

Electricity Pricing Event Report – Sunday 26 March 2017

Market Outcomes: The Mainland Raise Regulation Frequency Control Ancillary Service (FCAS) price reached \$472.66/MWh for trading interval (TI) ending 1600 hrs on 26 March 2017.

Spot prices in all regions were not materially affected by this event. FCAS prices in Tasmania (TAS) were not affected by this event.

Detailed Analysis: The 5-minute Mainland Raise Regulation FCAS prices were between \$300/MWh and \$1,245.49/MWh for all five dispatch intervals (DIs) between DIs ending 1540 hrs and 1600 hrs. These high prices can be attributed to an increase in the Mainland Raise Regulation requirement due to an increasing time error.

The accumulated time error in the Mainland fell below -1.5 sec for all of the high priced DIs, reaching a low of -3.66 sec. To manage the time error, the amount of Raise Regulation FCAS enabled in the Mainland was elevated above the base requirement of 130 MW for the high price DIs. Mainland Raise Regulation FCAS requirements reached a maximum of 247 MW for DI ending 1545 hrs. The increased Mainland Raise Regulation FCAS requirement was managed by constraint equation F_MAIN+NIL_DYN_RREG. This constraint equation increases the Mainland Raise Regulation Requirement by 60 MW for each 1 sec of time error below -1.5 sec. The additional Raise Regulation had to be sourced from more expensive generating units.

Additional lower priced Raise Regulation FCAS capacity was available but was limited by its FCAS trapezium (Bayswater unit 1 & 2, Tumut 3, Upper Tumut and Yallourn unit 2 & 4).

The Mainland Raise Regulation FCAS price reduced to \$112.73/MWh for DI ending 1605 hrs when the Raise Regulation requirement reduced by 26 MW.

The high Raise FCAS prices on the Mainland were not forecast in pre-dispatch schedules as the increased time error occurred within the TIs and the constraint equation F_MAIN+NIL_DYN_RREG that manages the Mainland Raise Regulation FCAS requirement was not modelled in pre-dispatch.