Australian Energy Market Commission

AEMC
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RULE

Rule determination

National Gas Amendment (ECGS Enhancing reliability and supply adequacy arrangements) Rule 2026

Proponents

Energy Senior Officials
Victorian Minister for Energy and Resources

25 June 2026

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About the AEMC

The AEMC reports to the energy ministers. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the energy ministers.

Acknowledgement of Country

The AEMC acknowledges and shows respect for the Traditional Custodians of the many different lands across Australia on which we live and work. The AEMC office is located on the land of the Gadigal people of the Eora nation. We pay respect to all Elders past and present, and to the enduring connection of Aboriginal and Torres Strait Islander peoples to Country.

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Summary

1 A reliable east coast gas system (ECGS) will continue to be essential to manage Australia's energy transition. It is important for industrial and commercial entities that are still natural gas dependent, as well as residents with gas hot water, cooking and heating.

2 In addition, gas for electricity generation is now critical to maintaining the reliable and secure operation of the national electricity market (NEM). This is because gas-powered generation (GPG), along with batteries, help manage extended periods of low variable renewable energy generation, providing firming support and grid security as coal generators gradually retire.[1]

3 Peak day gas consumption from GPG in winter is also forecast to grow above historical levels as winter peaks become greater than those in summer. This growth reflects the likelihood of lower renewable generation in winter, combined with the decline in coal-fired electricity generation and the increasing rate of electrification across society. This makes gas infrastructure investment critical to cater for the volatility in demand.[2]

4 For these reasons, the ECGS will need to maintain high levels of reliability during the energy transition while also managing the evolving role of covered gas as the sector transforms. The proposed domestic gas reservation scheme will support a more reliable gas supply when fully operational. Nevertheless, as the scheme is likely to have a greater impact on annual or structural supply adequacy, there may remain some risk that supply may not always meet peak demand needs. This balancing of structural and peak day reliability risks into the future, while the overall energy sector is transforming, is the challenging context in which this rule change request has been considered.

The final rule implements enhancements to the reliability and supply adequacy arrangements

5 The Australian Energy Market Commission (AEMC or Commission) has made a more preferable final rule that amends the National Gas Rules (NGR) to enhance the existing arrangements supporting reliability and supply adequacy in the East Coast Gas System (ECGS), which came into effect on 4 May 2023. This final determination and final rule respond to the rule change request submitted by the Chair of the Energy Senior Officials Group and the Hon Lily D'Ambrosio MP, Victorian Minister for Climate Action, Minister for Energy & Resources and Minister for the State Electricity Commission (the proponents) in July 2024, which sought to introduce a reliability standard and other reliability tools to complement the existing arrangements.

6 The Commission supports the objective of the rule change request to ensure market participants and the Australian Energy Market Operator (AEMO) have the right tools and information to make efficient decisions when responding to risks or threats to reliability and supply adequacy (RSA) in the ECGS, both in the short- and longer-term.

7 We consider the arrangements introduced in the final rule provide fit-for-purpose frameworks to promote market-led responses to reliability and supply adequacy risks or threats, and will also support AEMO's appropriate exercise of the newly introduced Supplier of Last Resort (SoLR) mechanism. The changes also introduce principles to strengthen AEMO's forecasting methodology for longer-term outlooks, as well as planning and investment information to help maintain efficient and reliable outcomes in relation to covered gas services in the ECGS.

1 AEMO, 2026 Gas statement of opportunities, p 6.
2 AEMO, 2026 Gas statement of opportunities, pp 6-7.

8 The final rule consists of three major components:

- **A risk or threat signalling framework** - introducing an objective and transparent framework for AEMO to assess, classify and communicate risks or threats to reliability and supply adequacy in the ECGS.
- **New governance arrangements for market settings reviews** - establishing a Gas Reliability Committee (GRC) and corresponding governance arrangements to support reviews of the declared wholesale gas market (DWGM) and short term trading market (STTM) settings.
- **Enhancements to AEMO's Gas Statement of Opportunities (GSOO) and Victorian Gas Planning Report (VGPR)** - including information on forecast supply shortfalls and, where reasonably practicable, more granular regional assessment of gas supply adequacy in the GSOO. In addition, AEMO will consult on and publish its gas supply adequacy assessment methodology.

9 The rule does not introduce a reliability standard in the ECGS. The Commission considers that such a standard will not be effective for the ECGS, is not proportionate to the concerns expressed by the proponents, and is not aligned with the National Gas Objective (NGO). The Commission considers that applying a framework based on what currently exists in the national electricity market (NEM), which is intended to support long-term planning, to resolve short-term demand-supply imbalances, is not the most effective nor appropriate solution to meeting the objectives and outcomes outlined in the rule change request.

The Commission has considered stakeholder feedback in making its decision

10 Our final determination has been shaped by the feedback we received from stakeholders in response to our consultation and directions papers; and the draft determination. The submissions to the draft determination further confirmed our overall policy direction, and helped us refine aspects of the new frameworks to better balance principles-based rules with practical implementation.

11 Stakeholders have continued to support the introduction of the risk or threat signalling framework through the process. There was also continued support for establishing GRC governance for the review of the market settings and for the enhancements to the GSOO and VGPR and related forecasting methodology principles.

12 Throughout consultation, most stakeholders supported the AEMC's direction to enhance the RSA framework without introducing an ECGS-wide reliability standard, noting the risks of inefficiency and complexity with such a standard.

13 AEMO raised concerns that not having a reliability standard shifts complexity and risk to operational and procedural decisions. The Commission recognises that the implementation and operation of the risk or threat signalling framework will not be a simple task. However, we also consider that given the reliability standard would not have provided an effective tool in the ECGS, the appropriate and more effective place for those decisions resides with AEMO and its procedures, which can more flexibly evolve over time in consultation with industry.

We assessed our rule against four assessment criteria

14 The Commission has considered the NGO[3] and the issues raised in the rule change request and assessed the rule against the assessment criteria of:

3 Section 23 of the NGL.

- safety, security and reliability
- principles of market efficiency
- implementation considerations
- principles of good regulatory practice.

15 The Commission considers the more preferable final rule will contribute to achieving the NGO by:

- promoting efficient market responses by supporting clearer communication from AEMO to the market, in relation to identified risks or threats to reliability and supply adequacy in the ECGS
- balancing implementation considerations by introducing fit-for-purpose tools that can satisfy reliability and supply adequacy objectives
- promoting a principles-based approach over prescription to support a predictable and transparent process, while also providing flexibility for AEMO and the proposed GRC.

The risk or threat signalling framework aims to support reliability outcomes

16 This framework aims to improve reliability outcomes in the ECGS by promoting more efficient, market-led responses to emerging supply shortfall risks.

17 Under the final rule, AEMO is required to provide clearer and more transparent information on risks or threats through a tiered notice framework. Under the framework, AEMO will assess the probability and potential severity of potential shortfalls, including magnitude, timing, and location, and communicate these to the market. This strengthened communication will give participants more timely and clearer signals, enabling proportionate responses and reducing the need for costly AEMO interventions.

18 The framework includes three tiers for classifying risks or threats. AEMO will use the results of the probability and severity assessments of a forecast supply shortfall to inform which tier the risk or threat falls into. The classification could be escalated or de-escalated based on updated assessments. Alongside any tier 3 threat notice, AEMO is required to estimate and communicate the time after which it may need to consider intervening. The final rule requires AEMO to establish procedures for assessing and classifying identified risks or threats (risk or threat assessment procedures).

19 The framework aligns with related stage 2 rule changes, Projected Assessment of System Adequacy (PASA) and Supplier of Last Resort (SoLR), supporting coherent and efficient implementation across the wider reliability and supply adequacy framework.

The GRC governance for the review of the market settings supports good regulatory practice and minimise implementation complexity

20 The final rule introduces the GRC, appointed by the AEMC, to review and make recommendations on the market settings in the DWGM and STTM. The GRC structure gives industry, consumer representatives and AEMO a meaningful role in advising on the market settings, while keeping the final decision-making authority with the AEMC. This approach aims to support coordination across the facilitated markets, principles-based reviews, and avoid unnecessary rule changes.

21 The AEMC will develop an operation manual and consult on market review guidelines the GRC will follow when conducting the reviews. The GRC will conduct reviews every four years and, after consulting, it will issue a report for the AEMC to determine any new market settings by making an instrument to be published in the South Australian Government Gazette.

22 The governance model is designed to minimise complexity and costs, with the GRC convened only

once every four years for each review rather than operating continuously.

Enhancements to the GSOO and the VGPR information and forecasting approach will support long-term reliability outcomes

23 The final rule explicitly requires AEMO to report identified risks of gas supply shortfalls in its gas supply adequacy assessments included in the GSOO and VGPR. It also requires AEMO, where reasonably practicable, to provide regional assessments. These changes aim to enable more targeted planning and investment decisions across the ECGS. The final rule does not introduce additional information requirements for market participants.

24 The final rule requires AEMO to consult on and publish its gas supply adequacy assessment methodology, increasing transparency and confidence in medium- and long-term forecasts without adding unnecessary regulatory burden. This approach avoids the complexity of AER developing best-practice guidelines, while still improving clarity, credibility and stakeholder engagement in AEMO's forecasting processes.

