusive. Figure 9 shows, for the days of high prices, the export limit and target flows across the Queensland to New South Wales Interconnector (QNI), and the Queensland 5-minute price.

During the time of high prices, interconnector limits were, in general, close to forecast half an hour ahead. On 8 and 11 December, a system normal constraint used to manage voltage following the loss of the Kogan Creek Power Station saw imports into Queensland across QNI limited to around 250 MW (shown by the blue line at the bottom of the purple circles in Figure 9).

At the time of high prices on 9 and 10 December, the unplanned outage of the Muswellbrook to Tamworth 330 kV line saw exports forced out of Queensland into New South Wales at around 200 MW (indicated by the red line towards the bottom of the yellow circles in Figure 9).

The Terranora interconnector has been operating significantly below normal capability for some months.[[3]](#footnote-3) During the days of high prices, imports into Queensland across this interconnector were limited to around 20 MW.

Figure 9: Import limit and target flows across QNI, and dispatch price



## Analysis of other factors contributing to high prices

In general, conditions over the four days of high prices saw demand and available capacity close to forecast half an hour ahead. Demand on these days were at least 900 MW less than record Queensland demand of 8902 MW, recorded in 2010 and around 450 MW lower than recent summer peak demand. The analysis below should be read in conjunction with the analysis of network conditions presented above.

For each day where the spot prices was high the first table compares actual spot prices, the demand in Queensland and the amount of generation capacity being offered with the equivalent value that was forecast 4 and 12 hours ahead of dispatch.

The rebidding tables highlight the relevant rebids submitted by generators that impacted on market outcomes during the trading interval including; the time the rebid was submitted and used by the dispatch process, the amount of capacity involved and the change in the price of the capacity was being offered. The reason submitted at the time of the rebid is also included.

A summary of the participants and services involved in setting price for each dispatch interval of each high price trading interval during the periods in question is set out in Price Setter in Appendix A.

**Monday, 8 December**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Time** | **Price ($/MWh)** | | | **Demand (MW)** | | | **Availability (MW)** | | |
|  | **Actual** | **4 hr forecast** | **12 hr forecast** | **Actual** | **4 hr forecast** | **12 hr forecast** | **Actual** | **4 hr forecast** | **12 hr forecast** |
| **1:30 PM** | 1144.99 | 52.30 | 49.91 | 8034 | 7800 | 7641 | 9789 | 9975 | 10 077 |
| **2:30 PM** | 1146.27 | 52.05 | 52.90 | 7992 | 7900 | 7781 | 9847 | 9969 | 10 082 |
| **4:30 PM** | 2289.55 | 52.90 | 63.37 | 7753 | 8131 | 7930 | 9762 | 9912 | 10 014 |

**Relevant rebidding for 8 December 1.30 pm trading interval**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | | **Rebid reason** | |
| 12.41 pm | 12.50 pm | CS Energy | Gladstone | -135 | 28 | N/A | 1241P condenser backflush-SL | | |
| 12.58 pm | 1.05 pm | CS Energy | Gladstone | 175 | 28 | 13 500 | | 1257A interconnector constraint-QNI close to binding - SL | |
| 1.15 pm | 1.25 pm | Stanwell | Kareeya, Stanwell, Tarong | 486 | <290 | 6666 | | 1314A QLD rrp greater than 30 min PD price | |
| **Total capacity rebid from low to high prices** | | | | **661** |  |  | | |  |

With low-priced capacity either ramp rate limited or fully dispatched, the dispatch price increased from $43/MWh at 1.20 pm to $6667/MWh at 1.25 pm when the Stanwell 1.15 pm rebid took effect, setting price.

**Relevant rebidding for 8 December 2.30 pm trading interval**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | **Rebid reason** |
| 1.18 pm | 1.25 pm | Millmerran Energy Trader | Millmerran | 40 | 7 | 12 868 | 13:17 a latest PD demand revised upwards from 0930 PD |
| 1.46 pm | 2.05 pm | CS Energy | Gladstone | 275 | 28 | 13 500 | 1345A interconnector constraint-QNI close to binding - SL |
| 1.52 pm | 2 pm | CS Energy | Gladstone | 100 | 13 500 | 28 | 1352A interconnector constraint-QNI close to binding - SL |
| 2.08 pm | 2.15 pm | CS Energy | Gladstone | 40 | 28 | 13 500 | 1407P portfolio rearrangement due to-gps 2 backflush complete - sl |
| 2.11 pm | 2.20 pm | Stanwell | Stanwell, Tarong | 435 | <290 | 6666 | 1350A material change in QLD generation: Mt Stuart online |
| 2.21 pm | 2.30 pm | CS Energy | Gladstone | 100 | 28 | 13 500 | 1421A change in QLD generation - SCL-SL |
| 2.21 pm | 2.30 pm | Callide Power | Callide C | 40 | <950 | 12 859 | 1407A chg PD QNI flow - SL |
| 2.21 pm | 2.30 pm | Stanwell | Kareeya, Stanwell, Tarong | 341 | <23 | >6666 | 1425A material change in QLD generation: Roma offline |
| **Total capacity rebid from low to high prices** | | | | **1271** |  |  |  |

With low-priced capacity either ramp rate limited or fully dispatched, the dispatch price increased from $46/MWh at 2.25 pm to $6667/MWh at 2.30 pm (when the Stanwell, CS Energy and Callide Power Trading 2.21 pm rebids took effect).

**Relevant rebidding for 8 December 4.30 pm trading interval**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | **Rebid reason** |
| 1.16 pm | 1.25 pm | Callide Power | Callide C | 22 | 13 | 12 859 | 1315A latest PD demand revised upwards from 0930 PD |
| 2.26 pm | 2.35 pm | CS Energy | Gladstone | 225 | 28 | 13 500 | 1426A interconnector constraint-QNI binding-SL |
| 3.56 pm | 4.05 pm | Stanwell | Stanwell, Tarong | 395 | <290 | >13 064 | 1555A material change in QLD generation: Mt Stuart offline |
| 4 pm | 4.10 pm | Stanwell | Stanwell | 220 | <21 | >13 086 | 1600A QNI transmission constraint DI1600 |
| 4.15 pm | 4.25 pm | CS Energy | Gladstone | 150 | 28 | 13 500 | 1614A interconnector constraint-QNI close to binding-SL |
| 4.20 pm | 4.30 pm | Stanwell | Kareeya, Tarong | 151 | <23 | >13 064 | 1625A material change in QNI flow: DI1625 |
| 4.22 pm | 4.30 pm | Callide Power | Callide C | 22 | -1000 | 12 859 | 1620A QNI export flow for 1630 220MW higher in 5MPD 1605/20 |
| 4.23 pm | 4.30 pm | Millmerran Energy Trader | Millmerran | 40 | 7 | 12 868 | 16:22A QNI export flow for 1630 220MW higher in 5MPD 1605/20 |
| **Total capacity rebid from low to high prices** | | | | **1225** |  |  |  |

With low-priced capacity either ramp rate limited, fully dispatched or trapped or stranded in FCAS, the dispatch price increased from $56/MWh at 4.25 pm to the price cap at 4.30 pm. This was also when the Stanwell, Callide Power Trading and Millmerran rebids submitted from 4.20 pm to 4.23 pm took effect.

**Tuesday, 9 December**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Time** | **Price ($/MWh)** | | | **Demand (MW)** | | | **Availability (MW)** | | |
|  | **Actual** | **4 hr forecast** | **12 hr forecast** | **Actual** | **4 hr forecast** | **12 hr forecast** | **Actual** | **4 hr forecast** | **12 hr forecast** |
| **12:30 PM** | 1873.42 | 50.07 | 38.59 | 7437 | 7544 | 7528 | 9456 | 9419 | 9699 |
| **1:30 PM** | 2324.20 | 45.16 | 43.00 | 7635 | 7325 | 7643 | 9456 | 9398 | 9663 |
| **2:00 PM** | 2267.37 | 45.62 | 44.29 | 7689 | 7312 | 7729 | 9143 | 9398 | 9663 |
| **2:30 PM** | 2256.81 | 44.51 | 44.66 | 7740 | 7473 | 7759 | 9001 | 9366 | 9668 |
| **3:00 PM** | 1417.37 | 48.31 | 44.66 | 7824 | 7516 | 7775 | 9394 | 9393 | 9666 |
| **3:30 PM** | 2270.44 | 50.92 | 53.78 | 7847 | 7631 | 7804 | 9499 | 9353 | 9666 |

