

24 November 2015

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Australian Energy Market Commission  
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*John,*  
Dear Mr Pierce,

### **Rule Change Request – Energy Adequacy Assessment Projection**

The Australian Energy Market Operator (AEMO) requests that the Australian Energy Market Commission (AEMC) consider making a rule change under Part 7, Division 3 of the National Electricity Law.

The proposed rule change of the National Electricity Rules would ensure that the publication of the Energy Adequacy Assessment Projection (EAAP) is altered from a quarterly publication to an annual requirement and that additional reporting, if required, can be captured through trigger events specified within the EAAP guidelines.

The EAAP was first implemented in 2007 as a response to the prolonged drought that drove concerns of energy availability issues in the National Electricity Market (NEM).

Since the end of the drought in 2007-08, the NEM has become less vulnerable to drought situations to maintain reliability. Additional capacity has been added that is not reliant on water for generation, and desalination plant have been built in Victoria and New South Wales, reducing the likelihood that fossil fuel-fired generators will have output restricted in future due to limitations on access to cooling water in future.

AEMO therefore considers that the need for, and value of, quarterly EAAP reporting has now diminished. 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.

In May 2015, AEMO proposed a change in the frequency of EAAP reporting at its NEM Wholesale Consultative Forum that was well received by stakeholders. AEMO subsequently published an Issues Paper in July 2015 to draw further comment. The majority of responses received either supported the abolition of the EAAP altogether, or a decrease in the frequency of reporting.

AEMO acknowledges the following emerging conditions and recognises the unfortunate timing of the proposed EAAP rule change in light of these events:

- The Bureau of Meteorology is advising that the NEM could be entering a severe El Nino period similar to 1997, and Hydro Tasmania's storage levels are low (28% of dam capacity).
- Stakeholders are increasingly concerned about reliability of supply in South Australia within the next two years, following the closure of Northern Power Station.

The aim of the proposed rule change is not to reduce reporting at times of heightened concern. Rather, it allows EAAP to be produced when there is value, and reduces costs when there is not.

It is envisaged that conditions similar to those currently being experienced in the NEM would trigger additional EAAP reporting in future, informing stakeholders of any impact on energy availability and reliability of supply

AEMO believes this proposal will promote the national electricity objective through reducing the administrative burden on participants in preparing the data for the report whilst maintaining the value of the centralised assessment when appropriate.

For further details, please do not hesitate to contact Nicola Falcon, Group Manager - Planning on (03) 9609 8933 or [Nicola.Falcon@aemo.com.au](mailto:Nicola.Falcon@aemo.com.au).