25 The final rule introduces principles to be applied to the methodology such as it being consistent with industry best practice and to provide for publication of the final inputs, assumptions and scenarios used by AEMO in its forecasting. The methodology may also provide for AEMO to take into account consultation that it has undertaken as part of its other statutory functions when determining the inputs, assumptions and scenarios to be used in its forecasting.

Most changes will be implemented in time for winter 2027

26 The rule change request proposed the enhancements to the RSA framework would need to be implemented by winter 2027. For the updated framework to be operational by then, the final rules require AEMO to review and, where necessary, update existing relevant procedures and guidelines by 1 April 2027. The initial risk or threat signalling framework will be operational once the risk or threat assessment procedures are published by 1 April 2027. The gas supply adequacy assessment methodology will be published by 1 October 2027 to inform the 2027 GSOO and VGPR to be published in 2028.

27 The Commission acknowledges that the effectiveness of the risk or threat framework will rely on AEMO developing key elements, such as tier thresholds and assessment methodologies, by leveraging as much as possible existing modelling capabilities and supported by the new PASA mechanism. To that end, AEMO will use existing processes for identifying risks or threats, until such time as the new PASA mechanism is operational. At that point in time, it will rely on information in PASA to inform its assessment of risks or threats.

28 Under the NGR, AEMO is scheduled to review the STTM market settings by October 2026. Given the timing of this final determination, the Commission has retained the requirement for AEMO to complete this year's review. While we recognise that establishing a GRC is the right policy for future reviews, having AEMO retain the role for this year's review ensures it occurs on time while drawing on AEMO's expertise from past reviews. It will then allow the first GRC-led review to proceed on a full and orderly four-year cycle. The GRC will therefore take over from the 2030 review cycle, for the settings to be in place for the 2032-2036 period.

Key differences between draft rule and final rule

29 Stakeholder submissions to the draft determination confirmed our overall policy direction and helped us refine certain aspects of the new frameworks. The key differences between the draft

and final rules are:

- refinements related to the probability and severity assessments as part of the risk or threat signalling framework
- clarifications related to the consultation requirements for the AEMC and GRC across the market settings review process
- increase in the number of additional representatives able to be appointed to the GRC
- changes to the principles to underpin AEMO's gas supply adequacy assessment forecasting methodology as used in the GSOO and VGPR
- removal of a requirement for AEMO to include an assessment of likelihood of a supply shortfall as part of the gas supply adequacy assessments in the GSOO and VGPR.

Contents

Tables

Figures

1 The Commission has made a final determination

The Australian Energy Market Commission (AEMC or Commission) has made a more preferable final rule in response to a rule change request submitted by the Chair of the Energy Senior Officials and the Hon Lily D'Ambrosio MP, Victorian Minister for Climate Action, Minister for Energy & Resources and Minister for the State Electricity Commission (the proponents) in July 2024.

The rule change request proposed introducing a range of tools for the East Coast Gas System (ECGS) to manage risks or threats to reliability and supply adequacy (RSA). The request proposed:

- an ECGS-wide reliability standard to highlight where and when supply inadequacies or risks or threats to reliability may occur
- the level of the reliability standard to be informed by a value of gas customer reliability (VGCR) that would be calculated by the Australian Energy Regulator (AER)
- the reliability standard, to be defined by the AEMC, to inform a threat signalling mechanism based on the extent and type of a potential breach to the reliability standard
- the facilitated market settings, to be reviewed by the AEMC and informed by the reliability standard
- a reliability forecast to be introduced in the Gas Statement of Opportunities (GSOO) and Victorian Gas Planning Report (VGPR) which would be an assessment of supply adequacy against the reliability standard
- an assessment of credible risks to system resilience to also be introduced in the GSOO and VGPR.

In addition, a potential or actual breach to the reliability standard would have triggered the Australian Energy Market Operator's (AEMO's) directions and trading function, and the proposed Supplier of Last Resort (SoLR) mechanism.

This chapter outlines:

1. the three key improvements we are introducing in the more preferable final rule
2. the key themes that emerged from stakeholder feedback to the draft determination
3. how this rule fits into the broader work relating to the ECGS.

1.1 Our final rule enhances several tools to contribute to ECGS reliability

The Commission agrees with the proponents that, as the ECGS becomes more exposed to tightening supply and demand conditions, the current RSA framework may not support efficient outcomes. This may result in disproportionate responses to reliability risks or threats.

To address these issues, and in response to the rule change request and stakeholder feedback, the Commission is making a more preferable final rule to improve reliability outcomes and the effectiveness of AEMO's RSA functions by enhancing the existing framework with fit-for-purpose mechanisms. The three key amendments to the National Gas Rules (NGR) are outlined below.

We made a number of changes to the draft rules following stakeholders' submissions to the draft determination. Most of these changes aim to add clarity to improve the effective implementation of the new frameworks. Chapter 3, chapter 4 and chapter 5 of this final determination describe the final frameworks in detail and appendix C provides a summary of significant changes between draft and final rules.

1.1.1 The final rule establishes an objective and transparent risk or threat signalling framework

The final rule introduces an objective and transparent framework for AEMO to assess, classify and communicate risks or threats to reliability and supply adequacy in the ECGS. In this paper this is referred to as the 'risk or threat signalling framework'.

Under this framework, AEMO will assess the probability and the potential severity of identified risks or threats to reliability and supply adequacy. The identification of any risks or threats will be made as a result of demand-supply assessments conducted by AEMO, including through the newly introduced Projected Assessment of System Adequacy (PASA).

Based on the probability and severity assessments, AEMO will classify the level of risk or threat and communicate this information to ECGS market participants by issuing tiered risk or threat notices. The information contained in the notices aims to elicit market participant responses to mitigate the identified risks or threats in a proportionate and targeted way.

The Commission considers this would, in turn, improve market efficiency, as AEMO would only need to exercise its direction and Supplier of Last Resort (SoLR) functions as last-resort options, when AEMO considers responses from market participants are inadequate. See chapter 3 for more details on the proposed arrangements.

1.1.2 The final rule introduces governance arrangements for the market settings reviews

The final rule introduces new governance arrangements for the review of the declared wholesale gas market (DWGM) and the short term trading market (STTM) settings.

Under the governance arrangements, the AEMC will convene a gas reliability committee (GRC) to conduct the review of the DWGM and STTM market settings concurrently. The AEMC is also required to publish an operating manual for the GRC and consult and publish market settings guidelines to govern the GRC reviews of the market settings.

During the reviews, the GRC will be required to consider the impact of market settings on spot prices, bilateral gas supply contract prices, the supply capacity of covered gas and financial risks to market participants. The AEMC will issue terms of reference to the GRC to initiate each review.

The GRC will conduct the reviews based on the guidelines and the review-specific terms of reference, and will recommend any necessary updates to the market settings to the AEMC. See chapter 4 for more details on the proposed arrangements.

The Commission considers changing the responsibility for future reviews from AEMO to the GRC will give stakeholders, industry representatives and consumers a meaningful voice in the process and leverage their expertise and perspectives in gas markets. It will also allow the AEMC to weigh the GRC recommendations against broader policy, technical, and economic considerations.

1.1.3 The final rule enhances the GSOO and VGPR

The final rule requires AEMO to provide additional information as part of the GSOO and VGPR, including an explicit requirement for AEMO to provide its assessment of an identified risk of supply shortfall. It also requires a breakdown of the gas supply adequacy assessments by region in the GSOO, where reasonably practicable.

The final rule requires the gas supply adequacy assessment (GSAA) methodology to be consistent with forecasting best practice and must provide for publication of the final inputs, assumptions and scenarios used. The methodology may also provide for AEMO to take into account consultation that it has undertaken as part of its other statutory functions (e.g.Inputs Assumptions and Scenarios) when determining the inputs, assumptions and scenarios to be used

for GSAA forecasting. Therefore, the final rule does not require the AER to develop forecasting best practice guidelines for AEMO to follow, as proposed in the rule change request. See chapter 5 for more details on the final arrangements.

The final rule does not require AEMO to conduct an additional assessment of credible risks to system resilience.

1.2 Stakeholder feedback shaped our final determination

The thirteen stakeholder submissions to the draft determination confirmed our overall policy direction, and helped us refine aspects of the new frameworks.[4] Submissions came from retailers, gas producers, gas powered generators (GPGs), liquified natural gas (LNG) producers and exporters, pipeline operators, small users representatives and industry organisations.

This section provides a broad overview of stakeholder positions, while the following chapters provide detailed information on changes made to the draft rules for the final.

1.2.1 Stakeholders confirmed our decision to not proceed with an ECGS reliability standard

In the draft determination, the Commission set out our views that a reliability standard framework would not be effective in benchmarking efficient reliability outcomes for the ECGS.[5] Of the eight stakeholders who commented on the decision to not proceed with a reliability standard, all but AEMO supported the Commission's position.[6]

AEMO raised a concern that not having a reliability standard shifts decisions on complexity and risk to operational and procedural decisions. We recognise that the implementation and operation of the risk or threat signalling framework will not be a simple task. However, we also consider that given the reliability standard would not have provided an effective tool in the ECGS, the appropriate and more effective place for those decisions resides with AEMO and its procedures, which can more flexibly evolve over time in consultation with industry.