**Relevant rebidding for 9 December 12.30 pm trading interval**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | **Rebid reason** |
| 10.40 pm | 10.50 pm | CS Energy | Gladstone | 165 | 28 | >13 199 | 1037A interconnector constraint-changed QNI limits-SL |
| 11.36 am | 11.45 pm | Stanwell | Stanwell, Tarong | 170 | <51 | >13 086 | 1134A QLD 5 min price greater than 30min pd price |
| 11.42 pm | 11.50 pm | CS Energy | Gladstone | 75 | 13 500 | 28 | 1139P portfolio rearrangement due to-G1 mill limits-SL |
| 12.18 pm | 12.25 pm | CS Energy | Gladstone | 190 | <28 | >12 859 | 1214A interconnector constraint-QNI close to binding-SL |
| 12.21 pm | 12.30 pm | Callide Power | Callide C | 32 | -1000 | 12 859 | 1215A chng in 5 min PD QNI flow between 201412091205 and 1215 |
| 12.21 pm | 12.30 pm | Millmerran Energy | Millmerran | 20 | 7 | 12 868 | 12:20A QNI flow 12:30 material change in 5mpd 1205/15 |
| **Total capacity rebid from low to high prices** | | | | **577** |  |  |  |

With low-priced capacity either ramp rate limited or fully dispatched the dispatch price increased from $48/MWh at 12.20 pm to $165/MWh at 12.25 pm and then to $10 900/MWh at 12.30 pm, coincident with an increase in 5-minute demand of 53 MW. This increase to $10 900/MWh was also when the Millmerran and Callide Power Trading 12.21 pm rebids took effect.

**Relevant rebidding for 9 December 1.30 pm trading interval**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | **Rebid reason** |
| 11.42 am | 11.50 pm | CS Energy | Gladstone | 90 | 28 | 13 500 | 1137P mill limit-changed mill operation-SL |
| 1.14 pm | 1.25 pm | CS Energy | Gladstone, Callide B | 190 | 28 | >12 859 | 1312A interconnector constraint-QNI close to binding-SL |
| 1.21 pm | 1.30 pm | Millmerran Energy Trader | Millmerran | 30 | 7 | 12 868 | 13:13 A change in 5 min PD QNI limit - SL |
| 1.22 pm | 1.30 pm | Callide Power | Callide C | 32 | -1000 | 12 859 | 1309A change in 5 min PD QNI limit - SL |
| **Total capacity rebid from low to high prices** | | | | **342** |  |  |  |

With low-priced capacity either ramp rate limited or fully dispatched, the dispatch price increased from $31/MWh at 1.20 pm to $301/MWh at 1.25 pm and then to the price cap at 1.30 pm, coincident with an increase in 5-minute demand of 48 MW. The Millmerran Energy Trader and Callide Power Trading rebids also took effect at 1.30 pm.

**Relevant rebidding for 9 December 2 pm trading interval**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | | **Rebid reason** |
| 11.34 am | 12.35 pm | Callide Power | Callide C | -50 | <13 | N/A | 1133P mill and feeder issues | |
| 1.33 am | 1.40 pm | AGL | Yabulu | -155 | 2221 | N/A | 1330~F~95 unit triggered by market~95 avoid uneconomical start | |
| 1.36 pm | 1.45 pm | AGL | Oakey | -148 | <235 | N/A | 1335~P~020 reduction in avail cap~204 unit trip | |
| 1.41 pm | 1.50 pm | AGL | Oakey | 148 | N/A | <235 | 1340~P~030 increase in avail cap~304 rts from trip | |

There was around 350 MW (50 MW+155 MW+148 MW) of capacity bid unavailable, all of which was priced below $2500/MWh. At 1.45 pm there was an increase in 5-minute demand of 87 MW and an increase in forced exports into New South Wales of 97 MW (refer to figure 9 for more detail). With low-priced capacity either fully dispatched or ramp rate limited, high priced capacity was dispatched which saw the price increase from $31/MWh at 1.40 pm to the price cap at 1.45 pm. AGL rebid Oakey back into the market effective from 1.50 pm (following the earlier unplanned shutdown at 1.36 pm) which saw the price return to previous levels.

**2.30 pm, 9 December**

Energy consumption by pump loads must be offset by an increase in generation. As a result of the zero dispatch price at 2 pm, at 2.05 pm Wivenhoe Pump 1 received a target of 184 MW, which saw a 184 MW step change in generation. With low-priced generation either fully dispatched or ramp rate limited, the dispatch price increased to the price cap at 2.05 pm.

At 2.01 pm, effective from 2.10 pm, CS Energy rebid 245 MW of capacity at the Wivenhoe Pump unavailable as a result of the price at the price cap. The reason given was “1401F avoid uneconomic dispatch-SL”. This resulted in the dispatch price falling to $29/MWh at 2.10 pm.

There was no other significant rebidding.

**3 pm, 9 December**

At 2.35 pm there was a 70 MW increase in 5-minute demand and an increase in forced flows out of Queensland into New South Wales across QNI of 46 MW (from 181 MW to 227 MW). See figure 9 for more detail.

With low-priced capacity either ramp rate limited, fully dispatched or trapped/stranded in FCAS, the dispatch price increased from $14/MWh at 2.30 pm to the price cap at 2.35 pm.

In response to the high price, participants rebid around 2000 MW of capacity from various prices to close to the price floor. Consequently, dispatch prices for the remainder of the trading interval were at or close to the price floor.

**Relevant rebidding for 9 December 3.30 pm trading interval**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | **Rebid reason** |
| 3.19 pm | 3.30 pm | Stanwell | Kareeya, Stanwell, Tarong, Barron | 137 | -1000 | 13 500 | 1510A material change in QLD generation - Wivenhoe |
| **Total capacity rebid from low to high prices** | | | | **137** |  |  |  |

The only capacity priced between $29/MWh and the price cap was offered by peaking plant (which takes more than 5 minutes to synchronise). When Stanwell’s 3.19 pm rebid became effective, low-priced generation was either ramp rate limited, fully dispatched or trapped or stranded in FCAS. The dispatch price increased from $29/MWh at 3.25 pm to the price cap at 3.30 pm, set by Stanwell’s units.

**Wednesday, 10 December**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Time** | **Price ($/MWh)** | | | **Demand (MW)** | | | **Availability (MW)** | | |
|  | **Actual** | **4 hr forecast** | **12 hr forecast** | **Actual** | **4 hr forecast** | **12 hr forecast** | **Actual** | **4 hr forecast** | **12 hr forecast** |
| **2:30 PM** | 2302.78 | 30.48 | 42.82 | 7619 | 7344 | 7457 | 9632 | 9692 | 9697 |
| **3:00 PM** | 2302.53 | 30.40 | 42.88 | 7610 | 7370 | 7483 | 9446 | 9698 | 9697 |
| **3:30 PM** | 2303.30 | 30.00 | 43.00 | 7713 | 7404 | 7512 | 9478 | 9813 | 9810 |
| **4:00 PM** | 4519.92 | 31.00 | 43.90 | 7767 | 7495 | 7590 | 9554 | 9806 | 9810 |
| **4:30 PM** | 4489.95 | 37.50 | 43.00 | 7835 | 7592 | 7618 | 9264 | 9806 | 9810 |
| **5:00 PM** | 2321.94 | 39.49 | 41.74 | 7879 | 7623 | 7655 | 9287 | 9656 | 9782 |

**Relevant rebidding for 10 December 2.30 pm trading interval**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | **Rebid reason** |
| 2.15 pm | 2.25 pm | Callide Power | Callide C | 100 | 13 | 13 500 | 1413A constraint - QNI almost binding |
| 2.17 pm | 2.25 pm | CS Energy | Gladstone | 175 | 28 | 13 500 | 1416A interconnector constraint-QNI almost binding-SL |
| 2.21 pm | 2.30 pm | CS Energy | Gladstone | 120 | 28 | 13 500 | 1418P match unit ramp rate output-SL |
| 2.22 pm | 2.30 pm | Millmerran Energy | Millmerran | 25 | 13 | 13 500 | 14:21A RRP above PD |
| 2.23 pm | 2.30 pm | Callide Power | Callide C | 60 | 13 | 13 500 | 14:21A RRP above PD-SL |
| **Total capacity rebid from low to high prices** | | | | **480** |  |  |  |

With low-priced capacity either ramp rate limited or fully dispatched, the dispatch price increased from $44/MWh at 2.20 pm to $120/MWh at 2.25 pm and then to the price cap at 2.30 pm. This was also the time at which the CS Energy, Millmerran and Callide Power Trading (2.21 pm, 2.22 pm and 2.23 pm, respectively) rebids became effective.

