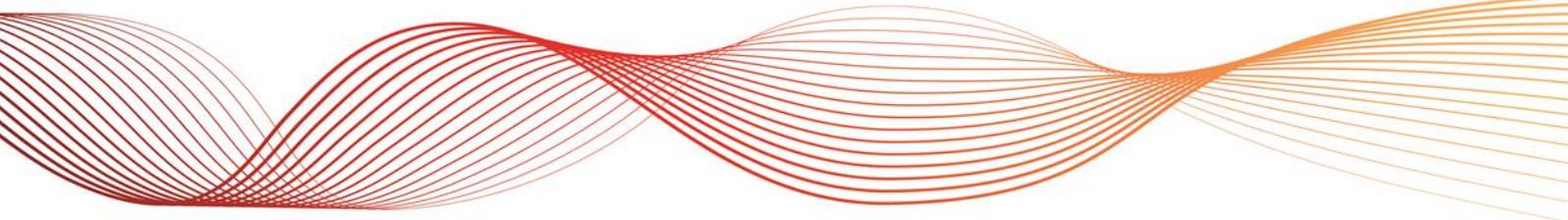




RESPONSE TO EAAP ISSUES PAPER

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IMPORTANT NOTICE

Purpose

AEMO published an issues paper in July 2015 consulting the market on proposed changes to the reporting frequency requirement on the energy adequacy assessment projection (EAAP) report published under rule 3.7C of the National Electricity Rules.

AEMO has prepared this document to provide information about the feedback received. It also outlines the next steps AEMO will take in response to that feedback.

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1. SUMMARY

AEMO considers that it may be appropriate to reduce the frequency of the energy adequacy assessment projection (EAAP) from quarterly to annual reporting to strike a balance between the cost of producing the EAAP and the value provided by its publication. AEMO understands there is value in a centralised assessment of energy constraints that could impact energy availability, however, a quarterly EAAP assessment, in the absence of a water shortage or other trigger event, is most likely achieved at a net cost to consumers.

The need for an EAAP was identified in the 2007–08 eastern and south eastern Australian drought. At that time there was a concern about the impact of water shortages on energy availability of fossil fuel-fired stations that need large volumes of cooling water to generate electricity. The market sought, through the EAAP, to retain and codify the assessments and publications previously provided by NEMMCO's¹ Drought Scenario Investigation Reports (DSIRs).

Since 2008 when the drought ended, about 7 gigawatts (GW) of new generation capacity has been added in the NEM. This new investment has been in technologies such as wind, rooftop photovoltaics (PV) or gas-fired generation which are not reliant on water. Additionally, desalination plants have been installed in Victoria and New South Wales, reducing the likelihood that fossil fuel-fired generators will have output restricted due to limitations on access to cooling water in future. The overall effect is that the market is now less vulnerable to drought situations to maintain reliability.

The EAAP contains an assessment of the impact of energy constraints on energy availability that may be caused by water shortages or other necessary inputs, such as fuel. AEMO considers there is value in providing the market with a centralised assessment of energy availability in the NEM, when such energy constraints exist. Indeed, the Bureau of Meteorology is advising that the NEM could again be entering a severe El Nino period similar to 1997 and Hydro Tasmania's water storage levels are currently very low, at 28% of dam capacity. There is also concern around the potential for supply shortfalls in South Australia within the next two years, following the announced retirement of Northern Power Station. EAAP reporting under such conditions is appropriate, even if only to allay concerns around potential reliability issues.

However, in the absence of drought conditions, and when energy generation inputs are not otherwise constrained, the existing quarterly EAAP reporting requirements may not be necessary to meet the objectives of clause 3.7C of the National Electricity Rules (the NER).

The administrative costs associated with quarterly reporting extend to collation of data, analysis and subsequent review of the analysis by AEMO. This cost is borne in addition to the costs incurred by scheduled generators in preparing the Generation Energy Limitation Framework (GELF) parameters.