1.2.2 We have refined aspects of the rules to address stakeholder feedback

Stakeholders broadly supported the introduction of the risk or threat signalling framework, establishing a GRC governance for the review of market settings and improvements to the GSOO and VGPR. We have retained those decisions in the final determination.

We have refined some of the terms and language used in the risk or threat signalling framework in response to feedback from AEMO and APLNG.[7] The Commission made minor changes to the risk or threat signalling framework to clarify that the risk or threat classification must be primarily based on the outcomes of the probability and severity assessments. In addition, the Commission made a change to specify that the risk or threat notices must be published after classifying an identified risk or threat at any of the tiers (1,2,3). These changes, and responses to other stakeholder input on this, are set out in chapter 3.

Stakeholders were generally supportive of the approach to convene a GRC to review the market settings in the STTM and DWGM. However, some stakeholder feedback noted the proposed number of representatives for the GRC could be reconsidered to ensure more balanced

4 ECGS Enhancing reliability and supply adequacy arrangements.
5 For more information, see Chapter 1 of the directions paper.
6 Submissions to the draft determination, AEMO, p 1. AGL, pp 1-2. APA, p 6. AGPA, pp 1-2. APLNG, p 1. EUAA, p 2. Origin, p 1.
7 Submissions to the draft determination, AEMO pp 2-3. APLNG, pp 2,3,7.

representation.[8] In the final rule, we have expanded the number of additional representatives able to be appointed to the GRC from a minimum of one to a minimum of three and a maximum of nine, supporting broader representation across the ECGS. Stakeholders also provided input on consultation requirements for the AEMC and GRC across the market settings process, and we have clarified those requirements, as set out in chapter 4.[9]

The Commission has also made minor changes to the gas supply adequacy assessment (GSAA) methodology principles, including that the methodology must be consistent with best practice, in response to AEMO's concerns the final rule would create unintended consequences.[10] Stakeholders recommended further changes to the rules regarding the GSOO and VGPR, which we do not consider met the NGO, which is discussed in chapter 5.

1.3 Making the final determination in a changing landscape

This final rule will operate alongside RSA rule changes and related RSA reforms to also support broader sector gas reforms.[11]

1.3.1 Our determination supports RSA reforms

This rule change forms part of a broader package of reforms implementing the 'stage 2' RSA framework through amendments to the NGR. The background to the stage 2 reforms is outlined in our background paper published in March 2025.

The combined effect of the final rules is a framework that provides AEMO with gas demand - supply assessment mechanisms (PASA), guidance for AEMO to inform industry participants about the gas reliability and supply adequacy risks or threats, and, as relevant, the use of the SoLR mechanism and other interventions. This approach will result in a single, systematic arrangement that AEMO and industry participants can use and reference. The relationships between the rules, and the previously made notice of closure (NOC) rule change, is illustrated in Figure 1.1 below.

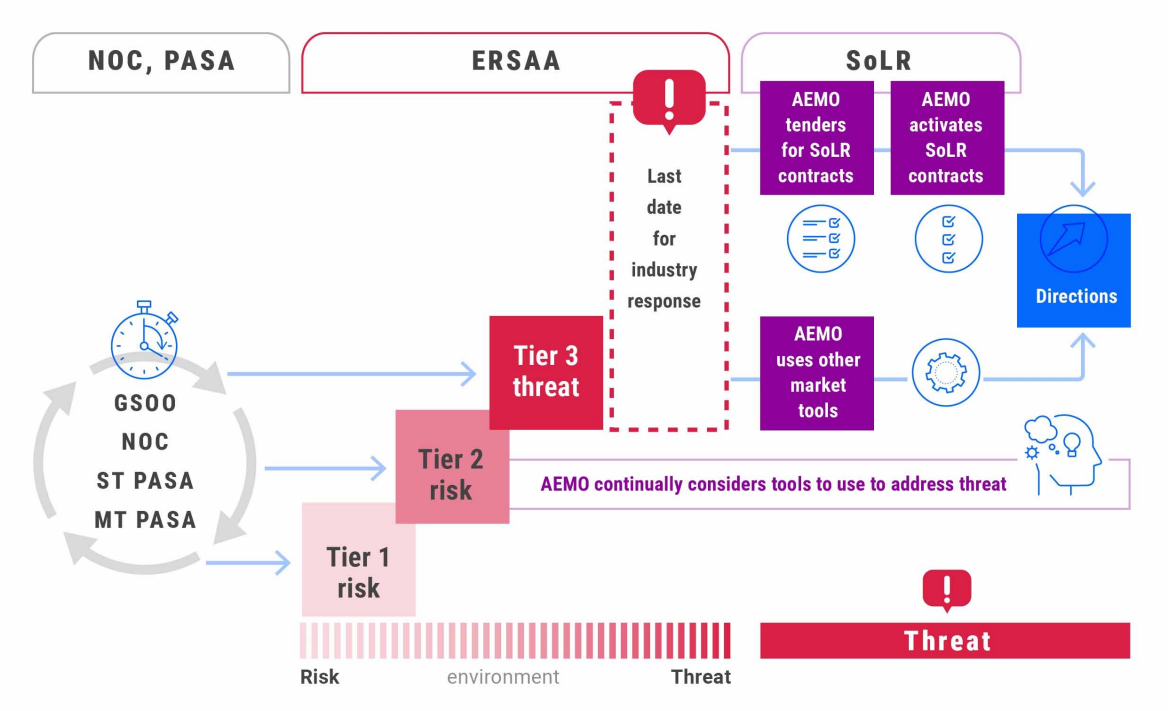
8 Submissions to the draft determination: Alinta Energy, p 2. APA, pp 6-7. APLNG, p 5. EUAA, p 2. Origin Energy, pp 2-3.

9 Submissions to the draft determination, APA, p 7. APGA, p 2. Origin, p 3.

10 AEMO submission to the draft determination, pp 3-4.

11 In their submission, QEUN stressed that the current gas supply crisis is rooted in government policy failures, arguing that rule changes alone cannot resolve supply issues and that broader policy intervention is required.

Figure 1.1: Stage 2 RSA reforms: relationship between NOC, PASA, ERSAA and SoLR rules



Source: AEMC

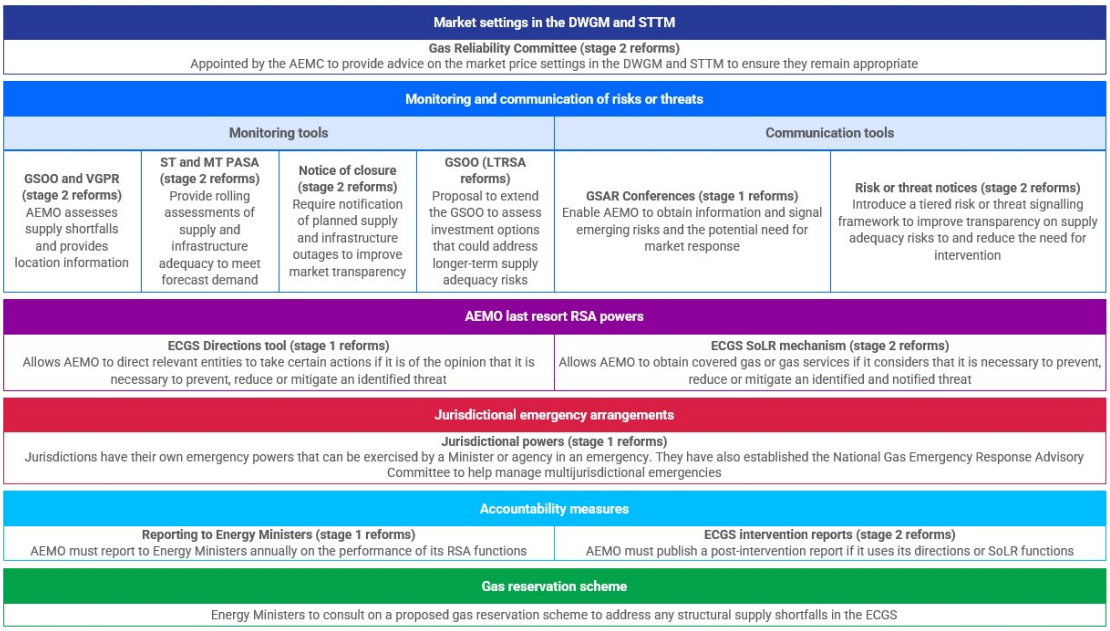
Since the lodgement of the stage 2 RSA rule change requests, governments have continued to work on reforming the gas sector. Of most relevance to this final determination is a third reform package for the RSA framework (the LT RSA reforms). This package included two aspects: a new ability for AEMO to support investment in gas infrastructure, and including in the GSOO more detailed information on potential supply-side projects that could be developed to alleviate potential structural shortfalls in the ECGS.

Following public consultation Energy Ministers have decided to progress with consulting on including more detailed information on potential supply-side projects in the GSOO that could be developed to alleviate potential structural shortfalls in the ECGS. Energy Ministers will also develop further work on the proposed east coast gas reservation scheme.[12]

The below illustrates the full RSA framework for the ECGS, assuming that the GSOO extension changes are made as they are currently described. As indicated, some tools within the framework interact with others.

