

Electricity Pricing Event Report – Saturday 26 March 2016

Market Outcomes: South Australian Lower Regulation Frequency Control Ancillary Service (FCAS) reached \$6,903.66/MWh and \$9,140.88/MWh for trading intervals (TIs) ending 0230 hrs and 0300 hrs. The South Australian Raise Regulation FCAS reached \$6,901.19/MWh and \$8,967.36/MWh for the same TIs.

Energy prices in all regions and FCAS prices in other NEM regions were not affected.

Detailed Analysis: The South Australian Lower Regulation FCAS prices were at or above \$13,435.22/MWh for 7 Dispatch Intervals (DIs) between DIs ending 0220 hrs and 0250. For the same DIs, South Australian Raise Regulation FCAS prices were at or above \$12,399.79/MWh. The high FCAS price can be attributed to steep supply curves of Lower and Raise Regulation FCAS capacity and local FCAS requirement in South Australia during a short notice outage.

A short notice outage of South Morang No. 1 500kV Bus 1 Circuit breaker, which required an outage of the South Morang No.1 500kV Bus and South Morang – Sydenham No.1 500 kV line, occurred between 0225 hrs and 0252 hrs on 26 March 2016. This outage increased the risk of synchronous separation between South Australia and Victoria. The risk of separation created local Regulation FCAS requirements for South Australia which had to be sourced from within the region. In preparation for the short-notice outage, AEMO invoked the constraint set F-V-MLSY to manage the local Regulation FCAS requirements, effective from DI ending 0220 hrs. The outage constraint sets V-MLSY_R, V-SMSY, V-SMSTS_BYPASS_HW_SY and V-SY_CB were also invoked to prepare for the outage, effective from DI ending 0230 hrs (Market Notice no. 52563)

Between DI ending 0220 hrs and 0245 hrs, the two South Australian FCAS regulation providers only offered 12 MW of Lower and Raise Regulation FCAS below \$12,000/MWh, increasing to 32 MW from DI 0250 hrs. This resulted in Lower and Raise Regulation FCAS prices ranging from \$12,399.79/MWh to \$13,799.99/MWh between DIs ending 0220 hrs and 0250 hrs to meet the increased local requirement of 35 MW.

The target flow on the Heywood interconnector was limited to 195 MW towards South Australia by the local contingency FCAS requirement constraint equations F_QNV+MLSY_L6, F_QNV+MLSY_L5 and F_QNV+MLSY_L60 and the ramping constraints #V-SA_RAMP_E_F, #R013767_018_RAMP_V, and V_S_ROCOF.

For DI ending 0255 hrs the South Australian Lower and Raise Regulation FCAS prices reduced to \$5.10/MWh and \$2.40/MWh, respectively, when the South Morang – Sydenham No. 1 500kV line returned to service and the local Regulation FCAS requirement constraints were revoked.

The high 30-minute FCAS price for South Australian was forecast in the pre-dispatch schedules.