**Relevant rebidding for 10 December 3 pm trading interval**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | **Rebid reason** |
| 2.43 pm | 2.50 pm | Callide Power | Callide C | 100 | 13 | 13 500 | 1442A constraint - QNI almost binding |
| 2.46 pm | 2.55 pm | CS Energy | Gladstone | 175 | 28 | 13 500 | 1444A interconnector constraint-QNI almost binding-SL |
| **Total capacity rebid from low to high prices** | | | | **275** |  |  |  |

With low-priced capacity either ramp rate limited or fully dispatched, the dispatch price increased from $31/MWh at 2.45 pm to $105/MWh at 2.50 pm and then to the price cap at 2.55 pm. This was the time at which the CS Energy 2.46 pm rebid became effective.

**Relevant rebidding for 10 December 3.30 pm trading interval**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | **Rebid reason** |
| 3.14 pm | 3.25 pm | Callide Power | Callide C | 100 | 13 | 13 500 | 1513A constraint QNI binding |
| 3.17 pm | 3.25 pm | CS Energy | Gladstone | 175 | 28 | 13 500 | 1515A interconnector constraint-QNI almost binding-SL |
| 3.20 pm | 3.30 pm | CS Energy | Gladstone | 120 | 28 | 13 500 | 1515A interconnector constraint-QNI almost binding-SL |
| 3.23 pm | 3.30 pm | Millmerran Energy | Millmerran | 20 | 7 | 13 500 | 15:20A 57MW drop in QNI flow for 15:30 5MPD 1520/15 |
| 3.23 pm | 3.30 pm | Callide Power | Callide C | 60 | 13 | 13 500 | 1521A change in QNI 5min PD flow - SL |
| **Total capacity rebid from low to high prices** | | | | **475** |  |  |  |

With low-priced capacity either ramp rate limited or fully dispatched the dispatch price increased from $31/MWh at 3.20 pm to $200/MWh at 3.25 pm and then to the price cap at 3.30 pm. This was also the time when the CS Energy, Millmerran and Callide Power (3.20 pm and 3.23 pm, respectively) rebids became effective.

**Relevant rebidding for 10 December 4 pm trading interval**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | **Rebid reason** |
| 3.42 pm | 3.50 pm | Callide Power | Callide C | 100 | 13 | 13 500 | 1541A negative residue settlement |
| 3.45 pm | 3.55 pm | CS Energy | Gladstone | 115 | 28 | 13 500 | 1545A negative residue settlement-SL |
| 3.48 pm | 3.55 pm | CS Energy | Gladstone | 80 | 28 | 13 500 | 1546A negative residue settlement-SL |
| 3.50 pm | 4 pm | Callide Power | Callide C | 60 | 13 | 13 500 | 1544A change in 5Min pd QNI flow -SL |
| 3.51 pm | 4 pm | Millmerran Energy | Millmerran | 20 | 13 | 13 500 | 15:49A 5MPD QNI flow for 16:00 run 35/40 – 1 To – 109MW |
| **Total capacity rebid from low to high prices** | | | | **375** |  |  |  |

With low-priced capacity either ramp rate limited or fully dispatched, the dispatch price increased from $31/MWh at 3.50 pm to price cap at 3.55 pm and 4 pm. This was also when a number of CS Energy, Callide Power and Millmerran rebids become effective.

**Relevant rebidding for 10 December 4.30 pm trading interval**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | **Rebid reason** |
| 4.06 pm | 4.15 pm | Callide Power | Callide C | 100 | 13 | 13 500 | 1604A negative residue settlement |
| 4.11 pm | 4.20 pm | CS Energy | Gladstone | 85 | 28 | 13 500 | 1610A negative residue settlement-SL |
| 4.12 pm | 4.20 pm | Stanwell | Stanwell, Tarong | 175 | 290 | 6667 | 1605A material change in QLD generation: Wivenhoe offline |
| 4.17 pm | 4.25 pm | CS Energy | Gladstone | 80 | 28 | 13 500 | 1616A negative residue settlement-SL |
| **Total capacity rebid from low to high prices** | | | | **440** |  |  |  |

With low-priced capacity either ramp rate limited or fully dispatched the dispatch price increased from $43/MWh at 4.15 pm to $6667/MWh at 4.20 pm and 4.25 pm. There was a coincident increase in 5-minute demand from 4.15 pm to 4.20 pm of around 70 MW. This was also when the CS Energy and Stanwell rebids made from 4.11 pm to 4.17 pm took effect.

**Relevant rebidding for 10 December 5 pm trading interval**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | **Rebid reason** |
| 4.41 pm | 4.50 pm | Callide Power | Callide C | 100 | 13 | 13 500 | 1640A negative residue settlement |
| 4.44 pm | 4.55 pm | CS Energy | Gladstone | 85 | 28 | 13 500 | 1642A negative residue settlement-SL |
| 4.51 pm | 5 pm | CS Energy | Gladstone | 160 | 28 | 13 500 | 1650A negative residue settlement-SL |
| 4.51 pm | 5 pm | Callide Power | Callide C | 60 | 13 | 13 500 | 1649A change 5 min PD QNI flow limit -SL |
| 4.52 pm | 5 pm | Millmerran Energy | Millmerran | 20 | 7 | 13 500 | 16:51 A RRP above PD SL |
| **Total capacity rebid from low to high prices** | | | | **425** |  |  |  |

With low-priced capacity either ramp rate limited or fully dispatched the dispatch price increased from $38/MWh at 4.50 pm to $298/MWh at 4.55 pm and then to the price cap at 5 pm. This was when the CS Energy, Callide Power and Millmerran rebids (made at 4.51 pm and 4.52 pm) became effective.

**Thursday, 11 December**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Time** | **Price ($/MWh)** | | | **Demand (MW)** | | | **Availability (MW)** | | |
|  | **Actual** | **4 hr forecast** | **12 hr forecast** | **Actual** | **4 hr forecast** | **12 hr forecast** | **Actual** | **4 hr forecast** | **12 hr forecast** |
| **1:00 PM** | 2351.52 | 48.48 | 31.00 | 8077 | 7676 | 7487 | 9530 | 9940 | 10 055 |

**Relevant rebidding for 11 December 1 pm trading interval**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Time submitted** | **Time effective** | **Participant** | **Station** | **Capacity rebid (MW)** | **Price from ($/MWh)** | **Price to ($/MWh)** | | **Rebid reason** |
| 12.27 pm | 12.35 pm | Callide Power | Callide C | 87 | 13 | 13 500 | 1226A constraint QNI binding | |
| 12.28 pm | 12.35 pm | CS Energy | Gladstone | 385 | 28 | 13 500 | 1222P technical issues-sync cond mode-SL | |
| 12.31 pm | 12.40 pm | CS Energy | Gladstone | 90 | 28 | 13 500 | 1228P technical issues-sync cond mode-SL | |
| 12.38 pm | 12.45 pm | Stanwell | Stanwell | 125 | 290 | 13 500 | 1237A change in QLD generation - Mt Stuart | |
| 12.39 pm | 12.50 pm | CS Energy | Gladstone | 90 | 13 500 | 28 | 1237A change in QLD generation - 3 Mt Stuart units started-SL | |
| 12.50 pm | 1 pm | Stanwell | Stanwell, Kareeya, Tarong | 321 | <52 | 13 500 | 1249A decrease in QLD demand -107MW DI1245V1250 | |
| 12.50 pm | 1 pm | Callide Power | Callide C | 40 | 13 | 13 500 | 1239A change in 5min PD QNI flow - SL | |
| **Total capacity rebid from low to high prices** | | | | **1048** |  |  |  | |

With low-priced capacity either ramp rate limited or fully dispatched the dispatch price increased from $43/MWh at 12.55 pm to the price cap at 1 pm. This was also when Stanwell and Callide Power’s 12.50 pm rebids took effect.

## Financial markets

Figure 10 shows for all mainland regions the prices for base contracts (and total traded quantities for the week) for each quarter for the next four financial years.

Figure 10: Quarterly base future prices Q4 2014 – Q3 2018

Source: [ASXEnergy.com.au](https://asxenergy.com.au/)



Figure 11 shows how the price for each regional Quarter 1 2015 base contract has changed over the last 10 weeks (as well as the total number of trades each week). The closing quarter 1 2013 and quarter 1 2014 prices are also shown. The AER notes that data for South Australia is less reliable due to very low numbers of trades.

*Note: The high volume of trades in figure 11 is due to options on calendar year base load expiring on Wednesday 19 November.*

Figure 11: Price of Q1 2015 base contracts over the past 10 weeks (and the past 2 years)



Note: Base contract prices are shown for each of the current week and the previous 9 weeks, with average prices shown for yearly periods 1 and 2 years prior to the current year

Source: [ASXEnergy.com.au](https://asxenergy.com.au/)

Prices of other financial products (including longer-term price trends) are available in the Industry information- statistics section of our website.