Since May 2015, AEMO has been consulting with market participants and government jurisdictions on proposed changes to the frequency of the EAAP report. This included publication of an Issues Paper in July 2015, inviting stakeholders to provide written submissions on AEMO's proposal, considering both the value and administrative cost of quarterly EAAP reporting.

Having considered the submissions made on the Issues Paper, and the discussions held through broader consultation, AEMO recommends reducing the frequency of EAAP reporting from quarterly to annual. If conditions emerge that could materially impact energy availability in the NEM, AEMO recommends that additional EAAP reporting is triggered at that time. Annual EAAP reporting will allow AEMO and scheduled participants to maintain capability to produce the necessary information needed for EAAP, and send out an annual signal to confirm that there are no reliability issues due to drought or other energy constraints.

This document provides a summary of the EAAP, the main issues raised in submissions and AEMO's response.

¹ NEMMCO ceased operation on 1 July 2009. Its roles and responsibilities then transitioned to AEMO.



2. OVERVIEW OF EAAP

2.1 Inception of EAAP

The EAAP rule was introduced in June 2008 and the first EAAP report published in 2009. The EAAP was derived through a comprehensive reliability review undertaken by the Australian Energy Market Commission (AEMC) in 2007. The AEMC panel considered the effectiveness of the arrangements that were in place at the time to manage generation input constraints. The panel recommended that information on energy constraints available to market participants could be improved and that this could be achieved in the form of the EAAP. It served to formalise and extend the DSIRs developed in 2006 and first published in 2007.

DSIRs were a centralised analysis of the drought that was impacting a number of NEM generators. The 2007-08 drought impacted the output of hydro generators and thermal plant that required access to cooling water.

The basis for the current EAAP was set out in the AEMC. Reliability Panel rule change proposal: NEM Reliability Settings: Information, Safety Net and Directions.² The panel considered that there were five reasons why the EAAP would promote the National Electricity Objective (NEO):

1. Promote efficient use of electricity services by improving the information provided to Market Participants and stakeholders on the impact of energy constraints on generation. The panel anticipated that this information would lead to market responses which would improve use of constrained generation inputs.
2. Improve supply reliability to consumers and the national electricity system.
3. Reduce prices paid by electricity consumers relative to what they would otherwise have been. The Panel anticipated that average end-use consumer prices would reduce through the smoothing of high prices in projected energy shortfall periods.
4. Increased efficiency of investment in generating systems through the more efficient use of existing generation, which will further improve reliability and reduce consumer prices.
5. Provide benefits for energy traders in the NEM, as improved projections of energy limitations will improve their ability to determine efficient contracting levels.

2.2 National Electricity Rules requirements

Following on from the AEMC's final rule determination³, the current rule 3.7C of the NER was introduced.

Under rule 3.7C(b), AEMO is required to prepare and publish an EAAP every three months.

The purpose of EAAP is to make available to Market Participants and other interested persons, an analysis that quantifies the impact of 'energy constraints' on energy availability over a 24 month period under a range of scenarios. Energy constraints are defined as limitations on the ability of generating units to generate active power due to restrictions in the availability of fuel or other expendable resources.

AEMO is also required to develop and publish the EAAP guidelines⁴ in accordance with rule 3.7C(k) of the NER. The current EAAP guidelines set out rainfall scenarios as the subject of the assessment. The

² Australian Energy Market Commission Reliability Panel, NEM Reliability Settings: Information, Safety Net and Directions Rule Change Proposal, February 2008.

³ Australian Energy Market Commission, Final Rule Determination: National Electricity Amendment (NEM Reliability Settings: Safety Net and Directions) Rule 2008, 26 June 2008

⁴ EAAP Guidelines - <http://www.aemo.com.au/AEMO%20Home/Electricity/Resources/Reports%20and%20Documents/EAAP>



low rainfall scenario uses the inflows into the dams during the 2006-07 financial year to simulate a drought scenario.

Based on these scenarios, the EAAP provides a probabilistic assessment of energy availability and unserved energy (USE) at a monthly resolution for each NEM region.

