Electricity Pricing Event Report – Tuesday 22 November 2016

Market Outcomes: Spot price was -$184.53/MWh in South Australia (SA) and -$289.19/MWh in Victoria (VIC) for trading interval (TI) ending 1430 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 prices decreased to between -$992.60/MWh and the Market Floor Price (MFP) of -$1,000/MWh in South Australia and Victoria for dispatch intervals (DI) ending 1405 hrs and 1410 hrs. These negative prices can be attributed to rebidding of generation capacity in NSW during a planned outage period and constained VIC-NSW interconnector to manage the outage.

For TI ending 1430 hrs, demand in SA and VIC was 1,446 MW and 5,784 MW, respectively.

Planned maintenance of the Upper Tumut - Canberra No.1 330 kV line was scheduled between 0701 hrs and 1511 hrs on 22 November 2016. Outage constraint set N-CNUT_01 was invoked to manage the outage of the transmission line.

For DI ending 1355 hrs, Origin rebid 640 MW of NSW generation capacity from band priced at the Market Price Cap (MPC) of $14,000/MWh to band priced at the MFP. For DI ending 1405 hrs, Snowy Hydro rebid 2,169 MW of generation capacity from bands priced at or above $0/MWh to band priced at the MFP.

The increased dispatch from these generators caused the N::V_CNUT_2 constraint equation within the N-CNUT_01 constraint set to bind during the negative priced DIs. The constraint equation N::V_CNUT_2 prevents transient instability for faults on various locations between the Yass – South Morang area during outage of the Upper Tumut - Canberra No.1 330 kV line. Between DIs ending 1400 hrs and 1405 hrs, the binding constraint equation limited the target flow on the VIC-NSW interconnector with flow decreasing by 851 MW from 1,211 MW to 360 MW towards NSW. For DI ending 1410 hrs, the target flow reversed direction towards VIC and was limited to 387 MW by the constraint equation.

For DIs ending 1405 hrs and 1410 hrs , the target flow on the Heywood interconnector towards SA was limited to 250 MW and 234 MW, respectively, by the dynamic upper transfer limit constraint equation VS_250_DYN.

The target flow on the Murraylink interconnector increased by 80 MW towards SA to reach 100 MW between DIs ending 1400 hrs and 1405 hrs. For DI ending 1410 hrs, the target flow on Murraylink increased to 164 MW. The flow was limited during both negative priced DIs by the constraint equation equation VSML_ROC_80. This constraint equation limits the rate of change of flow towards SA across the Murraylink interconnector to 80 MW per 5 minutes.

For DI ending 1405 hrs, the target flow on the Basslink interconnector towards VIC was limited to 8 MW by the FCAS constraint equation F_T++NIL_MG_R5. This constraint equation manages the Delayed Raise requirement for the loss of the largest Tasmania (TAS) generation event. For DI ending 1410 hrs, the target flow reversed direction on the Basslink interconnector towards TAS and was limited to 125 MW by the constraint equation V_T_NIL_BL1. This constraint equation manages the limts from VIC to TAS when Bassink enters the no-go zone.

With excess lower priced generation available in SA and VIC, prices in these regions decreased to or below -$992.60/MWh for DIs endings 1405 hrs and 1410 hrs.

For DI ending 1415 hrs, the 5-minute dispatch price in South Australia and Victoria increased to $21.85/MWh and $14.38/MWh, respectively, when target flow on the Basslink interconnector increased by 128 MW to 253 MW towards TAS.

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