Yours sincerely

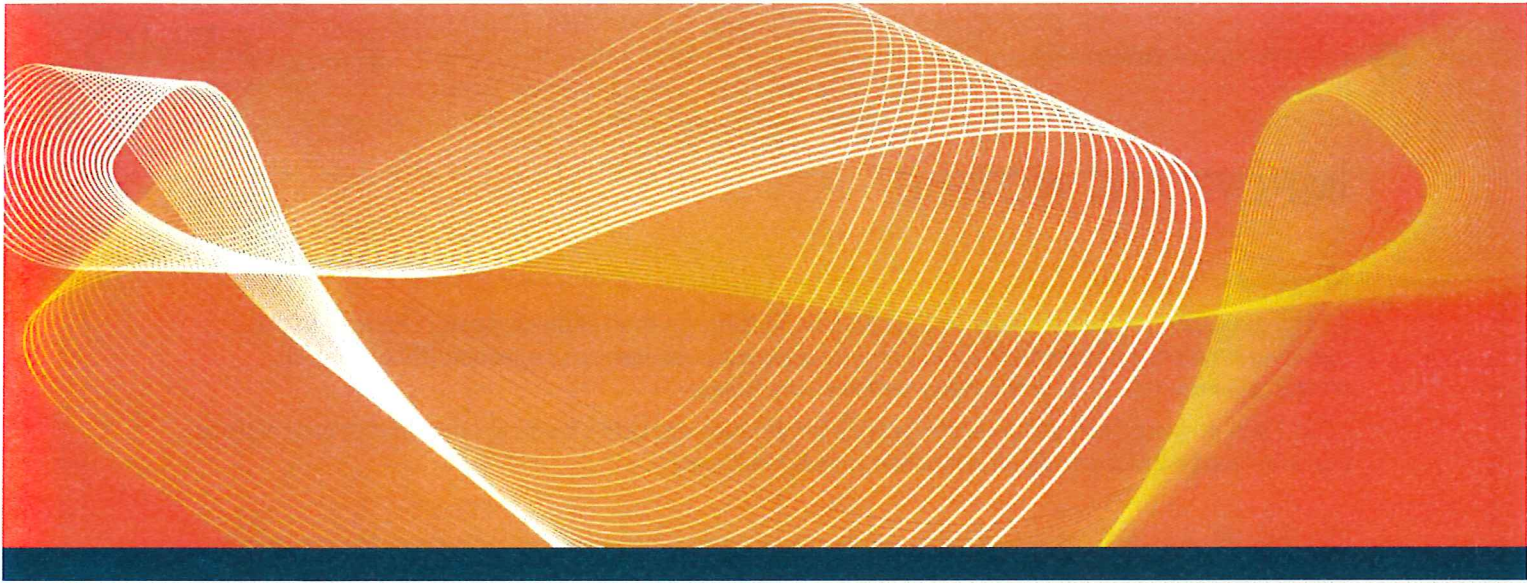


**Matt Zema**  
**Managing Director and Chief Executive Officer**

**Attachments:**

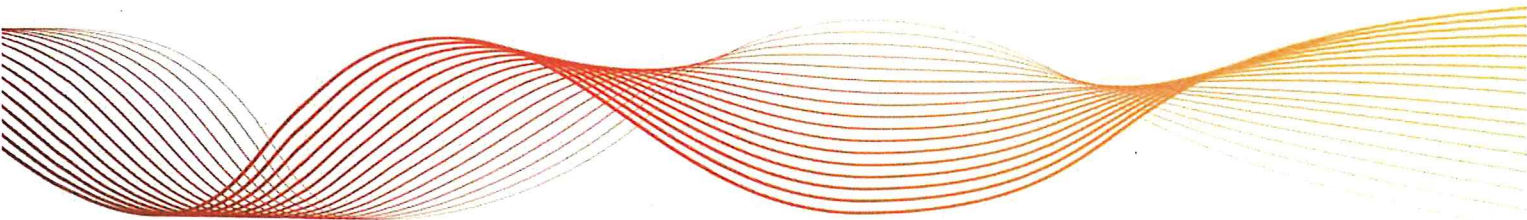
1. Response to EAAP Issues Paper - 23 November 2015.
2. EAAP Rule Change Proposal.





# RESPONSE TO EAAP ISSUES PAPER

Published: **November 2015**





## 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's<sup>1</sup> 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.

<sup>1</sup> 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.<sup>2</sup> 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 determination<sup>3</sup>, 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 guidelines<sup>4</sup> 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

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

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

<sup>4</sup> 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 issues<sup>5</sup> as the basis for triggers instead of the criteria<sup>6</sup> 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.

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

<sup>6</sup> 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	Unserved Energy





# Electricity Rule Change Proposal

## 1 Summary

AEMO requests that the Australian Energy Market Commission (AEMC) consider AEMO's proposal to reduce the frequency of publication of the energy adequacy assessment projection (EAAP).

AEMO proposes that rule 3.7C of the National Electricity Rules (NER) be amended to ensure:

- the publication of the EAAP is altered from a quarterly requirement to an annual requirement; and
- triggers for additional reporting can be contemplated in the EAAP guidelines.

