

28 September 2012

The Reliability Panel
Australian Energy Market Commission
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By online submission

Dear Mr Henderson

Energy Adequacy Assessment Projection (EAAP) Review

AEMO has been publishing quarterly EAAP since its first publication in March 2010 and welcomes the opportunity to provide comments on the Issues Paper published by the Reliability Panel for the purpose of reviewing EAAP.

AEMO believes the EAAP has become a valuable process for assessing energy adequacy in the National Electricity Market (NEM) complementing the processes for assessing capacity adequacy.

The EAAP has evolved into more than an analysis of the risk of drought upon energy availability in the NEM. It is AEMO's most frequent routine forecast of expected unserved energy derived through probabilistic simulation. Such an approach is directly consistent with the form of the NEM's reliability standard.

Following its introduction, EAAP has been incorporated to the following processes:

- To assist with the determination of the existence of reserve shortfalls before making decisions on procurement of reserve contracts under Reliability and Emergency Reserve Trader provisions¹
- Primary tool for assessing power system reliability as a part of assessing eligibility for Anticipatory Certification under the Clean Energy Act 2011²
- Annual Power System Adequacy report published by AEMO

There are other opportunities to deliver more value to the NEM, by enhancing the EAAP system as required, to determine energy adequacy under additional scenarios such as:

- Carbon pricing/clean energy policy related scenarios such as the retirement of generation with higher levels of pollution
- Impacts of the entry of significant levels of renewable technologies into the NEM

¹ Reliability and Emergency Reserve Trader Guidelines are available on the AEMC website at: <http://www.aemc.gov.au/Media/docs/Final%20Report%20-%20Amended%20RERT%20Guidelines-f9c94e7b-4817-47c3-92a4-fa8879c7fae5-0.PDF>

² AEMO's information paper on application for anticipatory certification under the Clean Energy Act 2011 is available on its website at: http://www.aemo.com.au/en/Electricity/~/_media/Files/Other/anticipatory_certification/0900-0006%20pdf.ashx

- Incorporating the energy limitations arising from the failures of gas supply infrastructure

With the EAAP now a mature reliability assessment tool operating beside the Medium Term Projected Assessment of System Adequacy (MT PASA), it is evident that AEMO now has two tools operating to assess supply reliability in a similar timeframe. The probabilistic approach used in the EAAP is arguably the more direct and holistic approach to making assessments against the Reliability Standard. AEMO therefore intends to assess the options available to rationalise the various approaches by placing more emphasis on the probabilistic method in the two-year timeframe.

The information in the Attachment is provided to assist the review based on AEMO's experience so far in determining and using the outputs of EAAP.

If you would like to discuss any of the matters covered in this submission, please contact Sujeewa Rajapakse on 02 8884 5316 or email sujeewa.rajapakse@aemo.com.au.

Yours sincerely

Steve Cronin
Group Manager, Systems Capability

Attachments:

AEMO response to the specific questions in the issues paper on EAAP

Attachment: AEMO response to the specific questions in the issues paper on EAAP

Purpose of EAAP

(a) Does the EAAP, as it is currently configured, meet the purpose as set out under the NER?

AEMO believes the current EAAP meets the purpose set out in NER however EAAP can be expanded to provide more useful information.

(b) AEMO is not offering a comment.

(c) AEMO is not offering a comment.

(d) Will the purpose or potential benefits of the EAAP change in the future?

The EAAP is already used for other purposes than originally intended. AEMO believes that EAAP has the potential to deliver further benefits by introducing suitable improvements enabling it to include scenarios that suit future requirements of the NEM.

EAAP Principles

(a) Are the EAAP principles still relevant?

AEMO believes the EAAP principles are still relevant.

(b) Are there any of the EAAP principles that should be changed? Which principles and for what reasons?

EAAP principles are flexible. AEMO can include appropriate additional scenarios in EAAP by amending EAAP Guidelines in consultation with the participants.

(c) For example: should the publication of the EAAP remain on a quarterly cycle? Is a 24 month outlook appropriate? Are the factors that AEMO need to take into account in preparing the EAAP sufficient or are there new sources of information or data that should be used?

The quarterly publication of EAAP is adequate, providing AEMO the flexibility of updating EAAP when more up-to-date information is available to AEMO.

Depending on the scenarios considered, publication of EAAP on a less regular basis may be appropriate however the following factors should be given consideration in making this decision:

- Rapid changes of operational issues that may take seasonal patterns
- If EAAP is published on a less regular basis, the study period in each EAAP update will extend by a period longer than a quarter. This means that there will be a period longer than a quarter where energy adequacy assessment is not available until the next EAAP update.
- EAAP system is relatively complex and maintaining skill levels of staff to efficiently develop EAAP would be difficult if EAAP is produced, say once in every 24 months.
- Submission of GELF data requires sufficient level of understanding of the energy limitations encountered by the scheduled generators, familiarity of the preparation of GELF inputs and the interface used for submitting inputs. AEMO envisages that participants will find it difficult to maintain skill levels to submit GELF inputs when required if the EAAP is produced, for example, every 24 months.

Hence AEMO believes that the quarterly publication of EAAP is suitable giving updates of the incremental changes of energy adequacy in NEM on a quarterly basis. NER allows AEMO to publish EAAP between quarters if new information becomes available. However time taken to gather inputs and to run EAAP simulations makes the EAAP publication in between quarters difficult.

The set of GELF inputs specified in EAAP Guidelines is sufficient for the scenarios covered in the current EAAP.

(d) Clause 3.7C(b)(6)(B) refers to matters considered by AEMO in undertaking the Annual National Transmission Statement (ANTS) review. However, given that the ANTS review provisions have been replaced by the National Transmission Network Development Plan (NTNDP), should the ANTS reference under this clause be replaced with 'NTNDP' or should it refer to other sources of information or reviews?

AEMO supports inclusion of updated and more appropriate reference in place of ANTS review.

Question 3 Administration of the EAAP

(a) What have been the experiences of AEMO and scheduled generators in administering the EAAP?

AEMO believes that an efficient system is available to exchange inputs and outputs of EAAP with the participants. AEMO has commenced a project to further improve the EAAP system which also includes improvements to the interface used by scheduled generators to submit GELF inputs.

(b) Are the provisions under the NER sufficiently detailed on how the EAAP should be administered?

AEMO believes the provisions in NER to administer EAAP are sufficient.

(c) AEMO is not offering a comment.

Question 4 Generator Energy Limitation Framework

(a) AEMO is not offering a comment.

(b) AEMO is not offering a comment.

Question 5 EAAP guidelines

(a) Are the factors that AEMO must include in its guidelines clear and sufficient?

The factors AEMO must include in the EAAP Guidelines is clear and sufficient.

(b) Are there any other areas that AEMO's guidelines could include? For what reasons?

AEMO is not proposing any other areas to be included in EAAP Guidelines.

Question 6 Provision of information to scheduled generators

(a) AEMO is not offering a comment.

(b) AEMO is not offering a comment.

Question 7 Panel review

(a) At this stage, are there any reasons for the Panel to review the EAAP provisions again in the future?

AEMO believes the dynamic nature of the energy industry will require review of EAAP provisions from time to time.