3. STAKEHOLDER CONSULTATION PROCESS

In July 2015, AEMO consulted the market through a publication titled “Issues Paper – Energy Adequacy Assessment Projection” (the Issues Paper) to discuss issues associated with preparing, publishing and using the EAAP, with a view to preparing a final report on the potential for changing the NER to reflect current requirements.

The Issues Paper sought to consult on proposed changes to the frequency of the EAAP report. AEMO proposed:

- An annual EAAP report – the Rules and EAAP Guidelines be accordingly amended.
- Trigger events for additional EAAP reporting be specified in the EAAP Guidelines (following consultation).
- AEMO to issue a Generator Energy Limitation Framework (GELF) to Scheduled Generators annually, and when a trigger event occurs.

Eight submissions were made to the Issues Paper, one of which was confidential. The seven non-confidential submissions will be published on AEMO’s website.

Two key issues were explored in submissions:

- The relevance of the quarterly EAAP publication.
- The need to set limits or triggers for additional reporting, if there was a move away from quarterly reporting.

One submission also discussed the value of amending the Generator Energy Limitation Framework if EAAP is continued.

AEMO appreciates this valuable contribution from stakeholders.

3.1 Regular reporting frequency

Of the submissions received, most supported a move to annual reporting and three preferred that the EAAP report be discontinued altogether.

In support of moving towards an annual publication, Origin Energy highlighted that EAAP could supplement participants’ existing access to information on generator availability published through the Medium Term Projected Assessment of System Adequacy (MTPASA). GDF Suez and EnergyAustralia also supported annual reporting.

Of the submissions that recommended discontinuing the EAAP reports:

- CS Energy said that “Subject to any further information arising from this consultation by AEMO, CS Energy would consider it best to discontinue the EAAP”, although if this was not going to be the case then CS Energy recommended that the frequency of reporting should be reduced to annual. CS Energy indicated that the relevant information could be found in MTPASA, which also publishes energy limitations. It also suggested that the commercial envelope (managing commercial risk) that participants are willing to accept “appears smaller than the reliability envelope”, which means that private decisions responding to energy limitations will have already been made before the EAAP highlights them.
- Snowy Hydro came to a similar conclusion, stating that other information to assess energy availability already exists. It also highlighted that the EAAP only provides market information while actual reliability relies on “commercial decisions to schedule generation plant” and there is “no justification for the continuation of a “centralised assessment” of the impact of energy constraints through the EAAP process”. Snowy Hydro also described efforts to produce the EAAP as “economic deadweight losses”.

- Hydro Tasmania pointed out in its submission that it has a “significant share of the NEM’s hydropower resources” but finds that “the EAAP does not provide the market with useful information [and] is an unnecessary reporting obligation for generators”.

3.2 Conclusion about reporting frequency

No submission favoured keeping the current quarterly reporting frequency and as such AEMO intends to submit a rule change proposal to the Australian Energy Market Commission (AEMC) to reduce the EAAP reporting frequency.

Having considered all submissions, AEMO recommends that annual EAAP reporting is the best option for AEMO and participants to maintain capability in both submitting EAAP data and undertaking EAAP analysis. AEMO also considers there is value to some stakeholders in knowing there are no reported reliability issues due to energy limitations.

3.3 Triggers for additional reporting

AEMO suggested four triggers in the Issues Paper:

- referencing Tasmania water storage;
- Low Reserve Conditions in MTPASA;
- AEMO discretion based on an event; and
- When a Market Participant informs AEMO of an event or circumstances that it considers may result in a material energy constraint.

There was broad support for inclusion of triggers for additional EAAP publications if the reporting obligation was annual.

Hydro Tasmania and Origin Energy suggested that more than one trigger should be in place before an extra EAAP report would be required.

There was also a view expressed in several submissions that extra reporting, inclusive of event based, should be at AEMO’s discretion. CS Energy specified emerging issues⁵ as the basis for triggers instead of the criteria⁶ suggested in the Issues Paper. EnergyAustralia and GDF Suez also suggested that AEMO’s discretion is necessary to strike the right balance.