AEMO believes this proposal will promote the national electricity objective through reducing the administrative burden on participants in preparing the data for the report. This rule change proposal seeks a better balance between the cost of producing the EAAP and the value achieved from its publication.

By including triggers for additional EAAP reporting, AEMO is still able to provide the market with a timely assessment of energy constraints that could impact energy availability, should conditions emerge that warrant such an assessment. For example, current conditions, whereby the Bureau of Meteorology is advising that the NEM could be entering a severe El Nino period similar to 1997 and water storage levels are low, may trigger additional EAAP reporting in future.

## 2 Relevant Background

### 2.1 Current Framework

The EAAP framework was introduced in June 2008 and the first EAAP was published in 2009.

In 2007, there was growing concern that the drought in south-eastern Australia was having an increasing impact on energy availability in the National Electricity Market. AEMO's predecessor, NEMMCO, studied the impact of the drought and, on 25 May 2007, published a report entitled "Potential Drought Impact on Electricity Supplies in the NEM". In June 2007, the Ministerial Council on Energy requested Reliability Panel (Panel) to provide advice on the effectiveness of the market arrangements at that time to manage generation input constraints.

The Panel advised that the risks of generation energy constraints, particularly the risks associated with drought were material and a timely response was needed. The Panel proposed the EAAP rule change to address not just water availability, but other constraints.

Rule 3.7C (s) required the Panel to review the operation of the rule by no later than the third year after publication of the first EAAP. The Panel's review (in March 2013) found that EAAP had been operating well and recommended there be no changes to the quarterly reporting arrangements under the Rules. In coming to this conclusion, the Panel considered both the risks of untimely

identification of constraints and loss of expertise if EAAP is not published regularly, and the increased AEMO resourcing requirements and implementation costs associated with regular reporting.

## 2.2 Issue

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 restrictions. Since 2008, 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. Since the drought ended in 2007-08, the EAAP has reported no material issues. AEMO therefore considers that the need for, and value of, quarterly reporting has now diminished.

AEMO published an Issues Paper on 13 July 2015 to consult with a broad range of stakeholders on these concerns. The majority of stakeholders that responded either advocated the abolition of the EAAP altogether, or a decrease in the frequency of reporting. For further details on the feedback see section 3.3.

The administrative costs associated with quarterly reporting extend to the collation of the 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.

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.

## 2.3 Current Environment

As at November 2015, AEMO acknowledges the following emerging conditions could impact the proposed EAAP rule change:

- The Bureau of Meteorology is advising that the NEM could be entering a severe El Nino period similar to 1997, and Hydro Tasmania's storage levels are low (28% of dam capacity).
- Stakeholders are increasingly concerned about reliability of supply in South Australia within the next two years, following the closure of Northern Power Station.

AEMO recognises the unfortunate timing of the proposed EAAP rule change in light of these events. The aim is not to reduce reporting at times of heightened concern. Rather, the proposed rule change allows EAAP to be produced when there is value, and reduces costs when there is not.



It is envisaged that conditions similar to those currently being experienced in the NEM would trigger additional EAAP reporting in future, informing stakeholders of any impact on energy availability and reliability of supply.

### **3 How the Proposal will address the issues**

#### **3.1 How the proposal will address the issues**

AEMO proposes to reduce the frequency of EAAP reporting to an annual requirement with additional triggers for reporting to be included in the EAAP guidelines. By reducing the minimum reporting frequency, this proposal addresses many of the issues raised by stakeholders during AEMO's 2015 consultation process, while the triggers provide AEMO with the flexibility to publish additional reports at its discretion if market conditions require.

Annual EAAP reporting will allow AEMO and participants to maintain the 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 relevant energy constraints.

AEMO considers that the inclusion of triggers for additional EAAP reporting is an important element of this proposal, allowing for timely assessment of emerging conditions that may materially impact energy availability, as and when appropriate. By providing scope for additional reporting, this proposal addresses the concerns around timeliness raised by the Panel in its 2013 review.

