

## Electricity Pricing Event Report – Thursday 12 November 2015

**Market Outcomes:** South Australian spot price reached \$2,291.49/MWh for trading interval (TI) ending 0900 hrs.

South Australian FCAS prices and energy and FCAS prices for the other NEM regions were not affected by this event.

**Detailed Analysis:** 5-Minute dispatch price in South Australia reached \$13,481.81/MWh for dispatch interval (DI) ending 0855 hrs. The high price can be attributed to a tight supply curve during a period of low wind generation and limited interconnector flow into South Australia.

The South Australian demand was 1,468 MW for TI ending 0900 hrs. Wind generation was low at 142 MW for the same TI.

At 0844 hrs, an unplanned outage of the Horsham – Redcliffs 220 kV transmission line occurred due to a circuit breaker trip caused by lightning (Market Notice 50497). The line outage triggered the Murraylink runback scheme to operate, thus reducing flow across the Murraylink interconnector to 0 MW. Following the unplanned outage, AEMO invoked constraint set I-ML\_ZERO to limit the target flow across Murraylink to 0 MW in both directions.

South Australian generation capacity was offered at less than \$591/MWh or above \$10,759/MWh resulting in a steep supply curve. Between DIs ending 0850 hrs and 0855 hrs, GDF Suez and AGL withdrew a total of 52 MW of generation capacity from Dry Creek GT Unit 1 and Torrens Island A Unit 3. Northern PS unit 2 which generally offers capacity up to 273 MW was unavailable. Cheaper priced generation was available but limited due to ramp rates (Hallett PS, Northern PS Unit 1, Torrens Island A unit 4 and Torrens Island B unit 2) or required more than one DI to synchronise (Dry Creek GT units 2 and 3).

Generation offers at \$13,481.81/MWh had to be cleared from Hallett PS to meet the demand for the high priced DI.

The target flow towards South Australia on the Heywood interconnector was at 139 MW, which violated the limit of 108 MW set by the outage constraint equation  $V::S\_SETB\_SETB$ . This constraint equation prevents transient instability across the VIC-SA cutset during the outage of a South East – Tailem Bend 275 kV transmission line. The target flow also violated the  $V^{^}S\_SETB\_SETB$  constraint equation which manages voltage stability across the VIC-SA cutset during the outage of a South East – Tailem Bend 275 kV transmission line.

The 5-minute price reduced to \$36.75/MWh in the subsequent DI to the high priced interval when demand reduced by approximately 142 MW. The demand reduction includes 121 MW of non-scheduled generation coming online during the subsequent DI. 134 MW of generation capacity was rebid from higher price bands to Market Floor Price (-\$1000/MWh) which also contributed to reducing the dispatch price.

Murraylink interconnector was returned to service at 0943 hrs and constraint set I-ML\_ZERO revoked from DI ending 0950 hrs.

The high 30-minute spot price for South Australia was not forecast in the pre-dispatch schedules, as it was a result of an unplanned outage of Murraylink that resulted in limited interconnector flow into South Australia.