

Electricity Pricing Event Report – Tuesday 12 July 2016 TAS*

Market Outcomes: Spot price in Tasmania reached \$1,695.07/MWh and \$602.95/MWh for trading intervals (TIs) ending 0900 hrs and 2100 hrs, respectively.

Energy and FCAS prices in other NEM regions were not affected by this event. FCAS prices in Tasmania were elevated but did not reach the price threshold for reporting purposes.

Detailed Analysis: The 5-Minute dispatch price in Tasmania reached \$9,238.95/MWh and \$2,488.93/MWh for dispatch intervals (DIs) ending 0850 hrs and 2040 hrs, respectively. These high prices can be mainly attributed to reclassification of transmission lines in Tasmania due to lightning in the vicinity, which increased the local FCAS requirement.

- In response to lightning storms in the area, the loss of both the Farrell – Sheffield No. 1 and No. 2 220 kV Lines was declared a credible contingency between 0845 hrs and 1025 hrs (Market Notices no. 54416 and 54431) and between 2035 hrs and 2210 hrs (Market Notices no. 54461 and 54464).
- The simultaneous loss of both lines would have resulted in the loss of some west coast generators (Bastyan, John Butters and Reece 2).
- Reclassification constraint sets F-T-FASH_N-2, T-FASH_N-2_HM_C and T-NIL_WCP_CLOSE were invoked during this period to manage the potential simultaneous loss of the transmission lines. This involved reducing the energy dispatched from West Coast generators (Bastyan, John Butters, Reece 1, Reece 2, Mackintosh and Tribute) in the Energy market and reducing the enablement of Bastyan, John Butters and Reece 2 in the FCAS markets.
- The reclassification constraint sets reduced lower priced generation from Mackintosh and Reece 2 in the Energy markets, and more expensive generation (Gordon PS) had to be dispatched instead.
- Due to insufficient availability of Raise FCAS services, a number of Raise FCAS constraint equations within the reclassification constraint sets violated for DIs ending 0850 hrs and 2040 hrs.
- For the high priced DIs, additional lower priced generation was available but required more than one DI to synchronise (Bell Bay Three PS units 1 and 3 and Tamar Valley OCGT unit 4), or were limited by ramp rates (Poatina PS units 1 to 6 and Tribute PS).

The 5-minute price in Tasmania reduced to \$407.17/MWh or below for the DIs following the high priced DIs, when:

- For DI ending 0855 hrs, up to 146 MW of additional generation capacity was made available by Hydro Tas (Gordon) in each of the Raise FCAS markets with the reason '0846A CONSTRAINT IN TRANSMISSION DIFFERENT FROM EXPECTED'. Increased availability of Raise FCAS services from generators in other parts of Tasmania reduced the enablement of West Coast generators in the Energy and FCAS markets.
- For DI ending 2045 hrs, Tasmania demand reduced by 87 MW.

The high energy prices were not forecast in Pre-dispatch schedules as it was a result of reclassification of transmission lines within the affected TI.

** A summary was prepared as the maximum daily spot price was between \$500/MWh and \$2,000/MWh.*