Feedback from stakeholders indicate that EAAP was not used for decision-making and as such the change is unlikely to have an effect on participant behaviour.

#### **3.2 AEMO Procedure changes**

The introduction of a trigger based mechanism will require an amendment to the EAAP guidelines. The amendment would focus on EAAP trigger events for additional reporting. It will support flexibility on:

- the scenarios to be assessed;
- the appropriate period of the assessment; and
- the frequency of publication.

AEMO is required to amend the EAAP guidelines in accordance with the Rules consultation procedure and in the event this proposed rule change proceeds would use that process to define appropriate parameters.

#### **3.3 Stakeholder Engagement**

AEMO proposed an investigation into changing the EAAP at the NEM Wholesale Consultative Forum in May 2015, where there was broad support for reducing the frequency of reporting. There was discussion whether the frequency should be annual or if the EAAP should only be produced when there was cause for concern.

AEMO commenced a consultation process with the publication of an Issues Paper on 13 July 2015 seeking comments by 20 August 2015. The consultation was centred on issues associated with preparation, publication and use of the EAAP, with a view to preparing a final report on the potential for changes to the NER to reflect current requirements. It was aimed at market participants that provide information in both the EAAP and GELF process and end-users of the publication. AEMO also talked to a broad range of stakeholders one on one to get an understanding of the perceived value of EAAP.

There were eight responses received to the Issues Paper, one of which was confidential. Submissions generally agreed on reducing the frequency of the EAAP. Views diverged, however, on the frequency of reporting.

Three broad views were expressed:

- 1) Produce EAAP annually with triggers for extra reporting
- 2) Only produce EAAP if triggers have been met
- 3) Discontinue EAAP entirely

The majority, however, supported an annual publication. Respondents wanted a balance between the cost of producing the EAAP and the value it provides.

In the Issues Paper published in July 2015, AEMO suggested the following triggers for additional EAAP reporting:

1. Tasmanian water storage falls to 20% of capacity or remains below that level.
2. A Low Reserve Condition (LRC) in MTPASA.
3. 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.
4. A Market Participant informs AEMO of an event or circumstances that it considers may result in a material energy constraint.

AEMO notes that the Bureau of Meteorology is advising that the NEM could be entering a severe El Nino period similar to 1997, and Tasmanian water storage is at 28% of capacity. Additionally, LRC points in South Australia are currently reported in MTPASA. Under the above proposed triggers, it is likely that additional EAAP reporting would be triggered in the current environment.

Responses to the Issues Paper in relation to the suggested trigger events can be summarised into three views:

- 1) AEMO to have a discretion to trigger additional reporting.
- 2) At least two identified triggers should be active before additional reporting is required.
- 3) Triggers need to be more stringent than those suggested by AEMO.

AEMO acknowledges that there were mixed views around how prescriptive/flexible these triggers should be. The benefit of including the triggers in the EAAP Guidelines, is that they can then be



amended or supplemented (through the Rules consultation procedures) to reflect changes in the environment and technology over time.

Summaries of the written submissions, and AEMO's responses, have been published in "Response to EAAP Issues Paper" on the AEMO website. The submissions are also attached as an Appendix to this document.

## **4 Proposed Rule**

### **4.1 Description of the Proposed Rule**

The proposed rule would amend rule 3.7C of the NER to change the reporting requirement to an annual requirement.

AEMO's suggested changes are outlined in Appendix A.

## **5 How the Proposed Rule Contributes to the National Electricity Objective (NEO)**

Before the AEMC can make a rule change it must apply the rule making test set out in the National Electricity Law (NEL), which requires it to assess whether the proposed rule is or is likely to contribute to the National Electricity Objective (NEO). Section 7 of the NEL states that the NEO is:

..to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to –

- (a) price, quality, reliability and security of supply of electricity; and
- (b) the reliability, safety and security of the of the national electricity system.