12 Energy and Climate Change Ministerial Council, meeting communique, 8 May 2026.

Figure 1.2: Key components of the RSA framework



Note: Stage 1 reforms came into effect in May 2023, Stage 2 has been delivered through the NOC, PASA, ERSAA and SoLR rules. Energy Ministers are considering the long-term reliability and supply adequacy (LTRSA) proposals

Source: AEMC

In making this final determination, the Commission considered the links with the ECGS SoLR mechanism and the ECGS PASA rules.[13] This has meant considering the rules' market and technical arrangements holistically when testing their ability to promote the NGO.[14]

For example, the risk or threat signalling framework will utilise PASA outputs. The SoLR rule then builds on the risk or threat signalling framework.

1.3.2 Our final determination supports broader gas sector reforms

The Commonwealth's Gas Market Review report was published in December 2025. The review's key recommendation is to replace the Australian Domestic Gas Security Mechanism (ADGSM), heads of agreement (HoA) and key parts of the Gas Market Code with a domestic gas reservation scheme. As proposed, this scheme would require LNG exporters to commit to supply a share of their production, equivalent to 20 per cent of exports, to the domestic market in return for the ability to export LNG.[15] Complementary recommendations from the review include changes regarding:[16]

- pricing - to remove the Gas Market Code reasonable price mechanism and make other changes to improve price competition and transparency
- market conduct and efficiency - amend the expression of interest provisions of the Gas Market Code and make other reforms to improve market liquidity

13 The ECGS Notice of closure of gas infrastructure (NOC) rule change process was completed on 11 September 2025.

14 We also note that some stakeholder submissions to this rule change provided comments on the SoLR and/or PASA rule changes. Those comments are addressed in the relevant final determination(s).

15 Media release, Albanese Government to secure Australian gas for Australian users, 7 May 2026.

16 DCCEEW and DISR, *Gas market review report*, 22 December 2025.

- market transparency - expand AEMO's reporting remit on the Bulletin Board in conjunction with improving information sharing arrangements between energy market bodies and the Australian Competition and Consumer Commission (ACCC), and minimising duplicative information collection regimes.

Some of the review's recommendations leverage the stage 2 RSA rules, particularly PASA.[17] The Commonwealth is progressing work on its recommendations, with consultation on the draft design closing on 30 June 2026.

1.4 How the stage 2 rules will be implemented

The final rules comprising this package of reforms will be implemented progressively. The final rules specify key dates for implementing the package of reforms. The sequence of key dates, milestones and related rules is listed in Table 1.1 below.

Table 1.1: The rules will be implemented progressively

Date	Milestone	RSA Rule
16 July 2026	Transitional rules commence. This commencement enables the following activities and milestones.	PASA, ERSAA, SoLR
5 November 2026	After the completion of the 2026 market settings review, AEMO is no longer required to conduct those reviews.	ERSAA
1 April 2027	AEMO's ECGS and BB procedure updates, including: • Details of PASA related new and amended information disclosure requirements • Details of the SoLR mechanism • Risk or threat signalling framework From this date AEMO will use its existing processes to operate the risk or threat signalling framework, until the new PASA is fully operational (8 June 2028).	PASA, ERSAA, SoLR
1 October 2027	AEMO publishes the gas supply adequacy assessment (GSAA) methodology.	ERSAA
6 April 2028	New information disclosure obligations commence for industry participants AEMO commences a PASA trial.	PASA
8 June 2028	AEMO formally commences PASA. AEMO to use PASA outputs to inform its assessment of risks or threats.	PASA

Source: AEMC

17 DCCEEW and DISR, *Domestic gas reservation scheme draft design framework*, May 2026, p 19.

2 The rule will contribute to the energy objectives

We consider our more preferable rule will promote the NGO. In particular:

- promoting efficient market responses by supporting clearer communication from AEMO to the market, in relation to identified risks or threats to reliability and supply adequacy in the ECGS
- balancing implementation considerations by introducing tools that can proportionally satisfy reliability and supply adequacy objectives
- promoting a principles-based approach over prescription to support a predictable and transparent process, while also providing flexibility for AEMO and the GRC.

2.1 The Commission must act in the long-term interests of energy consumers

The Commission can only make a rule if it is satisfied that the rule will or is likely to contribute to the achievement of the relevant energy objectives.[18]

For this rule change, the relevant energy objective is the NGO:

The NGO is:[19]

> to promote efficient investment in, and efficient operation and use of, covered gas services for the long term interests of consumers of covered gas with respect to—
>
> (a) price, quality, safety, reliability and security of supply of covered gas; and
>
> (b) the achievement of targets set by a participating jurisdiction—
>
> (i) for reducing Australia's greenhouse gas emissions; or
>
> (ii) that are likely to contribute to reducing Australia's greenhouse gas emissions.

The targets statement, available on the AEMC website, lists the emissions reduction targets to be considered, as a minimum, in having regard to the NGO.[20]

2.2 We must also take these factors into account

The rule change request noted that there could be a potential for consequential amendments to be required in Part 19 of the NGR, which relates to the DWGM.

The Commission is able to change Part 19 rules as the Victorian Minister is a proponent of the rule change request.

2.2.1 We have considered whether to make a more preferable rule

The Commission may make a rule that is different, including materially different, to a proposed rule (a more preferable rule) if it is satisfied that, having regard to the issue or issues raised in the rule change request, the more preferable rule is likely to better contribute to the achievement of the NGO.[21]

18 Section 291(1) of the NGL.
19 Section 23 of the NGL.
20 Section 72A(5) of the NGL.
21 Section 296 of the NGL.

For this rule change, the Commission made a more preferable final rule. The reasons are set out in section 2.3 below.

2.2.2 We have considered how the rule will apply in Western Australia

The rule change request focuses on the new reliability and supply adequacy framework for the ECGS. Accordingly, the WA NGR is not impacted.

2.3 How we have applied the legal framework to our decision

The Commission must consider how to address potential inefficient decisions from AEMO and market participants when responding to future reliability or supply adequacy risks or threats over the short, medium and longer term against the legal framework.

We identified the following criteria to assess whether the proposed rule change, no change to the rules (business-as-usual), or other viable, rule-based options are likely to better contribute to achieving the NGO:

- safety, security and reliability
- principles of market efficiency
- implementation considerations
- principles of good regulatory practice.

These assessment criteria reflect the key potential impacts of the rule change request, for impacts within the scope of the NGO. Our reasons for choosing these criteria are set out in section 4.2 of the consultation paper.

The Commission has evaluated the impacts of the more preferable rule against the assessment criteria, taking into account stakeholder submissions.

The rest of this section explains why the final rule best promotes the long-term interest of consumers when compared to other options and assessed against the criteria.

We have made a more preferable final rule, taking into account feedback provided by stakeholders in response to the consultation and direction papers, and draft determination. The following changes are included in the more preferable final rule:

- a tiered risk or threat signalling framework that will support clearer communication to market participants about risks or threats to reliability and supply adequacy in the ECGS
- establishing the GRC to concurrently review the DWGM and STTM market settings
- introduction of high level criteria for the review of the market settings
- enhancements to the GSOO and VGPR and related forecasting process to better support medium to long term planning and investment decisions.

The Commission's view is that, after having regard to the issues raised in the rule change request, the more preferable final rule will, or is likely to, better contribute to the achievement of the NGO than the proposed rule by also interacting constructively with related rule changes such as ECGS PASA and ECGS SoLR.

The reasons for the more preferable final rule are summarised in the sections below.

2.3.1 The risk or threat signalling framework will support short-term reliability outcomes

The risk or threat signalling framework promotes the efficient operation and use of covered gas services

The Commission considers the risk or threat signalling framework (the framework) will promote market efficiency by encouraging market-led responses to forecast gas supply shortfalls and reducing the need for potentially more costly AEMO interventions in the ECGS. The final rule supports these outcomes by improving the transparency, timeliness and utility of the information AEMO provides to ECGS participants in relation to emerging risks or threats to the reliability and supply adequacy of covered gas in the ECGS.

The final rule requires AEMO to include additional information about the identified risk or threat in risk or threat notices (notices), including the assigned risk or threat tier, the circumstances surrounding the risk or threat, its likely onset, and the affected location.

Through a tiered approach, market participants will be able to discern whether the notice refers to a low risk or to a potentially severe and highly likely supply shortfall (high risk) and respond in a timely and proportionate manner. This will promote the efficient operation of covered gas services within the ECGS. For example, an early notice provided by AEMO about a potential winter shortfall in Victoria, with low probability of occurrence, could prompt storage market participants to adjust injection plans into a storage facility. On the other hand, a tier 3 notice indicating that a supply shortfall is highly likely within the next 2–3 days and AEMO would intervene unless conditions improve, may incentivise participants who are best placed to respond cost-effectively to take action. This would not only reduce participants' uncertainty around AEMO's use of its direction function or the SoLR mechanism, but also reduce the risk of untimely intervention by AEMO when its powers might be needed as last-resort tools.

