

## Electricity Pricing Event Report – Tuesday 5 April 2016

**Market Outcomes:** Spot price was -\$174.70/MWh in South Australia and -\$163.21/MWh in Victoria for trading interval (TI) ending 1600 hrs.

FCAS prices in all regions and Energy prices for the other NEM regions were not affected by this event.

**Detailed Analysis:** The 5-Minute dispatch price decreased to -\$991.80/MWh in South Australia and -\$928.26/MWh in Victoria for dispatch interval (DI) ending 1540 hrs. These negative prices can be attributed to rebidding of generation capacity in NSW during a planned outage period, which forced excess cheaper priced generation into Victoria and South Australia during a low demand period.

For DI ending 1540 hrs, demand was low in South Australia and Victoria at 1480 MW and 5750 MW, respectively. For the same DI, in Victoria demand decreased by 54 MW.

Planned outage of the Marulan–Yass no.4 330kV line was scheduled between 0703 hrs and 1622 hrs on 5 April 2016. The constraint set N-MNYS\_4\_15M was invoked for this period. During the negative priced DI, the transient stability outage constraint equation N::V\_MNYS\_2 from the constraint set N-MNYS\_4\_15M was binding. This constraint equation manages the stability limit across Snowy to New South Wales for the loss of either Marulan–Yass no. 4 or no. 5 330kV line or Gullen Range–Bannaby no. 61 330kV line, during outage of the parallel Marulan–Yass 330kV line. ,

Between DIs ending 1515 hrs and 1530 hrs (i.e. in the TI prior to the affected TI) Origin and Snowy Hydro rebid 2,140 MW of generation capacity from bands priced at or above \$26.29/MWh to bands priced at the Market Floor Price (MFP) of -\$1000/MWh. The reasons given for these rebids were '1502A CONSTRAINT MANAGEMENT - V>>V\_BTRT\_2A\_R SL' and '15:05 A NSW: +1000 SENS \$13,390.42 HGR THN 30MPD 16:00@14:36', respectively.

Between DIs ending 1535 hrs and 1540 hrs, Origin and Snowy Hydro rebid 490 MW of generation capacity from bands priced at or above \$299.80/MWh to bands priced at the MFP. Some of the capacity that was rebid to lower priced bands were from generating units that were constrained by the constraint equation N::V\_MNYS\_2. In order to maximise the dispatch from the cheap generation units, while preventing this constraint equation from violating, the flow on the VIC-NSW interconnector was increased towards Victoria. Resultantly, the target flow on the VIC-NSW interconnector reversed from 57 MW towards New South Wales for DI ending 1535 hrs to 334 MW towards Victoria for DI ending 1540 hrs.

During the negative priced DI, the target flow on the Murraylink interconnector was limited to 220 MW towards South Australia by the upper transfer limit constraint equation VSML\_220. The target flow on the Heywood interconnector was 224 MW towards South Australia.

With excess cheaper priced generation available in Victoria and South Australia, prices in these regions collapsed to at or below -\$928.26/MWh for DI ending 1540 hrs.

The 5-minute price in South Australia and Victoria increased to -\$45.00/MWh and -\$40.95/MWh, respectively for DI ending 1545 hrs, when 340 MW of generation capacity were rebid, in Victoria, from bands priced at the MFP to bands priced at or above \$0/MWh. Both regions returned to positive prices at DI ending 1555 hrs.

The negative spot price for South Australia was not forecast in the pre-dispatch schedules, as it was a result of short notice rebidding in NSW during a planned outage.