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(Lodged electronically)

16 March 2020

**AEMO Draft Determination on revisions to the Market Ancillary Services Specification (MASS) for inclusion of PFR**

Dear Matthew,

Delta Electricity operates the Vales Point Power Station situated at the southern end of Lake Macquarie in NSW. The power station consists of two 660MW conventional coal-fired steam turbo-generators. Delta Electricity appreciates this consultation and the opportunity to comment on AEMOs draft determination.

Delta supports the intentions that can be drawn from the draft determination. However, some of the intended outcomes did not appear to be clearly stated in the present draft. The following comments are offered on the draft determination:

- Some additional definitions are advisable to avoid misinterpretations. One is suggested below:
  - Time of the contingency event – the time in the present draft revision is arbitrary and if not defined or tied to a market notice will vary in interpretation between participants as to when a contingency event occurred. Unit trips are generally not reported by AEMO as market notices unless a non-conformance occurs due to delays in market rebids by participants. Market rebid information becomes available after the event but is not always decipherable as being representative of a contingency event nor does it have a precise event time.
- The conclusions<sup>1</sup> for the methodology did not indicate which of the charts would be the resultant method. It is possible that the diagram of figure 5 reflects AEMOs intention but it is recommended the final determination clarify the point.
  - If the figure 5 is representative of the intended outcome of the determination, the wording of 3.7.1(a)(i), 4.7.1(a)(i) and 5.7.1(a)(i) would need revising to reflect the assessment is to commence from the time of the contingency event (which needs a new definition; see above)
- The MASS was condensed in 2017 with the formation of the FCAS Verification Tool User guide. It is recommended that this guide be updated to provide guidance in how the calculations should be made so that no interpretative differences occur between the FCAS verification tool and the intentions of the MASS revisions included with the final determination.
  - The assignment of the facility reference point for Fast Contingency FCAS to be the average output of a facility between 8 and 20 seconds prior to a frequency disturbance time<sup>1</sup> is not found in wording of the draft revised MASS. The clause 3.7.1(a)(v) may

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<sup>1</sup> [AEMOs draft-determination-MASS-PFR-consultation pg7 point 1.](#)



- require revision or, if not, further clarification expected to be found in the FCAS Verification Tool User guide.
- Delta Electricity believes the outcome may be clearer if the comment is included that facility reference points for the verification method for fast, slow and delayed responses will now be aligned to the 8-20second period prior to the frequency disturbance time.
  - It is also recommended that AEMO points out the link to definitions for this time as the words “prior to a frequency disturbance” can be interpreted as either being referenced to the event commencement time, the time when the frequency first leaves the PFR deadband, or the defined frequency disturbance time, the time when the frequency leaves the normal operating frequency band (NOFB).

The figure 1 of the draft determination remains different to the Delta Electricity interpretation of the revised MASS. The AEMO diagram suggests the 6s of FAST raise service ends 6s after the time of the contingency event. As suggested above, a better definition for the Time of the Contingency Event is recommended. The altered figure below demonstrates Delta’s understanding of the wording depicting the 6s FAST FCAS response assessment continues from the frequency disturbance time, i.e. time the frequency leaves the NOFB, to 6s after this time. Hence, in the example event, the 6s second FAST assessment finishes 7.1 seconds after the Time of the Contingency Event.

Figure 1 Fast FCAS  $\Delta P$  with narrow deadband response (under frequency event)

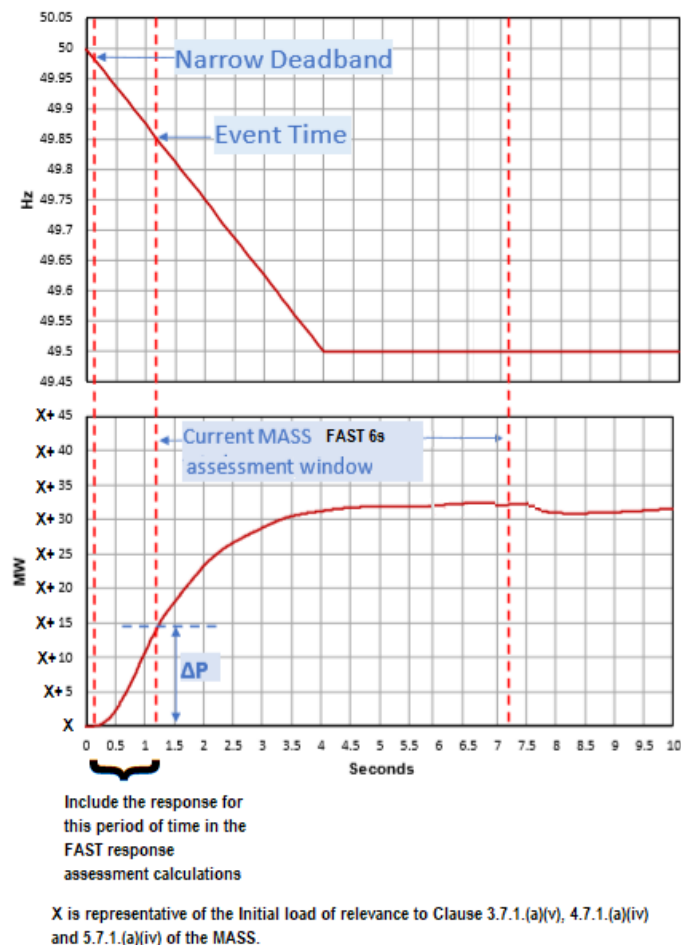


Figure 1 - AEMOs Figure 1 MODIFIED BY DELTA to show a full 6s FAST Assessment



Delta Electricity remains eager to understand AEMOs viewpoints and to be understood regarding these amendments to the MASS and if AEMO wishes to discuss this submission please contact Simon Bolt on (02) 4352 6315 or [simon.bolt@de.com.au](mailto:simon.bolt@de.com.au).

Yours sincerely

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