

## Electricity Pricing Event Report – Thursday 1 December 2016

**Market Outcomes:** Tasmania had high Raise Frequency Control Ancillary Service (FCAS) prices, ranging between \$11,667.02/MWh and \$11,670.00/MWh for trading interval (TI) ending 0330 hrs on 1 December 2016.

FCAS prices in the Mainland and Energy prices in the NEM were not affected by this event.

**Detailed Analysis:** The 5-minute Raise FCAS prices in Tasmania reached the Market Price Cap (MPC) of \$14,000/MWh for all dispatch intervals (DIs) between DI ending 0305 hrs and 0325 hrs. These high FCAS prices can be mainly attributed to the withdrawal of Raise FCAS capacity within Tasmania during a period when Raise Contingency Services had to be sourced within Tasmania due to a reclassification.

At DI ending 0305 hrs, 89 MW of Fast Raise (Gordon, John Butters & Cethana), 463 MW of Slow Raise (Gordon, John Butters, Cethana, Mackintosh, Poatina units 1-2, Fisher & Liapootah, Catagunya and Wayatinah), 589 MW of Delayed Raise (Gordon, John Butters, Cethana, Mackintosh, Poatina units 1-2, Fisher & Liapootah, Catagunya and Wayatinah) and 479 MW of Regulation Raise FCAS capacity (Gordon, John Butters, Cethana, Poatina units 1-2, Lemonthyme and Wilmot, Fisher & Liapootah, Catagunya and Wayatinah) from Tasmanian generators was withdrawn from the NEM with the reason “0149P MACHINE TARGET DIFFERENT TO EXPECTATION” or “0206P CONSTRAINT IN TRANSMISSION DIFFERENT FROM EXPECTED”.

The reclassification of the loss of any transmission line in Tasmania and Basslink interconnector when Basslink is importing towards Tasmania, required for Raise Contingency services to be source locally within Tasmania. The target flows on the Basslink interconnector towards Tasmania during the high price period were between 389 MW and 439 MW.

The reduced availability of Raise FCAS within Tasmania and requirement to source Raise Contingency services locally, resulted in the F\_T+NIL\_MG\_R6 and F\_T+NIL\_MG\_R5 constraint equations to violate between DIs ending 0305 hrs and 0325 hrs and constraint equation F\_T+NIL\_MG\_R60 to violate between DIs ending 0305 hrs and 0320 hrs. These FCAS constraint equations manage Fast Raise, Slow Raise and Delayed Raise FCAS requirements for the Tasmania region while Basslink flow is importing towards Tasmania. The violation of these constraint equations indicated insufficient availability of Raise FCAS services within Tasmania to meet the FCAS requirements.

A number of units providing lower priced Raise FCAS capacity in Tasmania were limited by their FCAS profile (Tungatinah, Liapootah, Catagunya and Wayatinah).

The 5-minute prices reduced to \$20/MWh or less for all Raise FCAS services at DI ending 0330 hrs when 156 MW to 848 MW of Raise FCAS capacity was made available again at bands priced at \$5/MWh or less with the reason “0318P MACHINE TARGET DIFFERENT TO EXPECTATION”.

The high 30-minute Tasmanian FCAS prices were forecast in the 0230 hrs pre-dispatch schedule on 1 December 2016.