Snowy Hydro does not consider triggers necessary as it does not want EAAP reporting to continue at all. However if triggers are to be developed, Snowy Hydro suggested they need to be more stringent than suggested in the Issues Paper.

3.4 Conclusion about triggers for additional reporting

In the event the EAAP reporting was changed from quarterly to annual there was majority support for inclusion of triggers for additional EAAP reporting based on events that could lead to energy limitations. These events must balance the cost of producing the reports with the benefits they provide. There was also support for including events other than drought, but no specific triggers were identified.

AEMO will suggest that event-based triggers be included as part of EAAP Guidelines. Under rule 3.7C(o) of the NER, the Guidelines must be amended in accordance with Rules consultation procedures. AEMO will consult on potential trigger events in line with that process should the proposed rule change proceed. As part of that consultation, AEMO intends to hold a workshop on possible triggers with interested parties.

⁵ Emerging issues could be any natural disaster of significant scale which badly damages significant infrastructure.

⁶ Criteria suggested were: Tasmanian water storage falls to 20% of capacity or remains below that level; A Low Reserve Condition in MTPASA.; AEMO discretion - an event, or an emerging event, that AEMO considers may impact reliability through energy limitations, including material USE events identified in Annual EAAP reports or A Market Participant informs AEMO of an event or circumstances that it considers may result in a material energy constraint.



AEMO also notes that the Bureau of Meteorology is advising that the NEM could be entering a severe El Nino period similar to 1997. Pending any rule change, AEMO will continue to publish quarterly EAAP publications and will monitor the potential impact of this advice on reliability. Even if a rule change is approved, the current weather conditions may trigger additional EAAP reporting in the near term.

3.5 An alternate proposal

CS Energy considers that energy constraints are not well defined in the NER. In CS Energy's view, this presents difficulties for participants as the same energy constraint data is often submitted for both EAAP and MTPASA.

CS Energy suggested removing EAAP and GELF provisions, retaining the reference to energy constraints in MTPASA and adding a clause similar to 4.9.9 obligating participants to "report events or developments that are likely to change the energy production from the generator, stating the time period that this covers (maybe over two years)".

In considering CS Energy's alternative, AEMO finds that the definition of energy constraints is appropriately flexible in the rules; and it considers that no change to the definition is required. There could, however, be merit in referencing clause 4.9.9 as a trigger in the EAAP Guidelines to the extent that changes in operational availability may impact on monthly energy constraints over a 24 month period. As noted above, AEMO would be interested in exploring this further at the proposed workshop.



4. CONCLUSION AND NEXT STEPS

Having considered the submissions made on the Issues Paper, AEMO will submit a rule change proposal to the AEMC to:

- (1) Reduce the reporting frequency of the EAAP report from quarterly to annual.
- (2) Amend the rules relating to the EAAP guidelines to require them to include triggers for additional reporting.

In the event the rule change proposal proceeds AEMO will conduct a workshop on the formulation of triggers.



5. GLOSSARY

This document uses a number of terms that have meanings defined in the NER. Those terms have the same meanings in this document. The listed acronyms have the meanings outlined in the table below. The 2015 NEFR meanings are adopted unless otherwise specified.

TERM OR ACRONYM	MEANING
AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
DSIR	Drought Scenario Investigation Report
EAAP	Energy Adequacy Assessment Projection
ESOO	Electricity Statement Of Opportunities
GELF	Generator Energy Limitation Framework
GW	GigaWatt
MTPASA	Medium Term Projection of System Adequacy
NEFR	National Electricity Forecasting Report
NEM	National Electricity Market
NEO	National Electricity Objective (section 7 of the National Electricity Law in the schedule to the National Electricity (South Australia) Act 1996).
NER	National Electricity Rules
STPASA	Short Term Projection of System Adequacy
USE	Unserviced Energy