Figure 12 shows how the price for each regional Quarter 1 2015 cap contract has changed over the last 10 weeks (as well as the total number of trades each week). The closing quarter 1 2013 and quarter 1 2014 prices are also shown.

Figure 12: Price of Q1 2015 cap contracts over the past 10 weeks (and the past 2 years)



Source: [ASXEnergy.com.au](https://asxenergy.com.au/)

**Australian Energy Regulator**

**January 2015**

**Appendix A – Price setter**

The following table identifies for the trading interval in which the spot price exceeded $250/MWh, each five minute dispatch interval price and the generating units involved in setting the energy price. The 30-minute spot price is the average of the six dispatch interval prices. The following tables highlight that in all but three trading intervals, the high dispatch prices occurred late in the trading interval typically with a duration of one trading interval only.

**8 December 2014 1:30 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| **13:05** | $34.02 | GDF Suez | LOYYB1 | Energy | $28.00 | 0.61 | $17.08 |
|  |  | GDF Suez | LOYYB2 | Energy | $28.00 | 0.61 | $17.08 |
| **13:10** | $39.62 | Macquarie Generation | LD03 | Energy | $35.96 | 1.10 | $39.56 |
| **13:15** | $50.33 | Alinta Power | NPS2 | Energy | $41.50 | 1.21 | $50.22 |
| **13:20** | $43.00 | Stanwell | TARONG#1 | Energy | $43.00 | 1.00 | $43.00 |
| **13:25** | $6666.66 | Stanwell | STAN-1 | Energy | $6666.66 | 0.14 | $933.33 |
|  |  | Stanwell | STAN-3 | Energy | $6666.66 | 0.14 | $933.33 |
|  |  | Stanwell | TARONG#1 | Energy | $6666.66 | 0.24 | $1600.00 |
|  |  | Stanwell | TARONG#3 | Energy | $6666.66 | 0.24 | $1600.00 |
|  |  | Stanwell | TARONG#4 | Energy | $6666.66 | 0.24 | $1600.00 |
| **13:30** | $36.28 | Delta Electricity | VP5 | Energy | $32.70 | 0.37 | $12.10 |
|  |  | Delta Electricity | VP6 | Energy | $32.70 | 0.74 | $24.20 |
| **Spot Price** | | **$1144.99/MWh** |  |  |  |  |  |

**8 December 2014 2:30 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 14:05 | $43.00 | Stanwell | STAN-3 | Energy | $43.00 | 0.50 | $21.50 |
|  |  | Stanwell | TARONG#1 | Energy | $43.00 | 0.50 | $21.50 |
| 14:10 | $39.20 | CS Energy | W/HOE#1 | Raise 5 min | $2.00 | 1.11 | $2.22 |
|  |  | Delta Electricity | VP5 | Raise 6 sec | $2.00 | 0.74 | $1.48 |
|  |  | LYMMCO | LYA3 | Raise 5 min | $1.20 | -1.11 | -$1.33 |
|  |  | LYMMCO | LYA3 | Raise reg | $0.80 | 1.11 | $0.89 |
|  |  | LYMMCO | LYA3 | Raise 60 sec | $0.80 | -1.11 | -$0.89 |
|  |  | LYMMCO | LYA3 | Raise 6 sec | $0.80 | -0.74 | -$0.59 |
|  |  | Eraring Energy | ER04 | Energy | $32.82 | 1.11 | $36.43 |
|  |  | Eraring Energy | ER04 | Raise reg | $0.00 | -1.11 | $0.00 |
|  |  | AGL (SA) | TORRB2 | Raise 60 sec | $0.89 | 1.11 | $0.99 |
| 14:15 | $36.32 | Delta Electricity | VP5 | Energy | $32.70 | 1.11 | $36.30 |
| 14:20 | $46.53 | Snowy Hydro | UPPTUMUT | Energy | $41.96 | 1.11 | $46.58 |
| 14:25 | $45.91 | Snowy Hydro | UPPTUMUT | Energy | $41.96 | 1.09 | $45.74 |
| 14:30 | $6666.66 | Stanwell | STAN-2 | Energy | $6666.66 | 0.08 | $533.33 |
|  |  | Stanwell | TARONG#1 | Energy | $6666.66 | 0.38 | $2533.33 |
|  |  | Stanwell | TARONG#3 | Energy | $6666.66 | 0.27 | $1800.00 |
|  |  | Stanwell | TARONG#4 | Energy | $6666.66 | 0.27 | $1800.00 |
| **Spot Price** | | **$1146.27/MWh** |  |  |  |  |  |

**8 December 2014 4:30 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 16:05 | $44.60 | Snowy Hydro | UPPTUMUT | Energy | $41.96 | 1.06 | $44.48 |
| 16:10 | $45.69 | Snowy Hydro | UPPTUMUT | Energy | $41.96 | 1.09 | $45.74 |
| 16:15 | $45.69 | Snowy Hydro | UPPTUMUT | Energy | $41.96 | 1.09 | $45.74 |
| 16:20 | $45.70 | Snowy Hydro | UPPTUMUT | Energy | $41.96 | 1.09 | $45.74 |
| 16:25 | $55.65 | Snowy Hydro | UPPTUMUT | Energy | $49.90 | 1.12 | $55.89 |
| 16:30 | $13500.00 | Callide Power | CPP\_3 | Energy | $13500.00 | 0.10 | $1350.00 |
|  |  | CS Energy | GSTONE2 | Energy | $13500.00 | 0.06 | $810.00 |
|  |  | CS Energy | GSTONE5 | Energy | $13500.00 | 0.06 | $810.00 |
|  |  | CS Energy | W/HOE#1 | Energy | $13500.00 | 0.22 | $2970.00 |
|  |  | Stanwell | BARRON-1 | Energy | $13500.00 | 0.01 | $135.00 |
|  |  | Stanwell | KAREEYA1 | Energy | $13500.00 | 0.02 | $270.00 |
|  |  | Stanwell | KAREEYA2 | Energy | $13500.00 | 0.02 | $270.00 |
|  |  | Stanwell | KAREEYA4 | Energy | $13500.00 | 0.01 | $135.00 |
|  |  | Stanwell | STAN-2 | Energy | $13500.00 | 0.15 | $2025.00 |
|  |  | Stanwell | STAN-3 | Energy | $13500.00 | 0.12 | $1620.00 |
|  |  | Stanwell | STAN-4 | Energy | $13500.00 | 0.12 | $1620.00 |
|  |  | Stanwell | TARONG#4 | Energy | $13500.00 | 0.13 | $1755.00 |
| **Spot Price** | | **$2289.55/MWh** |  |  |  |  |  |

**9 December 2014 12:30 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 12:05 | $37.35 |  | OAKEY2 | Energy | $37.35 | 1.00 | $37.35 |
| 12:10 | $44.11 | Origin Energy | URANQ11 | Energy | $43.29 | 1.02 | $44.16 |
| 12:15 | $46.54 | Alinta Power | NPS2 | Energy | $41.50 | 1.12 | $46.48 |
| 12:20 | $47.56 | Snowy Hydro | MURRAY | Energy | $41.94 | 1.13 | $47.39 |
| 12:25 | $164.98 | Braemar Power Projects | BRAEMAR1 | Energy | $164.98 | 0.33 | $54.44 |
|  |  | Braemar Power Projects | BRAEMAR2 | Energy | $164.98 | 0.33 | $54.44 |
|  |  | Braemar Power Projects | BRAEMAR3 | Energy | $164.98 | 0.33 | $54.44 |
| 12:30 | $10899.98 | Braemar Power Projects | BRAEMAR1 | Energy | $10899.98 | 0.29 | $3160.99 |
|  |  | Braemar Power Projects | BRAEMAR2 | Energy | $10899.98 | 0.37 | $4032.99 |
|  |  | Braemar Power Projects | BRAEMAR3 | Energy | $10899.98 | 0.35 | $3814.99 |
| **Spot Price** | | **$1873.42/MWh** |  |  |  |  |  |

