

FORECASTING AND PLANNING REFERENCE GROUP (FPRG).

Subject:	NEM Medium Term Projected Assessment of System Adequacy (MT PASA) redevelopment project
Agenda Item:	6
Paper #:	Paper 1
Contact:	Suzette Lizamore (AEMO)
Date:	Tuesday 18 April 2017

1. EXECUTIVE SUMMARY

Item raised by:	AEMO
Rule requirement:	The MT PASA redevelopment project is not a rule requirement, however MT PASA itself is linked to National Electricity Rule 3.7.2.
Link to National Objectives:	The MT PASA redevelopment project was initiated in the interests of continuous improvement and in order to ensure the process is robust enough in light of the rate of change in the industry. It is expected to deliver a process that is aligned to MT PASA objectives and the NEO.
Previous forum discussion(s):	Not previously discussed at the FPRG.
Item impact:	There is a risk that the current reliability assessment in MT PASA may lead to stakeholders, or the AEMO, adversely reacting to, or intervening in the market based on incorrect information. Intervention may carry financial implications for affected stakeholders and market participants.
Impacted parties:	Industry, Generators, Traders, Transmission Service Providers, Distribution Service Providers and Regulators.
Purpose:	This item is on the agenda to inform all stakeholders of the progress of the MT PASA redevelopment project and the Reliability Standard Implementation Guidelines (RSIG) consultation process.
Desired outcome:	Note items of concern or interest to stakeholders; answer queries concerning the overall project.
Link to documents:	http://www.aemo.com.au/Stakeholder-Consultation/Consultations/Reliability-Standard-Implementation-Guidelines-Consultation

2. BACKGROUND

MT PASA is one of the main tools AEMO uses to assess expected electricity supply-demand and reliability issues in the next two years. MT PASA related data is used by stakeholders for network and generator outage planning, insider trading risk mitigation, fuel mitigation etc.

In 2016, AEMO began a review of MT PASA as part of continuous improvement and to ensure the process used to assess the *reliability standard* was robust in light of the accelerated rate of industry change. External consultants, Ernst & Young (EY), were engaged to assess whether current MT PASA processes were fit for purpose and to provide a suite of recommendations to remediate gaps.

EY recommended that AEMO should implement the MT PASA reliability assessment using a probabilistic modelling approach to better capture the impact of stochastic inputs such as demand, generation outages or availability of intermittent generation. EY also recommended that the three-hourly supply-demand run should continue, and that additional information would improve the service.

The recommended solution was subsequently independently assessed by GHD and discussed with stakeholders at a workshop held in December 2016. AEMO has now commenced the implementation phase of the MT PASA redevelopment.

3. DISCUSSION

AEMO has begun the implementation process to replace the current MT PASA with a probabilistic approach that can better capture the intermittent generation impacts on supply adequacy, amongst other improvements.

A probabilistic MT PASA modelling approach would:

- Provide stakeholders with more accurate information about the projected reliability of the National Electricity Market (NEM) in the medium term.
- Provide more consistency of information between AEMO's MT PASA, Energy Adequacy Assessment Projections (EAAP) and Electricity Statement of Opportunities (ESOO) reports.
- Improve interpretation of the potential consequences of any Low Reserve Conditions (LRC) reported.

The improvements to MT PASA methodology necessitate changes to the Reliability Standard Implementation Guidelines (RSIG) which cover the MT PASA process. A Rules consultation process covering these changes commenced on 30 March 2017.

AEMO is seeking informed debate and feedback by industry on:

- Aspects of the probabilistic MT PASA modelling approach and types of outputs that will be most useful in providing the information required to implement the *reliability standard* over a two-year time frame.
- Whether additional information from participants in relation to annual energy constraints would improve reliability assessment.
- Potential factors that may be considered for conducting additional ad hoc MT PASA assessments.
- Whether reporting MT PASA bids by Dispatchable Unit Identifier (DUID) would better promote the national electricity objectives.

AEMO will make additional information available through the three-hourly supply-demand run as part of the MT PASA redevelopment.

4. RISKS / FINANCIALS

Risk	Likelihood	Residual rating	Mitigation Strategies
If no updates are made to the MT PASA process, market/AEMO intervention based on current MT PASA information carries financial implications for affected market participants.	Possible	Significant	AEMO currently uses EAAP and ESOO analysis to check the reliability standard outlook prior to intervention.

5. TIMING AND NEXT STEPS

Reliability Standard Implementation Guideline Consultation - Process commenced 30 March 2017 with Notice of First Stage of Consultation and Issues Paper. Submissions are due 10 May 2017.

Update to the Reliability Assessment Process – The change to a probabilistic modelling system received board approval in March. We are entering the implementation phase with completion expected November 2017. Progress updates will be provided to this forum on a regular basis.