

## Electricity Pricing Event Report – Tuesday 22 September 2015

**Market Outcomes:** Spot prices in South Australia, Victoria and Tasmania were between \$2,036.06/MWh and \$2,328.72/MWh for trading interval (TI) ending 1900 hrs.

Frequency Control Ancillary Services (FCAS) prices in the high spot price regions, and energy and FCAS prices for the other NEM regions were not affected by this event.

**Detailed Analysis:** The 5-minute prices in the southern regions were above \$11,655/MWh for dispatch interval (DI) ending 1900 hrs. The high prices occurred during the evening peak demand period when flow from the northern regions were limited.

The demand in Victoria and Tasmania peaked at 6,804 MW and 1,576 MW for TI ending 1900 hrs for the day. In South Australia, the demand was increasing and reached 1,882 MW for TI ending 1900 hrs.

In Victoria, a total of 550 MW from Mortlake GT units 1 and 2 were bid unavailable for DIs ending 1850 hrs and 1900 hrs respectively with the reason "AVOID UNECONOMIC START AVOID SHORT RUN".

In South Australia, for DI ending 1900 hrs, Alinta rebid 33 MW of generation capacity from Northern PS Unit 1 from bands priced at \$46.06/MWh to bands priced at \$13,329.95/MWh. For the same DI, 48 MW from Quarantine PS units 1 and 2 were bid unavailable with the reason "AVOID UNECONOMIC START – AVOID SHORT RUN".

Cheaper priced generation was available but limited due to ramp rates (Murray PS), FCAS profiles (Lemonthyme-Wilmont PS, Catagunya-Liapootah-Wayatimah PS, Reece unit 2, Mackintosh PS and Trevallyn PS, Torrens Island A unit 3) or required more than one DI to synchronise (Quarantine GT unit 4, Bairnsdale GT unit 2, Tamar Valley OCGT units 1, 2 and 3).

A planned outage of the Upper Tumut – Canberra No. 1 330 kV line was scheduled between 0718 hrs on 22 September 2015 and 1600 hrs on 24 September 2015. Outage constraint set N-CNUT\_01 consisting of constraint equation N::V\_CNUT\_2 was invoked from DI ending 0705 hrs to manage this outage. The transient stability constraint equation N::V\_CNUT\_2 manages the stability limit across Snowy to New South Wales for fault on various locations within the Yass – South Morang area. The constraint equation started binding from DI ending 1740 hrs resulting in the accumulation of negative residues across the New South Wales to Victoria directional interconnector. The negative residue constraint equation NRM\_NSW1\_VIC1 was automatically invoked from DIs ending 1835 hrs to 1930 hrs (Market Notices No. 49857 and 49858) to manage the accumulation of negative residues.

For DI ending 1900 hrs, the target flow on the VIC-NSW interconnector was limited to 18 MW towards Victoria by the negative residue management constraint equation NRM\_NSW1\_VIC1, and the outage constraint equation N::V\_CNUT\_2.

The spot prices in all three regions reduced to below \$53/MWh for the subsequent DI with a decrease in demand in all three regions and rebid of approximately 372 MW of generation capacity to the lower priced bands. 96 MW of non-scheduled generation came online in South Australia during the subsequent DI.

The high 30-minute spot price for the southern regions was not forecast in the pre-dispatch schedules, as the target flow for the VIC-NSW interconnector in pre-dispatch was not as limiting as

Dispatch. The pre-dispatch target flow is determined from the initial flow at the start of the TI (at 1830 hrs).