While the final rules allow for a clear escalation and de-escalation of tiered notices as market conditions evolve, the framework will also improve the timeliness and utility of the information provided to market participants. This will further contribute to eliciting more efficient and proportionate responses from market participants, as participants will be able to make decisions based on information that more closely reflects system conditions.

Finally, the framework will further enhance the transparency of information provided to participants by requiring AEMO to assess and classify identified risks or threats in accordance with risk or threat assessment procedures, developed in consultation with industry and made public. The Commission considers this will improve confidence in AEMO's reliability and supply adequacy-related communications and promote proportionate and timely market responses.

As a result, the Commission considers the framework will promote market efficiency by supporting more informed commercial decisions by market participants, incentivising responses through pricing instead of directions, and enabling those parties best placed to manage risks or threats in the ECGS to take timely and appropriate action, supporting market-led outcomes.

The risk or threat signalling framework will improve safety, security or reliability within the ECGS

The Commission considers the framework will also improve reliability within the ECGS by encouraging market-led responses to forecast supply shortfalls and by providing more granular information about emerging risks or threats to reliability and supply adequacy. The framework will also indirectly contribute to the security of the ECGS. While the risk or threat signalling framework supports the assessment and communication of gas shortfalls that can be forecast in advance, we consider the tiered notices can also support AEMO in communicating the emergence of risks

or threats to RSA resulting from compromised system operability, for instance, from events such as a pipeline failure.

We have adhered to principles of good regulatory practice and considered implementation matters

The final rule favours a principle-based approach over prescription, except where prescription is necessary. For example, the final rule identifies the factors and matters that AEMO must consider when classifying risks or threats, leaving specific parameters to AEMO's procedures. As AEMO will consult with industry in developing these procedures, we consider this solution strikes the appropriate balance between predictability and flexibility.

The Commission has considered how the framework could support the other related stage 2 gas reforms, including the SoLR and PASA rule changes. The risk or threat framework will leverage PASA outputs, as AEMO will use this information to further assess and classify a risk or threat into a tier. The SoLR rule change will leverage the tiered risk or threat notices of the framework as preconditions for the procurement and activation of the SoLR mechanism. These rule changes will be implemented as a package to ensure an efficient and effective implementation.

2.3.2 Establishing a GRC to review the market settings will support good regulatory practice and minimise implementation complexity

The GRC governance will promote good regulatory practice by establishing clear roles and responsibilities

Establishing a GRC, as described in chapter 4, will strengthen the robustness of the STTM and DWGM market settings reviews. The supporting governance arrangements will allow the AEMC to make a final decision while drawing on diverse views from relevant representatives participating in the GRC. This is consistent with the policy intent of the rule change request. The proponents recommended the AEMC be responsible for reviewing the market settings in the STTM and DWGM, as this would be more closely aligned with statutory functions for the AEMC as compared to AEMO. The rule change request also suggested that if the AEMC decided to establish a panel, committee or working group, then its composition would be a matter for the AEMC.[22]

The rules set out clear roles and responsibilities between the AEMC and the GRC. The GRC operating manual and market settings guidelines will provide complementary details. This creates a robust framework which also provides adequate flexibility for the GRC to operate and conduct the reviews.

The governance arrangements will support reviews conducted in accordance with good regulatory practices. This includes setting clear and transparent expectations upfront for each review, supported by the publication of market settings guidelines and meaningful consultation opportunities during both the formation of the GRC and through the course of the reviews. See chapter 4.

The final rules also make it explicit that both STTM and DWGM market settings must be reviewed concurrently after the NEM market settings review. Formalising the requirement for review of the STTM and DWGM market settings will promote predictability and stability in the regulatory framework for stakeholders. Under the current rules, AEMO is only required to review the STTM market settings, however, over the years, AEMO has decided to review both.

22 Rule change request, p 51.

The GRC governance is designed to minimise implementation complexity and achieve efficient operation

The Commission considers that the GRC governance will minimise the cost and complexity of implementation. Chapter 4 describes how the rule and the GRC will operate. The AEMC will convene the GRC, manage membership for each review, and consult on and publish market settings guidelines for the GRC. Although the framework appears similar to the NEM reliability panel arrangements, there is an important difference. The GRC's role is limited to the market settings reviews, which only occur every four years (unlike the Reliability Panel which has a range of statutory functions). Therefore, the GRC will only need to convene for the duration of a review and will not operate continuously. This can limit the administrative costs of the GRC. The governance arrangements will also minimise implementation costs by avoiding the need for a rule change process following the GRC's review of the settings. Rather, the AEMC will implement any new market settings levels by using an instrument to be published in the South Australian Government Gazette.

The Commission notes stakeholders' concerns regarding the lack of clarity on the consultation requirements for the AEMC when making a market settings instrument. The draft determination stated the AEMC must consult as it considers appropriate when making the market settings instrument. In response to these concerns, the final rules explicitly require the AEMC to consult if making settings different from those recommended by the GRC. This approach will ensure the AEMC can leverage stakeholder and industry expertise in the gas markets as part of the review, and also consider broader policy, technical and economic considerations prior to issuing the instrument.

The AEMC is not required to consult when adopting the market settings as recommended by the GRC. This clarification supports good regulatory practice by making consultation requirements transparent, streamlined and efficient.

2.3.3 Enhancements to the long-term forecasting approach and information reporting will support long-term reliability outcomes

Requiring AEMO to consult on and publish the GSAA forecasting methodology represents good regulatory practice that will promote transparency and stakeholders confidence

The requirement for AEMO to consult on and publish its GSAA forecasting methodology represents good regulatory practice. This will improve transparency and strengthen stakeholder confidence in AEMO's long-term forecasts reported in the GSOO and VGPR. Greater confidence in the forecasts, particularly in identifying reliability and supply adequacy risks, will support more informed and timely planning and investment decisions.

The Commission also considers that introducing principles to guide AEMO's development of the GSAA forecasting methodology is preferable to requiring the AER to publish 'Gas forecasting best practice guidelines.' This approach can achieve the policy objectives of improving transparency and stakeholder confidence without imposing unnecessary complexity or costs. Requiring the AER to develop guidelines would have increased regulatory burden without providing significant additional benefits. This view was supported by several stakeholders in response to the draft determination and preceding consultation.

The final rule provides principles that require, to the extent possible, the use of industry forecasting best practice which will allow the methodology to evolve alongside market developments and adapt through the energy transition.

Requiring AEMO to report identified risks of gas supply shortfalls and undertake more granular regional assessments will support efficient planning and investment in covered gas services

The improvements to the GSOO and VGPR will provide valuable information to ECGS participants. In particular, explicitly requiring AEMO to report identified risk of gas supply shortfalls in its gas supply adequacy assessments is important to support efficient planning and investment decisions. This will, in turn, improve long-term reliability by promoting efficient investment in covered gas services.

In the final rule, the Commission did not introduce the requirement for AEMO to assess and report on the likelihood of the risk of a supply shortfall. The Commission decided to not introduce such a requirement, as it is not practical for longer-term outlooks and its introduction would be costly. Stakeholders expressed practicality concerns due to limitations in available data, complex uncertainty in weather-driven forecasting outcomes and structural changes in demand. This requirement would have imposed additional information provision requirements on industry participants.

The Commission also considers region-specific forecasts of gas supply adequacy assessments, with regions being determined by AEMO, will support more targeted planning and investment responses from industry participants. Stakeholders supported this approach.

The Commission is not introducing a new explicit requirement to assess system resilience risks in the NGR. It considers that the existing requirement in rule 135KB(1)(i) sufficiently captures system resilience considerations.[23]

Allowing AEMO to rely on these existing provisions avoids duplication and supports efficient planning without the need for further regulatory change.

23 Rule 135KB(1)(i) requires the GSOO to include any factors that may affect gas supply, pipelines or storage facilities, such as planned and unplanned outages and, for transmission pipelines and unaccounted-for gas.

3 The risk or threat signalling framework will support AEMO in assessing, classifying and communicating risks or threats

Box 1: The final rule introduces a tiered risk or threat signalling framework to support market efficiency and reliability in the ECGS

The final rule requires AEMO to:

- Develop risk or threat assessment procedures to support the objective and transparent assessment and classification of identified risks or threats.
- Consult with industry in developing these procedures.
- Assess, classify and communicate risks or threats in accordance with the procedures.
- Determine, review and amend regions within the ECGS.
- Publish, following a tier-3 notice, an estimate of the latest practicable time for an adequate market response before considering the use of direction or the SoLR mechanism.

The final rule also:

- Defines the term 'supply shortfall' to clarify the object of the probability and severity assessments under the new procedures.

The final rule establishes an objective and transparent framework (risk or threat signalling framework) for AEMO to assess, classify and communicate risks or threats to the reliability and supply adequacy of the ECGS. The Commission considers the framework will:

- support AEMO's assessment and classification of risks or threats
- improve the transparency of risk or threat notices to ECGS participants.

The framework introduces three tiers for classifying risks or threats, reflecting the degree of market (i.e., industry) response required to mitigate or prevent them. The risk or threat classification could be escalated or de-escalated over time based on updated assessments of the probability and severity of forecast supply shortfalls. AEMO is required to communicate changes in the classification of the risk or threat via the risk or threat notices. The Commission considers this approach will enable participants to respond to forecast supply shortfalls in a timely and proportionate manner, reducing the need for AEMO interventions.