AEMO considers the proposed rule promotes efficient operation of electricity services by substantially reducing the administrative burden and costs of reporting on both participants and AEMO.

Currently the ongoing quarterly costs of EAAP include:

- Costs to generators - these include costs associated with undertaking modelling, analysis and training and preparing data inputs to provide to AEMO.
- Costs to AEMO - these include costs associated with preparing data inputs, carrying out the reporting functions and reviewing reports prior to publication.

AEMO estimates there is only a small cost associated with implementing the change, as only a slight variation to the existing rule is required. There will be no need for participants or AEMO to modify established systems to adopt the change from quarterly to annual EAAP reporting.



## Appendix A: Draft Rule

This draft is based on version 74 of the National Electricity Rules.

### 3.7C Energy Adequacy Assessment Projection

#### Purpose of EAAP

- (a) The purpose of the *energy adequacy assessment projection* (or *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.

#### EAAP principles

- (b) The *EAAP* must:
- (1) cover a 24 month period, ~~commencing on the day the *EAAP* is published under this rule 3.7C;~~
  - (2) be ~~published every three months~~ annually;
  - (3) provide a probabilistic assessment of projected *energy* availability for each *region*;
  - (4) provide projected *unserved energy* levels for each *region* with a monthly resolution;
  - (5) provide aggregated information on the adequacy of *energy* availability for each scenario that *AEMO* defines for the purposes of the *EAAP*, based on information received from *Registered Participants* and on anticipated *power system* constraints;
  - (6) take into account:
    - (A) where relevant, the information and *medium term PASA* inputs referred to in clauses 3.7.1 and 3.7.2;
    - (B) where relevant, the matters *AEMO* considers in, and for the purposes of, preparing the *NTNDP*;
    - (C) *Generator Energy Limitation Frameworks* provided in accordance with paragraph (g), including *GELFs* that apply to more than one *scheduled generating unit* under clause 3.7C(k)(6) where those *GELFs* adequately represent the relevant *generating units*; and
    - (D) *GELF parameters* for each *GELF* which are provided in accordance with the *EAAP guidelines* and are updated in accordance with the *timetable*.
- (c) *AEMO* must comply with the *EAAP principles* in preparing the *EAAP*.

#### Administration of EAAP

- (d) *AEMO* must ~~publish the *EAAP* every three months~~ annually in accordance with the *timetable* and the first *EAAP* must be published by 31 August 2016.
- (e) For the purposes of preparing the *EAAP*, a *Scheduled Generator* must provide *AEMO* with the following information in accordance with the *timetable*:
- (1) updated *GELF parameters* for each *GELF* provided by it in accordance with paragraph (g); and
  - (2) other information that supplements the data provided under subparagraph (1) that is reasonably required by *AEMO* to study the scenarios defined in the *EAAP guidelines*.
- (f) In considering whether information referred to in subparagraph (e)(2) is reasonably required, *AEMO* must have regard to the likely costs that may be incurred by the *Scheduled Generator* in preparing and providing that information compared to the likely benefits from the use of that information for the purposes of the *EAAP*.

## Generator Energy Limitation Framework

- (g) A *Scheduled Generator* must prepare and submit to AEMO, in accordance with the *EAAP guidelines* and for the purposes of the *EAAP*, a description of the *energy constraints* that affect the ability of each of its *scheduled generating units* to generate electricity (*GELF* or *Generator Energy Limitation Framework*). The *GELF* must be in a form that adequately represents that *generating unit* sufficient for AEMO to include the *GELF* in the *EAAP*.
- (h) A *GELF* submitted under paragraph (g) must be supplemented by *GELF parameters* for that *GELF* as defined in the *EAAP guidelines*, and those parameters must be updated annually ~~every three months~~ in accordance with the *timetable*.
- (i) Where a *Scheduled Generator* has submitted a *GELF* under paragraph (g) and there has been a material *change* to any of its *scheduled generating units* which has an impact on the *energy constraints* associated with that *GELF*, the *Scheduled Generator* must revise and re-submit the *GELF* in accordance with that paragraph.
- (j) Subject to paragraph (r), a *GELF* or information provided in relation to a *GELF* to AEMO must be treated by AEMO as *confidential information*.

