

Electricity Pricing Event Report – Wednesday 27 September 2017

Market Outcomes: The spot price in South Australia (SA) reached -\$101.31/MWh and -\$149.99/MWh for Trading Intervals (TIs) ending 1300 hrs and 1400 hrs, respectively. Spot prices for other TIs between TI ending 1300 hrs and TI ending 1500 hrs were also negative between \$0/MWh and -\$100/MWh.

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

Detailed Analysis: The 5-minute dispatch energy prices ranged from -\$151.7/MWh to -\$3.1/MWh for all DIs between 1235 hrs until 1500 hrs. These low prices can be attributed to excess supply of lower priced generation in SA, coupled with relatively low demand and constrained interconnectors reaching their import limits towards VIC.

Between DIs ending 1230 hrs and 1235 hrs, demand in SA decreased by 20 MW to 885 MW and total wind generation increased by 4 MW to 1174 MW. During the same period, the combined target flow across the Heywood and Murraylink interconnectors reduced by 17 MW to 633 MW towards VIC.

Heywood was limited by the dynamic upper transfer limit constraint equation

S:V_500_HY_TEST_DYN. This constraint equation limits the dynamic headroom for the upper transfer limit on the SA to VIC Heywood interconnector to 500 MW. Once the 500 MW flow limit is exceeded by more than 10 MW, the limit is temporarily reduced by the amount of exceedance capped at 25 MW. Murraylink was limited by the dynamic upper transfer limit constraint equation S:VS_650_HY_TEST_DYN. This constraint equation limits the dynamic headroom for the combined upper transfer limit on the SA to VIC Heywood and Murraylink interconnector to 650 MW. Once the 650 MW flow limit is exceeded by more than 10 MW, the limit is temporarily reduced by the amount of exceedance capped at 25 MW.

With excess cheaper priced generation available for SA during the relatively low demand period, the SA price decreased to -\$149.99/MWh for DI ending 1235 hrs.

The spot price oscillated in the negatively priced range until DI ending 1330 hrs. This was due to the fluctuating Heywood flow towards VIC limited by constraint equations S:V_500_HY_TEST_DYN, S:V_500_HY_TEST, S:VS_650_HY_TEST and V>>V_NIL_2_TIE; and fluctuating Murraylink flow towards VIC limited by constraint equations S:VS_650_HY_TEST_DYN, S:VS_650_HY_TEST and S>NIL_NIL_NWMH2. The negative prices between DI ending 1235 hrs and 1500 hrs also occurred during a period of excess lower priced generation, low demand (ranging between 857 MW and 1,017 MW) and high wind generation (ranging between 1174 MW and 1280 MW).

For DI ending 1335 hrs, Origin shifted 88 MW of capacity from bands priced at the Market Price Cap (MPC) of \$14,200/MWh to the Market Floor Price (MFP) of -\$1,000/MWh with bid reason: *"1240P PLANT CONDITIONS - DELAYING TESTING 30 MINS SL"*. This resulted in Quarantine Power Station Units 1 to 4 to become online causing sustained low prices until DI ending 1420 hrs. At this time, Origin rebid the 88 MW of capacity from MFP back to MPC with bid reason: *"1411P PLANT TESTING - TEST COMPLETE SL"*.

The spot price in SA increased to \$29.2/MWh for DI ending 1505 hrs when demand in SA region increased by 8 MW and wind generation in SA decreased by 13 MW.

The negative spot price was not forecast in the latest pre-dispatch schedule as dispatch demand was lower than Pre-dispatch forecast demand.