AEMO is also required to publish an additional notice alongside any tier-3 threat notice. This notice needs to specify the time after which AEMO may need to consider intervening if the risk or threat is not addressed by the market. The Commission considers this will improve the predictability of the potential exercise of AEMO's functions and powers, including the direction and the SoLR mechanism.

3.1 The framework supports AEMO's assessment and classification of risks or threats

In response to the Commission's directions paper, most stakeholders (11 out of 13) supported the introduction of the risk or threat signalling framework by noting it would promote greater

transparency and objectivity in AEMO's communication across the ECGS.[24] The sentiment was similar in the submissions to the draft determination, with stakeholders providing either support or conditional support for the framework, with some suggesting improvements or clarifications.[25]

In the directions paper, the Commission sought feedback on our view that an ECGS reliability standard was not the right tool to inform the framework's tiers. In stakeholder feedback to the directions paper, this view was broadly supported (see section 1.2).[26] In response to the draft determination, only AEMO maintained support for the reliability standard but did not present additional evidence beyond what had previously been provided to support its position. The Commission has maintained its position.

The Commission has designed the framework with the following features:

- an assessment of the probability and severity of a supply shortfall
- tier classification based on both the probability and severity of a supply shortfall with the flexibility for AEMO to take into account other matters it considers appropriate
- three risk or threat tiers, enabling escalation and de-escalation as conditions change
- support for AEMO's existing or future functions.

The remainder of this section illustrates the features in detail.

3.1.1 The framework includes an assessment of the probability of a supply shortfall

The final rule requires AEMO to classify risks or threats by considering the probability of the identified risk or threat occurring and resulting in a supply shortfall in the ECGS. This will promote a meaningful classification and communication of risks or threats to the reliability and supply adequacy of the ECGS, and in turn will promote efficient responses from market participants to mitigate such risks or threats.[27]

A probability assessment will capture the uncertainty inherent in forecasting risks and threats and the likelihood of multiple adverse events occurring simultaneously. While a deterministic assessment can represent multiple scenarios, it would not capture as wide a range of possible outcomes or their combined probabilities.

In submissions to the directions paper, most stakeholders agreed a probabilistic modelling approach was preferable to a deterministic approach for the ECGS. Both AFMA and Origin noted that a deterministic 'N-X' contingency framework would be impractical for the gas system, given its reliance on multiple critical infrastructure components. They noted such an approach would likely result in the market being assessed as operating in a near-constant risk or threat state.[28]

In submissions to both the directions paper and the draft determination, stakeholders raised concerns regarding potential additional data requirements associated with a probabilistic approach.[29] The final rule does not introduce new information requirements for market participants. It is expected the information needed to conduct the probability assessments will come out of AEMO's Projected Assessment of Supply Adequacy (PASA) modelling.

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24 Submissions to the directions paper: APLNG p 2, Alinta Energy p 2, CS Energy p 2, EUAA p 2, EnergyAustralia p 1, Origin p 1, AFMA p 1, APGA p 1, AGL p 1, APA pp 4-5, Shell Energy p 2.

25 Submissions to the draft determination

26 Submissions to the directions paper: AFMA, p 1, AGL, p 1, Alinta Energy, p 1, APA, p 2, APGA, p 4, APLNG, p 1, EnergyAustralia, p 1, and Origin, p 1.

27 NGR rule 694A and 694B.

28 Submissions to the directions paper: AFMA p 1, Origin p 1.

29 Submissions to the directions paper: APLNG p 2, Shell Energy p 2 and submissions to the draft determination: APGA p 2, APLNG pp 3-4, Origin p 1.

We expect AEMO can leverage existing forecasting and modelling capabilities to produce probability assessments, thus reducing implementation time and complexity.

The scope of the probability assessment has been limited to mitigate the risk of overly complex or costly modelling

In AEMO's submission to the draft determination, it suggested that the scope of the probability assessment should be narrower in the rules to prevent an overly complex solution. AEMO suggested that the draft rule could be read to imply that a statistically robust probabilistic modelling framework is required, which would introduce significant implementation complexity and cost.[30] This was not the policy intent, and to mitigate this risk, the Commission has updated the scope of the assessment. The final rule requires the probability assessment to be based on gas supply and demand scenarios identified by AEMO, which AEMO considers reasonably possible. In addition, the probability assessments may include any other scenarios identified by AEMO based on available information that AEMO considers reasonably possible to occur. In EnergyAustralia's submission to the draft determination, it expressed a concern that the draft rule was silent on whether existing contractual arrangements in the market would be considered by AEMO, and that if those are not considered, the tier classification could overstate the residual risk that requires a market response.[31] The final rule sets out that for the purpose of probability assessments, AEMO must include gas supply and demand scenarios identified by AEMO in the exercise of its functions and that AEMO considers it is reasonably possible may occur. This rule allows AEMO to consider a range of scenarios and does not prevent AEMO from considering contractual arrangements.

3.1.2 The framework includes an assessment of the severity of the supply shortfall

The final rule requires AEMO to assess the severity of a supply shortfall. AEMO's assessment of severity must include the location, magnitude, timing and duration of the supply shortfall and may include other matters that AEMO considers relevant. For example, AEMO may want to consider existing market arrangements, operational actions, emergency powers or other reasonably available responses that are expected to mitigate or avoid the impacts of a supply shortfall.[32]

AEMO may describe 'location' as it considers most appropriate to the circumstances, including by jurisdiction, by region, by grouping of covered gas industry facilities or demand or by any other relevant criteria. It is not intended that AEMO must model location at a highly granular level requiring identification of individual gas users or connection points, or obtain information beyond that already available to it.

3.1.3 Risks or threats will be classified into tiers according to both the assessed probability and severity of forecast supply shortfalls

The final rule requires AEMO to classify risks or threats into tiers, using the outcomes of the probability and severity assessments as the primary basis for classification. AEMO may also take into account any other matters it considers relevant to determine the appropriate classification. The final rule requires AEMO to explain, in its procedures, the process by which risks or threats are classified.[33]

30 AEMO, submission to the draft determination, p. 2.
31 EnergyAustralia, submission to the draft determination, p 3.
32 NGR rule 694B.
33 NGR rule 694B.

The final rule establishes the concept of 'supply shortfall' to connect the framework to PASA and any other AEMO functions that can be used to identify risks or threats. AEMO will assess the probability and severity of a supply shortfall and then classify risks or threats to reliability and supply adequacy into tiers 1, 2 or 3. If the supply shortfall does not meet or exceed the criteria for tier 1, AEMO is not required to publish a risk or threat notice.

The Short Term and Medium Term PASA processes allow AEMO to provide rolling forecasts of demand for covered gases and of supply and transportation facility capacity as distinct outputs. AEMO will also provide information on whether it considers those two factors (demand and supply) are balanced in each day of the outlook period so if a supply shortfall is expected, AEMO will be able to then use this information to conduct probability and severity assessments under the risk or threat signalling framework to inform a risk or threat classification.

The Commission considers that establishing a supply shortfall concept is preferable to attempting to define or catalogue all possible risks within the ECGS. Any such attempt is unlikely to capture the full range of possible risks or threats and may constrain AEMO's ability to respond to emerging risks or threats that fall outside its scope.

The Commission has defined a supply shortfall as:

> A supply shortfall will refer to circumstances that, in AEMO's reasonable opinion, are resulting in or could reasonably be expected to result in the supply of gas:
>
> - being inadequate to meet demand; or
> - cannot be relied upon to meet demand. This includes circumstances where gas supply (including gas storage) may be insufficient to satisfy seasonal demand requirements, or gas industry facilities required to supply demand are capacity-constrained or unavailable.[34]

3.1.4 The framework will comprise three risk or threat tiers

The final rule requires AEMO to classify each identified risk or threat using the classification framework in the risk or threat assessment procedures. The procedures must identify three tiers to be used in the classification of an identified risk or threat.[35]

Before the introduction of this rule, AEMO's ability to communicate changes in the severity of a reliability or supply adequacy risk or threat was constrained by the:

- absence of frequent assessment and classification of those risks or threats
- use of a single notice type and the option to vary that notice on a qualitative basis.

As such, when supply-demand conditions improve as a result of some participants responding to an identified risk or threat, AEMO could not clearly signal a corresponding change in severity or probability of the originally identified risk or threat. As a result, market participants found it difficult to gauge the seriousness of a risk or threat and respond proportionately.

To address this limitation, the risk or threat signalling framework adopts a three-tier structure to classify, and if necessary, escalate or de-escalate a risk or threat as conditions change. Stakeholder feedback to the directions paper supported this tiered structure.[36] The tiers will be

34 NGR rule 694B(7).

35 NGR rule 694A and 694B.

36 Submissions to the directions paper: EUAA p 2, Alinta Energy p 3, Shell Energy p 2, EnergyAustralia p 2, APLNG p 2, APGA p 3, APA p 4, AFMA p 1, Origin pp 1-3. CS Energy p 2, AGL p 1.

arranged in ascending order, reflecting an increasing need for a market-led response, with tier 3 representing the highest level of concern.