**9 December 2014 13:30 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 13:05 | $30.00 | Stanwell | TARONG#3 | Energy | $30.00 | 0.50 | $15.00 |
|  |  | Stanwell | TARONG#4 | Energy | $30.00 | 0.50 | $15.00 |
| 13:10 | $31.00 | Stanwell | STAN-3 | Energy | $31.00 | 0.50 | $15.50 |
|  |  | Stanwell | STAN-4 | Energy | $31.00 | 0.50 | $15.50 |
| 13:15 | $52.21 | Delta Electricity | VP6 | Energy | $49.94 | 1.05 | $52.44 |
| 13:20 | $31.00 | Stanwell | STAN-3 | Energy | $31.00 | 1.00 | $31.00 |
| 13:25 | $300.98 | ERMPower and Arrow | BRAEMAR5 | Energy | $300.98 | 1.00 | $300.98 |
| 13:30 | $13500.00 | Callide Power | CPP\_3 | Energy | $13500.00 | 0.16 | $2160.00 |
|  |  | Callide Power | CPP\_4 | Energy | $13500.00 | 0.27 | $3645.00 |
|  |  | CS Energy | GSTONE1 | Energy | $13500.00 | 0.19 | $2565.00 |
|  |  | CS Energy | GSTONE4 | Energy | $13500.00 | 0.08 | $1080.00 |
|  |  | CS Energy | GSTONE5 | Energy | $13500.00 | 0.08 | $1080.00 |
|  |  | CS Energy | GSTONE6 | Energy | $13500.00 | 0.09 | $1215.00 |
|  |  | Millmerran | MPP\_2 | Energy | $13500.00 | 0.11 | $1485.00 |
|  |  | Stanwell | BARRON-2 | Energy | $13500.00 | 0.01 | $135.00 |
| **Spot Price** | | **$2324.20/MWh** |  |  |  |  |  |

**9 December 2014 14:00 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 13:35 | $28.90 | CS Energy | GSTONE1 | Energy | $28.90 | 0.07 | $2.02 |
|  |  | CS Energy | GSTONE4 | Energy | $28.90 | 0.31 | $8.96 |
|  |  | CS Energy | GSTONE5 | Energy | $28.90 | 0.31 | $8.96 |
|  |  | CS Energy | GSTONE6 | Energy | $28.90 | 0.31 | $8.96 |
| 13:40 | $31.00 | Stanwell | STAN-4 | Energy | $31.00 | 1.00 | $31.00 |
| 13:45 | $13500.00 | CS Energy | GSTONE1 | Energy | $13500.00 | 0.24 | $3240.00 |
|  |  | CS Energy | W/HOE#1 | Energy | $13500.00 | 0.70 | $9450.00 |
|  |  | Stanwell | BARRON-2 | Energy | $13500.00 | 0.02 | $270.00 |
|  |  | Stanwell | KAREEYA2 | Energy | $13500.00 | 0.04 | $540.00 |
| 13:50 | $28.90 | CS Energy | GSTONE6 | Energy | $28.90 | 1.00 | $28.90 |
| 13:55 | $15.43 | CS Energy | W/HOE#1 | Energy | $15.43 | 1.00 | $15.43 |
|  |  | CS Energy | W/HOE#1 | Raise 5 min | $2.00 | -0.83 | -$1.66 |
|  |  | Delta Electricity | VP5 | Raise 5 min | $2.00 | 0.83 | $1.66 |
| 14:00 | $0.00 | CS Energy | W/HOE#1 | Energy | $0.00 | 1.00 | $0.00 |
|  |  | CS Energy | W/HOE#1 | Raise 5 min | $2.00 | -0.83 | -$1.66 |
|  |  | Delta Electricity | VP5 | Raise reg | $2.00 | 0.83 | $1.66 |
| **Spot Price** | | **$2267.37/MWh** |  |  |  |  |  |

**9 December 2014 14:30 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 14:05 | $13500.00 | CS Energy | GSTONE1 | Energy | $13500.00 | 0.16 | $2160.00 |
|  |  | CS Energy | W/HOE#1 | Energy | $13500.00 | 0.49 | $6615.00 |
|  |  | Stanwell | BARRON-1 | Energy | $13500.00 | 0.03 | $405.00 |
|  |  | Stanwell | BARRON-2 | Energy | $13500.00 | 0.01 | $135.00 |
|  |  | Stanwell | STAN-3 | Energy | $13500.00 | 0.05 | $675.00 |
|  |  | Stanwell | TARONG#3 | Energy | $13500.00 | 0.13 | $1755.00 |
|  |  | Stanwell | TARONG#4 | Energy | $13500.00 | 0.13 | $1755.00 |
| 14:10 | $28.90 | CS Energy | GSTONE4 | Energy | $28.90 | 0.50 | $14.45 |
|  |  | CS Energy | GSTONE5 | Energy | $28.90 | 0.50 | $14.45 |
| 14:15 | $0.00 | CS Energy | W/HOE#1 | Energy | $0.00 | 1.00 | $0.00 |
| 14:20 | -$1.00 | Stanwell | KAREEYA1 | Energy | -$1.00 | 0.36 | -$0.36 |
|  |  | Stanwell | KAREEYA2 | Energy | -$1.00 | 0.36 | -$0.36 |
|  |  | Stanwell | KAREEYA4 | Energy | -$1.00 | 0.28 | -$0.28 |
| 14:25 | -$0.99 | Stanwell | BARRON-1 | Energy | -$0.99 | 0.50 | -$0.50 |
|  |  | Stanwell | BARRON-2 | Energy | -$0.99 | 0.50 | -$0.50 |
| 14:30 | $13.94 | Callide Power | CPP\_4 | Energy | $13.94 | 1.00 | $13.94 |
| **Spot Price** | | **$2256.81/MWh** |  |  |  |  |  |

**9 December 2014 15:00 PM**

| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 14:35 | $13500.00 | CS Energy | W/HOE#1 | Energy | $13500.00 | 1.00 | $13500.00 |
|  |  | CS Energy | W/HOE#1 | Raise 5 min | $0.50 | -0.83 | -$0.42 |
|  |  | Eraring Energy | ER01 | Energy | $32.82 | -0.28 | -$9.19 |
|  |  | Eraring Energy | ER01 | Raise 5 min | $2.45 | 0.28 | $0.69 |
|  |  | Eraring Energy | ER03 | Energy | $32.82 | -0.28 | -$9.19 |
|  |  | Eraring Energy | ER03 | Raise 5 min | $2.45 | 0.28 | $0.69 |
|  |  | Eraring Energy | ER04 | Energy | $32.82 | -0.28 | -$9.19 |
|  |  | Eraring Energy | ER04 | Raise 5 min | $2.45 | 0.28 | $0.69 |
|  |  | Origin Energy | URANQ11 | Energy | $32.83 | 0.83 | $27.25 |
| 14:40 | -$997.67 | CS Energy | W/HOE#1 | Energy | -$1000.00 | 1.00 | -$1000.00 |
|  |  | CS Energy | W/HOE#1 | Raise 5 min | $0.01 | -0.83 | -$0.01 |
|  |  | Macquarie Generation | BW01 | Raise reg | $2.80 | 0.83 | $2.32 |
| 14:45 | -$998.09 | CS Energy | W/HOE#1 | Energy | -$1000.00 | 1.00 | -$1000.00 |
|  |  | CS Energy | W/HOE#1 | Raise 5 min | $0.50 | -0.83 | -$0.42 |
|  |  | Macquarie Generation | BW04 | Raise reg | $2.80 | 0.83 | $2.32 |
| 14:50 | -$1000.00 | ERMPower and Arrow | BRAEMAR5 | Energy | -$1000.00 | 0.07 | -$70.00 |
|  |  | CS Energy | GSTONE6 | Energy | -$1000.00 | 0.11 | -$110.00 |
|  |  | Stanwell | BARRON-2 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | KAREEYA1 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | KAREEYA2 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | KAREEYA4 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | MACKAYGT | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | STAN-3 | Energy | -$1000.00 | 0.16 | -$160.00 |
|  |  | Stanwell | STAN-4 | Energy | -$1000.00 | 0.16 | -$160.00 |
|  |  | Stanwell | TARONG#3 | Energy | -$1000.00 | 0.14 | -$140.00 |
|  |  | Stanwell | TARONG#4 | Energy | -$1000.00 | 0.14 | -$140.00 |
|  |  | Stanwell | TNPS1 | Energy | -$1000.00 | 0.16 | -$160.00 |

| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 14:55 | -$1000.00 | ERMPower and Arrow | BRAEMAR5 | Energy | -$1000.00 | 0.06 | -$60.00 |
|  |  | CS Energy | GSTONE4 | Energy | -$1000.00 | 0.11 | -$110.00 |
|  |  | CS Energy | GSTONE5 | Energy | -$1000.00 | 0.11 | -$110.00 |
|  |  | CS Energy | GSTONE6 | Energy | -$1000.00 | 0.09 | -$90.00 |
|  |  | Stanwell | BARRON-2 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | KAREEYA1 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | KAREEYA2 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | KAREEYA4 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | MACKAYGT | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | STAN-3 | Energy | -$1000.00 | 0.14 | -$140.00 |
|  |  | Stanwell | STAN-4 | Energy | -$1000.00 | 0.14 | -$140.00 |
|  |  | Stanwell | TARONG#1 | Energy | -$1000.00 | 0.05 | -$50.00 |
|  |  | Stanwell | TARONG#3 | Energy | -$1000.00 | 0.12 | -$120.00 |
|  |  | Stanwell | TNPS1 | Energy | -$1000.00 | 0.14 | -$140.00 |
| 15:00 | -$1000.00 | ERMPower and Arrow | BRAEMAR5 | Energy | -$1000.00 | 0.04 | -$40.00 |
|  |  | ERMPower and Arrow | BRAEMAR7 | Energy | -$1000.00 | 0.04 | -$40.00 |
|  |  | Callide Power | CPP\_3 | Energy | -$1000.00 | 0.11 | -$110.00 |
|  |  | Callide Power | CPP\_4 | Energy | -$1000.00 | 0.09 | -$90.00 |
|  |  | CS Energy | GSTONE1 | Energy | -$1000.00 | 0.08 | -$80.00 |
|  |  | CS Energy | GSTONE4 | Energy | -$1000.00 | 0.08 | -$80.00 |
|  |  | CS Energy | GSTONE5 | Energy | -$1000.00 | 0.08 | -$80.00 |
|  |  | CS Energy | GSTONE6 | Energy | -$1000.00 | 0.07 | -$70.00 |
|  |  | Stanwell | BARRON-2 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | KAREEYA1 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | KAREEYA2 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | KAREEYA4 | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | MACKAYGT | Energy | -$1000.00 | 0.01 | -$10.00 |
|  |  | Stanwell | STAN-3 | Energy | -$1000.00 | 0.10 | -$100.00 |
|  |  | Stanwell | STAN-4 | Energy | -$1000.00 | 0.10 | -$100.00 |
|  |  | Stanwell | TARONG#3 | Energy | -$1000.00 | 0.09 | -$90.00 |
|  |  | Stanwell | TARONG#4 | Energy | -$1000.00 | 0.09 | -$90.00 |
| **Spot Price** | | **$1417.37/MWh** |  |  |  |  |  |

**9 December 2014 15:30 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 15:05 | $21.98 | Braemar Power Projects | BRAEMAR1 | Energy | $21.98 | 0.35 | $7.69 |
|  |  | Braemar Power Projects | BRAEMAR2 | Energy | $21.98 | 0.33 | $7.25 |
|  |  | Braemar Power Projects | BRAEMAR3 | Energy | $21.98 | 0.32 | $7.03 |
| 15:10 | $13.94 | Callide Power | CPP\_3 | Energy | $13.94 | 0.60 | $8.36 |
|  |  | Callide Power | CPP\_4 | Energy | $13.94 | 0.40 | $5.58 |
| 15:15 | $28.90 | CS Energy | GSTONE4 | Energy | $28.90 | 0.33 | $9.54 |
|  |  | CS Energy | GSTONE5 | Energy | $28.90 | 0.33 | $9.54 |
|  |  | CS Energy | GSTONE6 | Energy | $28.90 | 0.33 | $9.54 |
| 15:20 | $28.90 | CS Energy | GSTONE4 | Energy | $28.90 | 0.33 | $9.54 |
|  |  | CS Energy | GSTONE5 | Energy | $28.90 | 0.33 | $9.54 |
|  |  | CS Energy | GSTONE6 | Energy | $28.90 | 0.33 | $9.54 |
| 15:25 | $28.90 | CS Energy | GSTONE1 | Energy | $28.90 | 0.25 | $7.23 |
|  |  | CS Energy | GSTONE4 | Energy | $28.90 | 0.25 | $7.23 |
|  |  | CS Energy | GSTONE5 | Energy | $28.90 | 0.25 | $7.23 |
|  |  | CS Energy | GSTONE6 | Energy | $28.90 | 0.25 | $7.23 |
| 15:30 | $13500.00 | Callide Power | CPP\_3 | Energy | $13500.00 | 0.16 | $2160.00 |
|  |  | CS Energy | W/HOE#1 | Energy | $13500.00 | 0.50 | $6750.00 |
|  |  | Stanwell | BARRON-2 | Energy | $13500.00 | 0.01 | $135.00 |
|  |  | Stanwell | KAREEYA1 | Energy | $13500.00 | 0.04 | $540.00 |
|  |  | Stanwell | KAREEYA2 | Energy | $13500.00 | 0.04 | $540.00 |
|  |  | Stanwell | KAREEYA4 | Energy | $13500.00 | 0.03 | $405.00 |
|  |  | Stanwell | STAN-3 | Energy | $13500.00 | 0.06 | $810.00 |
|  |  | Stanwell | STAN-4 | Energy | $13500.00 | 0.06 | $810.00 |
|  |  | Stanwell | TARONG#3 | Energy | $13500.00 | 0.11 | $1485.00 |
| **Spot Price** | | **$2270.44/MWh** |  |  |  |  |  |

**10 December 2014 14:30 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 14:05 | $51.76 | Delta Electricity | VP6 | Energy | $49.94 | 1.04 | $51.94 |
| 14:10 | $48.82 | Snowy Hydro | MURRAY | Energy | $41.94 | 1.16 | $48.65 |
| 14:15 | $52.20 | Delta Electricity | VP6 | Energy | $49.94 | 1.05 | $52.44 |
| 14:20 | $43.87 | Snowy Hydro | UPPTUMUT | Energy | $41.96 | 1.05 | $44.06 |
| 14:25 | $120.00 | Stanwell | STAN-3 | Energy | $120.00 | 0.48 | $57.60 |
|  |  | Stanwell | TARONG#3 | Energy | $120.00 | 0.52 | $62.40 |
| 14:30 | $13500.00 | Callide Power | CPP\_3 | Energy | $13500.00 | 0.28 | $3780.00 |
|  |  | Callide Power | CPP\_4 | Energy | $13500.00 | 0.28 | $3780.00 |
|  |  | CS Energy | GSTONE4 | Energy | $13500.00 | 0.10 | $1350.00 |
|  |  | CS Energy | GSTONE5 | Energy | $13500.00 | 0.10 | $1350.00 |
|  |  | CS Energy | GSTONE6 | Energy | $13500.00 | 0.13 | $1755.00 |
|  |  | CS Energy | GSTONE6 | Raise reg | $2.00 | -0.13 | -$0.26 |
|  |  | Hydro Tasmania | POAT220 | Raise 5 min | $2.00 | 0.13 | $0.26 |
|  |  | Millmerran | MPP\_2 | Energy | $13500.00 | 0.09 | $1215.00 |
|  |  | Stanwell | BARRON-1 | Energy | $13500.00 | 0.03 | $405.00 |
| **Spot Price** | | **$2302.78/MWh** |  |  |  |  |  |

**10 December 2014 15:00 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 14:35 | $28.90 | CS Energy | GSTONE1 | Energy | $28.90 | 0.50 | $14.45 |
|  |  | CS Energy | GSTONE5 | Energy | $28.90 | 0.50 | $14.45 |
| 14:40 | $30.48 | CS Energy | GSTONE6 | Energy | $28.90 | 1.00 | $28.90 |
|  |  | CS Energy | GSTONE6 | Raise 60 sec | $0.01 | -1.00 | -$0.01 |
|  |  | CS Energy | GSTONE6 | Raise 6 sec | $0.01 | -1.00 | -$0.01 |
|  |  | Hydro Tasmania | POAT110 | Raise 6 sec | $0.80 | 1.00 | $0.80 |
|  |  | LYMMCO | LYA1 | Raise 60 sec | $0.80 | 1.00 | $0.80 |
| 14:45 | $30.89 | CS Energy | GSTONE6 | Energy | $28.90 | 1.00 | $28.90 |
|  |  | CS Energy | GSTONE6 | Raise reg | $0.01 | -1.00 | -$0.01 |
|  |  | Hydro Tasmania | POAT110 | Raise 5 min | $2.00 | 1.00 | $2.00 |
| 14:50 | $104.94 | Delta Electricity | VP6 | Raise 60 sec | $2.00 | -1.03 | -$2.06 |
|  |  | Infigen | LKBONNY2 | Energy | -$26.78 | 0.03 | -$0.80 |
|  |  | Macquarie Generation | BW01 | Raise 6 sec | $2.80 | -1.03 | -$2.88 |
|  |  | Snowy Hydro | MURRAY | Energy | $49.90 | 1.12 | $55.89 |
|  |  | Stanwell | STAN-1 | Raise 60 sec | $4.50 | 1.03 | $4.64 |
|  |  | Stanwell | STAN-1 | Raise 6 sec | $49.00 | 1.03 | $50.47 |
| 14:55 | $13500.00 | CS Energy | GSTONE6 | Energy | $13500.00 | 0.15 | $2025.00 |
|  |  | CS Energy | GSTONE6 | Lower reg | $0.50 | 0.15 | $0.08 |
|  |  | CS Energy | W/HOE#1 | Energy | $13500.00 | 0.56 | $7560.00 |
|  |  | LYMMCO | LYA2 | Lower 5 min | $0.50 | -0.15 | -$0.08 |
|  |  | Stanwell | BARRON-1 | Energy | $13500.00 | 0.03 | $405.00 |
|  |  | Stanwell | STAN-2 | Energy | $13500.00 | 0.26 | $3510.00 |
| 15:00 | $120.00 | Stanwell | STAN-1 | Energy | $120.00 | 0.25 | $30.00 |
|  |  | Stanwell | STAN-3 | Energy | $120.00 | 0.25 | $30.00 |
|  |  | Stanwell | STAN-4 | Energy | $120.00 | 0.25 | $30.00 |
|  |  | Stanwell | TARONG#3 | Energy | $120.00 | 0.26 | $31.20 |
| **Spot Price** | | **$2302.53/MWh** |  |  |  |  |  |

