

Electricity Pricing Event Report – Friday 27 January 2017

Market Outcomes: Spot price in Queensland (QLD) reached \$2,353.04/MWh for trading interval (TI) ending 1100 hrs on 27 January 2017.

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

Detailed Analysis: The 5-Minute dispatch Energy price in Queensland reached the Market Price Cap (MPC) of \$14,000/MWh at dispatch interval (DI) ending 1035 hrs. This high price can mainly be attributed to an increase in demand while interconnector support was constrained.

Between DIs ending 1030 hrs and 1035 hrs, demand in QLD increased by 75 MW.

Outages of two Directlink cables in the Terranora Interconnector were scheduled during the high priced DI. Directlink DC1 had an unplanned outage between 0325 hrs on 17 January 2017 and 1249 hrs on 15 February 2017. Directlink DC3 had a planned outage scheduled between 0700 hrs on 23 January 2017 and 1354 hrs on 08 February 2017. The outage constraint set N-X_MBTE_2 was invoked for the duration of two Directlink outages.

For DI ending 1035 hrs, the target flow on the QNI interconnector towards QLD was limited to 190 MW by the system normal constraint equation N^Q_NIL_B1. This constraint equation avoids the voltage collapse on the loss of Kogan Creek PS.

For DI ending 1035 hrs, the target flow on the Terranora interconnector toward QLD was limited to 10 MW by the outage constraint equation N_X_MBTE2_A. This constraint equation manages flow on the Terranora interconnector towards QLD during the outage of two Directlink cables.

For DI ending 1035 hrs, Darling Downs GT made 5 MW of generation capacity unavailable with the reason of "0551A CONSTRAINT MANAGEMENT - N^Q_NIL_B1 SL". Lower priced generation was available but required more than one DI to synchronise (Braemar GT unit 2), limited by ramp rates (Gladstone PS unit 6 and Oakey PS unit 1) or constrained off by the system normal constraint equation Q>NIL_BI_FB (Gladstone PS unit 3, 4 and 5). The Q>NIL_BI_FB constraint equation avoids overloading the Boyne Island feeder bushing on Calliope River – Boyne Island 132 kV lines, for the loss of a single Calliope River – Boyne Island 132 kV line.

The 5-minute price reduced to \$72.25/MWh for DI ending 1040 hrs, when demand in the region reduced by 264 MW.

The high 30-minute spot price for Queensland was not forecast in the pre-dispatch schedules due to pre-dispatch demand forecast lower than dispatch demand forecast.