As updated assessments of probability and severity change, the classification and applicable tier may be escalated or de-escalated. When this occurs, the existing notice will be varied to reflect the new tier level.

3.1.5 The framework supports but does not constrain AEMO's existing or future functions

The tiers are intended to signal the need for a market-led response but do not, of themselves, require AEMO to exercise its intervention powers or constrain AEMO in the exercise of these powers when they are deemed necessary. Rather, they are intended to guide market participants on desired responses and notify the market of potential intervention if their responses are insufficient. This strikes a balance between guidance and transparency provided by the framework, reflecting stakeholder feedback on the tiers' design and their meaning under the Rules.[37]

In considering the stage 2 ECGS reforms, the framework has been designed to support the ECGS SoLR mechanism, where the establishment of gas reserves and activation of those reserves will be contingent on a tier 3 threat being declared.

Importantly, the framework will not limit AEMO's ability to exercise its existing functions. Where AEMO considers there is insufficient time to assess and classify a risk or threat before exercising a direction or any of AEMO's other functions, it may do so without applying the framework.[38]

3.2 The framework will improve the transparency of risk or threat notices

The final rule strengthens AEMO's risk or threat signalling by enhancing the content of existing notices and introducing a new notice to improve transparency and predictability around potential intervention.

3.2.1 The final rule enhances risk or threat notices

To better communicate the nature and severity of risks or threats, the final rule requires AEMO to include additional information in risk or threat notices. This information is intended to reduce uncertainty and support better-informed decision-making by market participants. The following additional information is now required to be included within the risk or threat notices:

- the applicable risk or threat tier
- the circumstances giving rise to the risk or threat
- the likely onset and duration of the identified risk or threat
- the location of the identified risk or threat
- the outcome of the most recent probability and severity assessments
- any additional matters considered in classifying the risk or threat
- the adequate industry response, if any, that AEMO considers would prevent or mitigate the risk or threat.[39]

In the scenario where a risk or threat notice has not been issued prior to AEMO issuing a direction function, the directions notice must include the above information relating to the relevant threat

37 Submissions to the directions paper: APGA, pp 4-5, AFMA, p 2, Origin, p 2.
38 NGR rule 694A(3).
39 NGR rule 695(2).

(except for the tier, assessment outcomes and classification matters as they would not be available). The final rules use the term 'relevant threat' instead of 'tier 3 threat' to reflect that AEMO has not had time to classify the risk or threat as a tier 3 threat.[40]

3.2.2 The final rule introduces a new notice to improve predictability around AEMO's potential intervention

The final rule requires AEMO to publish a notice indicating the latest practicable time by which an adequate market response is required to mitigate the risk or threat before AEMO may need to intervene. AEMO must publish this notice as soon as reasonably practicable after issuing a tier 3 threat notice.[41]

The notice will state the latest time by which AEMO considers it may need to exercise its direction or the SoLR mechanism if the tier 3 threat is not addressed to an acceptable level. The purpose of the notice is to provide market participants with a clear timeframe to respond and greater certainty that AEMO will not intervene unless circumstances materially change within this timeframe or an emergency arises.

EnergyAustralia, in its submission to the draft determination, asked the AEMC to consider whether the compensation arrangements in relation to AEMO exercising the direction or trading functions needed to be reviewed.[42] The Commission notes the introduction of this framework intends to minimise the need for AEMO to exercise its direction or the SoLR mechanism and does not extend to changing the direction function itself. Furthermore, we note the compensation and dispute resolution frameworks were updated as a result of a rule change process completed by the AEMC in March 2024.[43]

The final rule provides AEMO with discretion to determine the latest practicable time on a case-by-case basis, recognising the appropriate timeframe will depend on the circumstances of the arising risk or threat. However, the matters that AEMO must consider when estimating the latest practicable time, and how it assesses the adequacy of any response from industry, must be included within the risk or threat procedures.

Once published, AEMO will be required to regularly review the estimate and publish any revisions as soon as practicable.

Nothing in this framework will prevent AEMO from exercising its directions or the trading function (as guided by the SoLR mechanism).

If, in AEMO's opinion, there has been no adequate response to a tier 3 threat by the latest practicable time, AEMO will be required to publish a notice to that effect. That notice will include information currently available to AEMO regarding the exercise, or the potential exercise, of AEMO's functions, including the directions or the SoLR mechanism.

We consider that a time-based trigger provides a clear and predictable signal that an industry response is required before AEMO considers further actions

In AEMO's submission to the draft determination, it expressed that estimating a single date and time as the "latest practicable time" for an adequate industry response may not be practical under all scenarios.[44] AEMO noted that a more flexible approach could also involve triggers contingent

40 NGR rule 697(2)(b).
41 NGR rule 696A.
42 EnergyAustralia, submission to the draft determination, p 2.
43 AEMC, Compensation and dispute resolution frameworks, 7 March 2024.
44 AEMO, submission to the draft determination, p. 4-5.

on the occurrence of an event or condition within a broader time window, for example, storage inventories falling below a defined threshold. AEMO proposed that the rules accommodate condition or event-based triggers, which could be supported by information about the relevant assumptions, observed conditions or qualitative assessments using the information available at the time to assist market participants in understanding the trigger and its implications.

The Commission considers that while condition or event-based triggers could provide AEMO with additional flexibility in defining the response window, such triggers could reduce certainty for market participants as to when an intervention is likely to occur. In contrast, a time-based trigger provides a clear and predictable final signal to participants on when a response is required.

In forming the latest practicable time, AEMO will have already taken into account relevant conditions and events through PASA and subsequent probability and severity assessments. The final rule now requires AEMO to publish an explanation of the basis for the estimate, including information about material facts, circumstances and assumptions within the notice. We consider this additional level of accountability will address the concern presented in EnergyAustralia's submission to the draft determination that the latest practicable time may be poorly calibrated for different types of risk.[45]

Importantly, the final rule allows AEMO to revise the latest practicable time, where this is justified by updated information or assessments. This ensures that the signal to participants remains both accurate and responsive to changing conditions.

AEMO will be required to publish and vary the latest practicable time for an adequate industry response notice as soon as reasonably practicable.

In APA's submission to the draft determination, it proposed the latest practicable time for an adequate industry response notice should be published within 10 business days and revised within 5 business days instead of as soon as reasonably practicable.[46]

The Commission considers that adopting fixed timeframes may lead to premature or less reliable estimates from AEMO, particularly in rapidly evolving conditions where flexibility is required to assess system risks. This could undermine the notice's role as a credible market signal.

The Commission also notes that AEMO already has strong incentives to publish and update the notice as early as practicable to facilitate a market response and avoid intervention. The Commission considers that a principles-based requirement better supports accurate and effective signalling, and that fixed timeframes could constrain flexibility without delivering clear benefits.

3.3 How the framework will operate

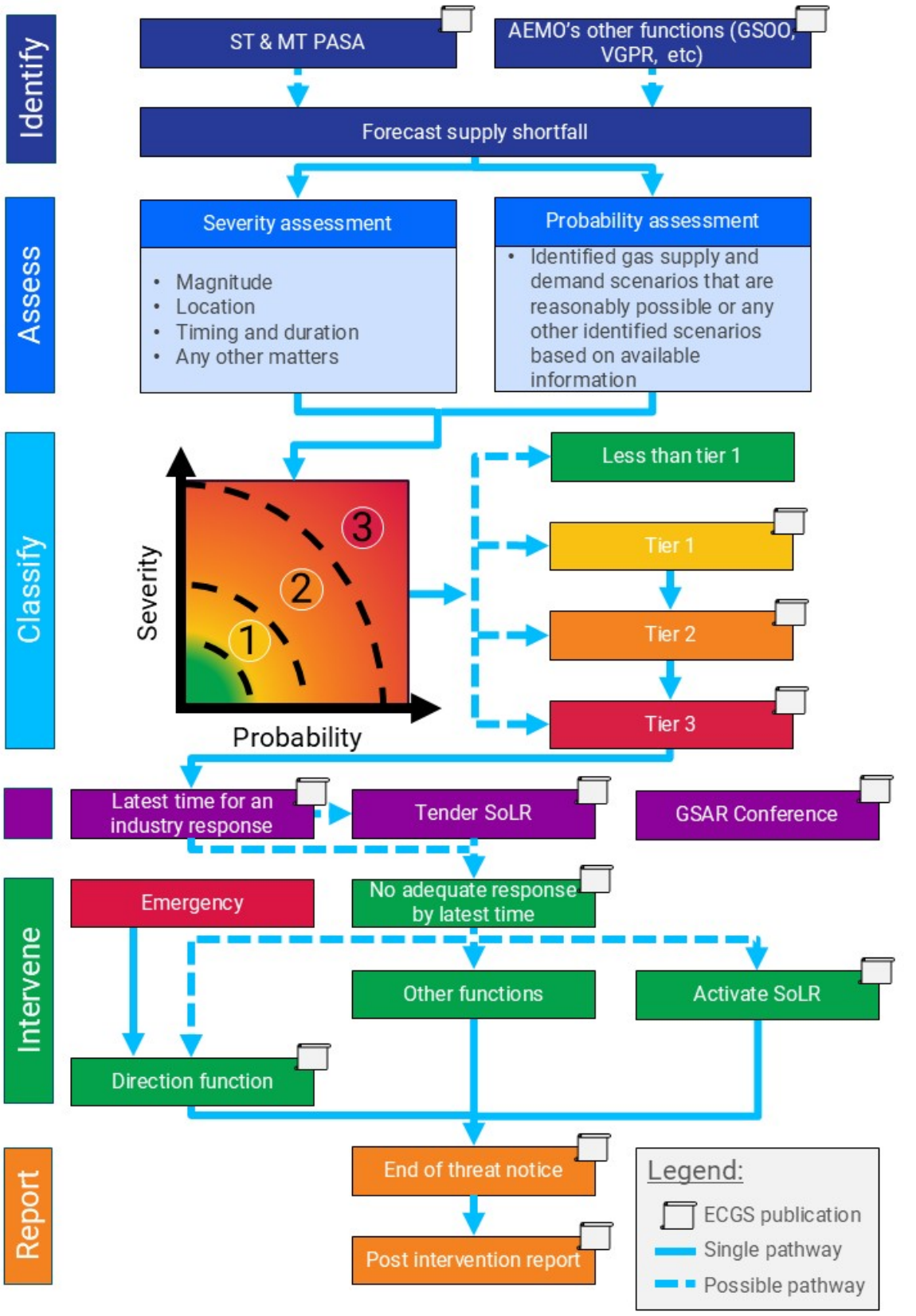
The final rule establishes the foundational requirements for a structured framework for AEMO to assess, classify and communicate risks or threats to the reliability and adequacy of supply in the ECGS. The Commission preferred a principles-based approach for the final rule with the objective of maintaining flexibility so that the specifics of the framework can evolve over time in the ECGS procedures maintained by AEMO. The final rule sets minimum requirements around methodology for assessment and classification while allowing AEMO discretion to develop detailed procedures, methodologies and tier 'thresholds' through consultation with industry.