**10 December 2014 15:30 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 15:05 | $28.90 | CS Energy | GSTONE6 | Energy | $28.90 | 1.00 | $28.90 |
| 15:10 | $28.90 | CS Energy | GSTONE5 | Energy | $28.90 | 1.00 | $28.90 |
| 15:15 | $31.00 | Stanwell | STAN-1 | Energy | $31.00 | 0.33 | $10.23 |
|  |  | Stanwell | STAN-3 | Energy | $31.00 | 0.33 | $10.23 |
|  |  | Stanwell | STAN-4 | Energy | $31.00 | 0.33 | $10.23 |
| 15:20 | $31.00 | Stanwell | STAN-1 | Energy | $31.00 | 0.33 | $10.23 |
|  |  | Stanwell | STAN-3 | Energy | $31.00 | 0.33 | $10.23 |
|  |  | Stanwell | STAN-4 | Energy | $31.00 | 0.33 | $10.23 |
| 15:25 | $200.00 | ERMPower and Arrow | BRAEMAR7 | Energy | $200.00 | 1.00 | $200.00 |
| 15:30 | $13500.00 | CS Energy | GSTONE4 | Energy | $13500.00 | 0.11 | $1485.00 |
|  |  | CS Energy | GSTONE5 | Energy | $13500.00 | 0.11 | $1485.00 |
|  |  | CS Energy | GSTONE6 | Energy | $13500.00 | 0.14 | $1890.00 |
|  |  | CS Energy | W/HOE#1 | Energy | $13500.00 | 0.52 | $7020.00 |
|  |  | Millmerran | MPP\_2 | Energy | $13500.00 | 0.10 | $1350.00 |
|  |  | Stanwell | BARRON-1 | Energy | $13500.00 | 0.03 | $405.00 |
| **Spot Price** | | **$2303.30/MWh** |  |  |  |  |  |

**10 December 2014 16:00 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 15:35 | $28.90 | CS Energy | GSTONE5 | Energy | $28.90 | 1.00 | $28.90 |
|  |  | CS Energy | GSTONE5 | Raise reg | $2.00 | -1.00 | -$2.00 |
|  |  | Delta Electricity | VP5 | Raise 5 min | $2.00 | 1.00 | $2.00 |
| 15:40 | $28.90 | CS Energy | GSTONE2 | Energy | $28.90 | 0.33 | $9.54 |
|  |  | CS Energy | GSTONE4 | Energy | $28.90 | 0.33 | $9.54 |
|  |  | CS Energy | GSTONE4 | Raise reg | $2.00 | -0.33 | -$0.66 |
|  |  | CS Energy | GSTONE5 | Energy | $28.90 | 0.33 | $9.54 |
|  |  | CS Energy | W/HOE#1 | Raise 5 min | $2.00 | 0.33 | $0.66 |
| 15:45 | $30.40 | CS Energy | GSTONE2 | Energy | $28.90 | 0.50 | $14.45 |
|  |  | CS Energy | GSTONE2 | Raise reg | $0.50 | -0.50 | -$0.25 |
|  |  | CS Energy | GSTONE4 | Energy | $28.90 | 0.50 | $14.45 |
|  |  | CS Energy | GSTONE4 | Raise reg | $0.50 | 0.50 | $0.25 |
|  |  | CS Energy | GSTONE4 | Raise 6 sec | $0.50 | -1.00 | -$0.50 |
|  |  | Delta Electricity | VP6 | Raise 6 sec | $2.00 | 1.00 | $2.00 |
| 15:50 | $31.29 | CS Energy | GSTONE2 | Energy | $28.90 | 0.50 | $14.45 |
|  |  | CS Energy | GSTONE2 | Raise reg | $0.01 | -0.50 | -$0.01 |
|  |  | CS Energy | GSTONE4 | Energy | $28.90 | 0.50 | $14.45 |
|  |  | CS Energy | GSTONE4 | Raise reg | $0.01 | -0.50 | -$0.01 |
|  |  | Stanwell | STAN-2 | Raise reg | $2.40 | 1.00 | $2.40 |
| 15:55 | $13500.00 | Callide Power | CPP\_3 | Energy | $13500.00 | 0.24 | $3240.00 |
|  |  | Callide Power | CPP\_4 | Energy | $13500.00 | 0.24 | $3240.00 |
|  |  | CS Energy | W/HOE#1 | Energy | $13500.00 | 0.48 | $6480.00 |
|  |  | Stanwell | BARRON-1 | Energy | $13500.00 | 0.03 | $405.00 |
| 16:00 | $13500.00 | Callide Power | CPP\_3 | Energy | $13500.00 | 0.18 | $2430.00 |
|  |  | Callide Power | CPP\_4 | Energy | $13500.00 | 0.18 | $2430.00 |
|  |  | CS Energy | GSTONE5 | Energy | $13500.00 | 0.11 | $1485.00 |
|  |  | CS Energy | GSTONE5 | Lower reg | $0.50 | 0.11 | $0.06 |
|  |  | CS Energy | GSTONE6 | Energy | $13500.00 | 0.11 | $1485.00 |
|  |  | CS Energy | W/HOE#1 | Energy | $13500.00 | 0.40 | $5400.00 |
|  |  | LYMMCO | LYA2 | Lower 5 min | $0.50 | -0.11 | -$0.06 |
|  |  | Stanwell | BARRON-1 | Energy | $13500.00 | 0.02 | $270.00 |
| **Spot Price** | | **$4519.92/MWh** |  |  |  |  |  |