## EAAP guidelines

- (k) AEMO must develop and *publish* guidelines (the *EAAP guidelines*) that:
  - (1) define scenarios that AEMO must study in preparing the *EAAP*;
  - (2) define modelling assumptions for the *EAAP*;
  - (2A) define trigger events for additional EAAP;
  - (3) define the components of a *GELF* that a *Scheduled Generator* must include in a *GELF* submitted under paragraph (g);
  - (4) provide detail on the forms of the *GELF* sufficient for a *Scheduled Generator* to meet the requirements of paragraph (g);
  - (5) define variable parameters specific to a *GELF* (*GELF parameters*) that are likely to have a material impact on the *GELF* and therefore the *EAAP*, and which may include, but are not limited to, parameters in relation to:
    - (i) hydro storage including pump storage;
    - (ii) thermal generation fuel;
    - (iii) cooling water availability; and
    - (iv) gas supply limitations;
  - (6) define circumstances where a *GELF* submitted under paragraph (g) can apply to a collection of *scheduled generating units* that face common *energy constraints* due to their geographic location, access to fuel source or another similar reason;
  - (7) define the form of information to be submitted by each *Scheduled Generator* in accordance with paragraph (e); ~~and~~
  - (8) define arrangements for managing the confidentiality of information submitted to AEMO under this rule 3.7C; and
  - (9) define when additional EAAP must be published and additional GELF must be submitted.
- (l) The scenarios that are defined for the purposes of subparagraph (k)(1) may include, but are not limited to:
  - (1) water conditions such as normal rainfall and drought;
  - (2) material restrictions on the supply of a significant fuel source;
  - (3) other limits on a fuel source for a major form of generation; and

- (4) any other scenario that *AEMO* reasonably considers will have a material impact on the *EAAP*.
- (m) *AEMO* must comply with the *EAAP principles* in preparing the *EAAP guidelines*.
- (n) *AEMO* must comply with the *EAAP guidelines* in preparing the *EAAP*.
- (o) *AEMO* must develop and *publish* the *EAAP guidelines* in accordance with the *Rules consultation procedures*.
- ~~(p) *NEMMCO* must develop and *publish* the first *EAAP guidelines* by 30 June 2009 and there must be a set of *EAAP guidelines* available at all times after that date.~~
- (q) *AEMO* may from time to time in accordance with the *Rules consultation procedures* amend or replace the *EAAP guidelines*.

#### **Provision of information to Scheduled Generators**

- (r) *AEMO* must provide to each *Scheduled Generator*, based on the relevant *GELF*, an estimate of the total energy production of the *scheduled generating units* of that *Scheduled Generator* for the period of the *EAAP*.

### **11.x Rules consequential on the making of the National Electricity Amendment (Amendments to EAAP) Rule 201X**

#### **11.x.1 Definitions**

In this rule 11.x:

**Amending Rule** means the *National Electricity Amendment (Amendments to EAAP) Rule 201x No. x*.

**Commencement date** means the date the Amending Rule commences operation.

#### **11.x.2 EAAP guidelines**

All actions taken by *AEMO* prior to the commencement date in anticipation of the commencement date for the purposes of preparing and *publishing* amended *EAAP guidelines* as required by clause 3.7C(q) are taken to satisfy the equivalent actions required for *EAAP guidelines* under rule 3.7C.

#### **11.x.3 Timetable**

- (a) *AEMO* must amend the *timetable* in accordance with clause 3.4.3(b) to take into account the Amending Rule and those amendments are to take effect from the commencement date.