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From: WA Reform Power System Operations <WARPSO@aemo.com.au>
Sent: Thursday, 30 May 2019 3:52 PM
Subject: Update for PSOWG Members

Dear PSOWG members,

It has been a while since our last workshop, and while we are yet to schedule the next workshop we would like to give you a brief update on the work that the team has been doing which will form part of the next agenda.

Ancillary Services
We have been working to finalise the investigation conducted by GHD on necessary changes to the Ancillary Services framework (which we are now referring to as Essential System Services), including developing new models for analysing the mechanisms of frequency regulation and the overlap between AGC control action and droop. We have also scoped some additional follow up analysis as recommended by GHD to deliver items such as estimating load relief and setting appropriate operating margins.

Power System Security and Reliability (PSSR)
We have been working closely with Western Power on developing appropriate frameworks for the implementation of new generator performance standards that allow for better sharing of new connection data, performance and compliance monitoring regimes and cost recovery mechanisms. Other challenges with the existing framework which the Energy Transformation Implementation Unit (ETIU) team is seeking to address include the need to: introduce formal involvement of the System Manager in the negotiation of generators connecting to the SWIS; reduce duplication and address gaps within the framework; improve compliance options for large generators; and clarify roles and responsibilities, particularly with respect to the network service provider and System Management.

We plan to bring a high-level, revised regulatory framework for PSSR standards to the next PSOWG meeting for feedback.

Technical Rules Change Management
Western Power's Technical Rules comprises the standards, procedures and planning criteria governing the construction and operation the SWIS. Chapter 12 of the *Electricity Networks Access Code 2004* provide the heads of power for Western Power's Technical Rules, including the change management processes. Currently, in a practical sense, Western Power is the only party that can submit a change to the Economic Regulation Authority for approval. Stakeholders have expressed concern that they cannot submit a change request to the Technical Rules, with their involvement being limited to participating in consultation on rule changes proposed by Western Power. The ETIU team is reviewing the current change management process for Western Power's Technical Rules with the aim of expanding the range of parties that can propose rule changes.

An update on this work will be provided to PSOWG at the next workshop, and it is anticipated that a position may be ready for discussion at this time.

Operational Planning
Forecasting is inherent in a number of operational and market processes, and therefore it is important to have a common and clear understanding of the various forecast quantities used. To this end the team have been investigating the various forecast definitions that exist or may be required to support new and enhanced processes. In addition to this we have been investigating the mechanisms involved in the pre-dispatch process, potentials for sensitivity runs, sources of potential error and the options and information available to participants.

Constraint Equations Governance Framework
To enable the operation of a security-constrained market model in the WEM, a set of constraint equations are to be developed to reflect thermal and non-thermal limits. Constraint equations are essential to enable

security-constrained economic dispatch (SCED). Constraint equations will also be used to inform allocation of capacity credits to generation facilities.

The WEM Rules do not currently cater for the development and application of constraint equations in the dispatch process. The adoption of a security-constrained dispatch and market model and new capacity credit allocation process requires the introduction of a framework in the WEM Rules to govern the development, management and use of constraint equations and associated processes and information. Work is underway on developing recommendations for the constraint equations governance framework by exploring the following issues:

- Entity roles in the development of limit advice and constraint equations;
- Monitoring and audit of constraint equations;
- Publication of constraints related information; and
- Appeal process for disputes

A presentation is anticipated to be brought to the next PSWOG meeting.

Reference Node/Marginal Loss Factors

The development of constraints requires the choice of an appropriate reference node to ensure effective dispatch. The team have been investigating the implications of moving the reference node from Muja to Southern Terminal on marginal loss factors, and what transitional arrangements may be required as well as reviewing the methodologies employed to calculate marginal loss factors.

In the coming weeks we will be circulating a proposed agenda and date for the next workshop, likely to be around the end of June. We hope the above summary is useful and helps to inform you on some of the likely topics for that workshop.

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