**10 December 2014 16:30 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 16:05 | $31.29 | CS Energy | GSTONE2 | Energy | $28.90 | 0.50 | $14.45 |
|  |  | CS Energy | GSTONE2 | Raise reg | $0.01 | -0.50 | -$0.01 |
|  |  | CS Energy | GSTONE4 | Energy | $28.90 | 0.50 | $14.45 |
|  |  | CS Energy | GSTONE4 | Raise reg | $0.01 | -0.50 | -$0.01 |
|  |  | Stanwell | STAN-2 | Raise reg | $2.40 | 1.00 | $2.40 |
| 16:10 | $32.09 | CS Energy | GSTONE6 | Energy | $28.90 | 1.00 | $28.90 |
|  |  | CS Energy | GSTONE6 | Raise 60 sec | $0.01 | -1.00 | -$0.01 |
|  |  | CS Energy | GSTONE6 | Raise 6 sec | $0.01 | -1.00 | -$0.01 |
|  |  | Eraring Energy | ER01 | Energy | $35.97 | -0.50 | -$17.99 |
|  |  | Eraring Energy | ER01 | Raise 5 min | $0.00 | 0.50 | $0.00 |
|  |  | Eraring Energy | ER01 | Raise 60 sec | $0.00 | 0.50 | $0.00 |
|  |  | Eraring Energy | ER01 | Raise 6 sec | $0.00 | 0.50 | $0.00 |
|  |  | Eraring Energy | ER03 | Energy | $35.97 | -0.50 | -$17.99 |
|  |  | Eraring Energy | ER03 | Raise 5 min | $0.00 | 0.50 | $0.00 |
|  |  | Eraring Energy | ER03 | Raise 60 sec | $0.00 | 0.50 | $0.00 |
|  |  | Eraring Energy | ER03 | Raise 6 sec | $0.00 | 0.50 | $0.00 |
|  |  | Snowy Hydro | UPPTUMUT | Energy | $41.96 | 1.00 | $41.96 |
|  |  | EnergyAustralia | MP2 | Raise 5 min | $2.78 | -1.00 | -$2.78 |
| 16:15 | $43.00 | Stanwell | STAN-1 | Energy | $43.00 | 0.14 | $6.02 |
|  |  | Stanwell | STAN-3 | Energy | $43.00 | 0.14 | $6.02 |
|  |  | Stanwell | STAN-4 | Energy | $43.00 | 0.14 | $6.02 |
|  |  | Stanwell | TARONG#3 | Energy | $43.00 | 0.29 | $12.47 |
|  |  | Stanwell | TARONG#4 | Energy | $43.00 | 0.29 | $12.47 |
| 16:20 | $6666.66 | Stanwell | STAN-1 | Energy | $6666.66 | 0.20 | $1333.33 |
|  |  | Stanwell | STAN-3 | Energy | $6666.66 | 0.20 | $1333.33 |
|  |  | Stanwell | STAN-4 | Energy | $6666.66 | 0.14 | $933.33 |
|  |  | Stanwell | TARONG#3 | Energy | $6666.66 | 0.23 | $1533.33 |
|  |  | Stanwell | TARONG#4 | Energy | $6666.66 | 0.23 | $1533.33 |
| 16:25 | $6666.66 | Stanwell | STAN-1 | Energy | $6666.66 | 0.50 | $3333.33 |
|  |  | Stanwell | STAN-3 | Energy | $6666.66 | 0.50 | $3333.33 |
| 16:30 | $13500.00 | Callide Power | CPP\_3 | Energy | $13500.00 | 0.13 | $1755.00 |
|  |  | Callide Power | CPP\_4 | Energy | $13500.00 | 0.13 | $1755.00 |
|  |  | CS Energy | GSTONE5 | Energy | $13500.00 | 0.08 | $1080.00 |
|  |  | CS Energy | GSTONE6 | Energy | $13500.00 | 0.08 | $1080.00 |
|  |  | CS Energy | W/HOE#1 | Energy | $13500.00 | 0.28 | $3780.00 |
|  |  | Stanwell | STAN-2 | Energy | $13500.00 | 0.11 | $1485.00 |
|  |  | Stanwell | STAN-4 | Energy | $13500.00 | 0.04 | $540.00 |
|  |  | Stanwell | TARONG#3 | Energy | $13500.00 | 0.08 | $1080.00 |
|  |  | Stanwell | TARONG#4 | Energy | $13500.00 | 0.08 | $1080.00 |
| **Spot Price** | | **$4489.95/MWh** |  |  |  |  |  |

**10 December 2014 17:00 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 16:35 | $34.40 | CS Energy | GSTONE6 | Energy | $28.90 | 1.00 | $28.90 |
|  |  | CS Energy | GSTONE6 | Raise reg | $0.50 | -1.00 | -$0.50 |
|  |  | Snowy Hydro | UPPTUMUT | Raise reg | $6.00 | 1.00 | $6.00 |
| 16:40 | $29.90 | CS Energy | GSTONE6 | Energy | $28.90 | 1.00 | $28.90 |
|  |  | CS Energy | GSTONE6 | Raise reg | $2.00 | -1.00 | -$2.00 |
|  |  | Snowy Hydro | UPPTUMUT | Raise reg | $3.00 | 1.00 | $3.00 |
| 16:45 | $31.55 | CS Energy | GSTONE6 | Energy | $28.90 | 1.00 | $28.90 |
|  |  | CS Energy | GSTONE6 | Raise reg | $0.50 | -1.00 | -$0.50 |
|  |  | Eraring Energy | ER03 | Raise 5 min | $3.15 | 1.00 | $3.15 |
| 16:50 | $37.64 | Macquarie Generation | LD02 | Energy | $35.96 | 1.04 | $37.40 |
|  |  | Macquarie Generation | LD02 | Raise reg | $0.01 | -0.05 | $0.00 |
|  |  | Vic Power Trader | APD01 | Raise 5 min | $4.51 | 0.05 | $0.23 |
| 16:55 | $298.12 | Stanwell | TARONG#3 | Energy | $298.12 | 0.50 | $149.06 |
|  |  | Stanwell | TARONG#4 | Energy | $298.12 | 0.50 | $149.06 |
| 17:00 | $13500.00 | Origin Energy | MSTUART2 | Energy | $13500.00 | 0.11 | $1485.00 |
|  |  | CS Energy | W/HOE#1 | Energy | $13500.00 | 0.42 | $5670.00 |
|  |  | Millmerran | MPP\_1 | Energy | $13500.00 | 0.13 | $1755.00 |
|  |  | Millmerran | MPP\_2 | Energy | $13500.00 | 0.08 | $1080.00 |
|  |  | Stanwell | TARONG#3 | Energy | $13500.00 | 0.13 | $1755.00 |
|  |  | Stanwell | TARONG#4 | Energy | $13500.00 | 0.13 | $1755.00 |
| **Spot Price** | | **$2321.94/MWh** |  |  |  |  |  |

**11 December 2014 13:00 PM**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Time | Dispatch Price | Participant | Unit | Service | Offer price | Marginal Change | Contribution |
| 12:35 | $164.98 | Braemar Power Projects | BRAEMAR1 | Energy | $164.98 | 0.33 | $54.44 |
|  |  | Braemar Power Projects | BRAEMAR2 | Energy | $164.98 | 0.33 | $54.44 |
|  |  | Braemar Power Projects | BRAEMAR3 | Energy | $164.98 | 0.33 | $54.44 |
| 12:40 | $298.95 | Stanwell | STAN-1 | Energy | $298.95 | 0.28 | $83.71 |
|  |  | Stanwell | STAN-2 | Energy | $298.95 | 0.28 | $83.71 |
|  |  | Stanwell | STAN-3 | Energy | $298.95 | 0.16 | $47.83 |
|  |  | Stanwell | STAN-4 | Energy | $298.95 | 0.28 | $83.71 |
| 12:45 | $60.16 | Snowy Hydro | MURRAY | Energy | $41.94 | 1.43 | $59.97 |
| 12:50 | $42.55 | Snowy Hydro | MURRAY | Energy | $32.80 | 1.30 | $42.64 |
| 12:55 | $42.50 | Snowy Hydro | MURRAY | Energy | $32.80 | 1.30 | $42.64 |
| 13:00 | $13500.00 | Callide Power | CPP\_3 | Energy | $13500.00 | 0.08 | $1080.00 |
|  |  | Callide Power | CPP\_4 | Energy | $13500.00 | 0.08 | $1080.00 |
|  |  | CS Energy | GSTONE1 | Energy | $13500.00 | 0.04 | $540.00 |
|  |  | CS Energy | GSTONE4 | Energy | $13500.00 | 0.04 | $540.00 |
|  |  | CS Energy | GSTONE5 | Energy | $13500.00 | 0.04 | $540.00 |
|  |  | CS Energy | GSTONE6 | Energy | $13500.00 | 0.04 | $540.00 |
|  |  | CS Energy | W/HOE#1 | Energy | $13500.00 | 0.15 | $2025.00 |
|  |  | Millmerran | MPP\_2 | Energy | $13500.00 | 0.04 | $540.00 |
|  |  | Stanwell | BARRON-2 | Energy | $13500.00 | 0.01 | $135.00 |
|  |  | Stanwell | KAREEYA1 | Energy | $13500.00 | 0.01 | $135.00 |
|  |  | Stanwell | KAREEYA2 | Energy | $13500.00 | 0.01 | $135.00 |
|  |  | Stanwell | KAREEYA4 | Energy | $13500.00 | 0.01 | $135.00 |
|  |  | Stanwell | STAN-2 | Energy | $13500.00 | 0.06 | $810.00 |
|  |  | Stanwell | STAN-3 | Energy | $13500.00 | 0.07 | $945.00 |
|  |  | Stanwell | STAN-4 | Energy | $13500.00 | 0.08 | $1080.00 |
|  |  | Stanwell | TARONG#1 | Energy | $13500.00 | 0.07 | $945.00 |
|  |  | Stanwell | TARONG#3 | Energy | $13500.00 | 0.07 | $945.00 |
|  |  | Stanwell | TARONG#4 | Energy | $13500.00 | 0.07 | $945.00 |
| **Spot Price** | | **$2351.52/MWh** |  |  |  |  |  |

1. Origin Energy’s Mt Stuart Power Station on 10 December. [↑](#footnote-ref-1)
2. Price setter information is published by AEMO and can be found at [www.aemo.com.au](http://www.aemo.com.au) [↑](#footnote-ref-2)
3. The Terranora interconnector is scheduled to return to service in August 2015. [↑](#footnote-ref-3)