The following flowchart provides an illustrative outline of the framework.

45 EnergyAustralia, submission to the draft determination, p. 2.

46 APA, submission to the draft determination, pp.5-6.

Figure 3.1: Risk or threat signalling framework flowchart



Source: AEMC

3.3.1 AEMO is required to make procedures governing the assessment and classification of risks or threats in consultation with industry

The final rule requires AEMO to establish procedures for assessing and classifying identified risks or threats (risk or threat assessment procedures). These procedures will:

- establish both a probability assessment and a severity assessment of supply shortfalls
- describe the methodologies used for each assessment
- specify the matters considered in probability and severity assessments
- provide for the matters AEMO may take into account to estimate the latest practicable time for an adequate industry response.[47]

AEMO will also establish in its procedures the three risk or threat tiers, with tier 1 indicating the lowest need for an industry response and tier 3 indicating the highest. The procedures will explain how assessment outcomes are used to classify a risk or threat into a tier and provide for regular assessment and classification of any identified risk or threat. The final rule requires AEMO to perform weekly assessments of risks or threats identified in the 12-month forward period, updating market participants only when appropriate (e.g., a risk moving from tier 2 to tier 3). The frequency of these assessments has been aligned with MT PASA to leverage its outputs.

AEMO will review these procedures at least every four years, following the approved process.

The final rule requires AEMO to take into account certain factors and considerations when conducting the probability and severity assessments, but provides AEMO with the flexibility to consider other factors. The final rule will not set any numerical thresholds that determine how combinations of probability and severity translate into a particular tier. However, AEMO will be required to consult with industry when developing or amending the tier thresholds within the risk or threat procedures. This approach allows thresholds to be calibrated to operational conditions and refined over time while maintaining transparency and accountability.

This flexible approach addresses stakeholder feedback on the directions paper, where some stakeholders expressed concerns about AEMO's discretion to define the specifics of the framework and to intervene in the market based on its own framework's conclusions.[48] Importantly, the Commission expects the framework's methodology to ensure tiered notices will not be issued unnecessarily or too frequently, with higher tiers reserved for circumstances where a stronger or more urgent industry response is required.

We consider the procedures provide adequate consultation opportunities and accountability

In submissions to the draft determination, Alinta Energy, EUAA, and Shell raised concerns that, without independent oversight, AEMO may set risk or threat tiers too conservatively. These stakeholders noted this could distort commercial incentives and crowd out market-led responses, and suggested a role for the GRC in reviewing the settings.[49]

The Commission considers that defining tiers within AEMO's procedures, subject to consultation, is the most appropriate approach. Placing tier definitions in procedures aims to support flexibility by allowing for updates over time without requiring rule changes. This is particularly important in a changing ECGS and reduces the risk of locking in sub-optimal settings. The consultation requirements for procedures also give stakeholders visibility and input into the proposed settings

47 NGR rule 694B.

48 Alinta Energy, submission to the directions paper, p. 3.

49 Submissions to the draft determination: Alinta Energy pp. 2-3, EUAA p. 2, Shell Energy pp. 1-2.

before they are finalised, allowing them to challenge overly conservative thresholds and help ensure they reflect market conditions.

The approach maintains clear accountability by retaining responsibility with AEMO for assessing risks and threats to the ECGS. Introducing a separate review role for the GRC would risk duplicating consultation processes, increasing regulatory burden and slowing updates. The GRC governance arrangements have been designed for the sole purpose of reviewing the market settings and will not exist outside the review periods. As such, the GRC will not have AEMO's continuous operational visibility or resourcing to calibrate the detailed settings.

For these reasons, the Commission considers that allowing AEMO to define tiers in its procedures, with consultation, best supports flexibility, transparency and clear accountability while avoiding unnecessary duplication.

We consider that limiting the risk or threat signalling framework to the operational timeframe will result in less efficient outcomes

In the submissions to the draft determination, APLNG and Origin proposed limiting the framework to operational timeframes, on the basis that AEMO's interventions are intended to address short-term threats and not structural or seasonal shortfalls many months in advance. In particular, Origin was concerned that allowing AEMO the discretion to apply the framework across longer horizons could lead to premature threat declarations, given the inherent uncertainty in long-term supply and demand projections.[50]

We do not consider that limiting the framework in this way would improve outcomes. A key purpose of the framework is to support timely, market-led responses to identified risks and threats by providing participants with sufficient notice of a forecast supply shortfall. Earlier signals through the framework can facilitate these responses and reduce the need for AEMO intervention.

Limiting the framework to operational timeframes would also fail to account for its interaction with mechanisms such as SoLR, which requires sufficient lead time to establish and activate and may therefore necessitate earlier signalling.

We also consider that the requirement for AEMO to publish the latest practicable time for an adequate industry response mitigates the risk of premature intervention. In this notice, AEMO must explain the basis for its estimate, including the material facts, circumstances and assumptions underpinning it. This promotes transparency and accountability, while providing the market with clarity on the timeframe available to respond.

Identified risks or threats forecast within 12 months will be assessed weekly

In its submission to the draft determination, APLNG proposed that risks or threats expected to arise over the 7 to 12-month period should be assessed fortnightly rather than weekly.[51]

The final rule require AEMO to assess and classify identified risks or threats at least weekly.[52] However, this obligation applies only where a risk or threat has been identified. As such, assessments are unlikely to be undertaken weekly over the full 12-month horizon, thereby limiting the overall assessment burden. While reducing the frequency of assessments may lower overall costs, it is likely this will result in only marginal efficiency gains.

50 Submissions to the draft determination: APLNG, p. 2, Origin, p. 2.

51 APLNG, submission to the draft determination, p. 2.

52 NGR rule 694A(2).

Further, maintaining a consistent weekly assessment frequency across the 12-month horizon supports more coherent and comparable reporting over time. This is particularly relevant where multiple risks or threats may interact or evolve concurrently, and a regular cadence assists in identifying and communicating these dynamics to the market.

For these reasons, the Commission does not consider it necessary to adopt APLNG's proposed change.

3.3.2 AEMO will operate the risk or threat signalling framework through a number of steps

The process for risk or threat signalling will start when AEMO identifies a risk or threat to RSA through any of its functions within the ECGS, e.g. updates to information on the Gas Bulletin Board or potential gas supply shortfalls detected from the ECGS PASA processes.[53]

Assessment process

Following the identification of a risk or threat, as a result of MT PASA modelling for example, the final rule requires AEMO to assess the probability and potential severity of the supply shortfall occurring.[54]

For the probability assessment, AEMO will need to take into account identified gas supply and demand scenarios that AEMO considers are reasonably possible to occur within the relevant assessment period, with a prudent allowance for forecasting errors. AEMO may also consider other credible scenarios that are reasonably foreseeable if supported by available information. For the severity assessment, AEMO will need to assess the impacts of the supply shortfall, taking into account its magnitude, location, timing, and duration.

With respect to the timing and frequency of the assessment, the framework will not be limited to a defined time horizon. Under the final rule, AEMO will assess and classify any identified risks or threats, and apply this framework to risks or threats within a 12-month forward period at least weekly. However, the rules will not limit AEMO's ability to apply the framework to longer-term risks or threats identified by AEMO's other functions (e.g., those raised in planning reports such as the GSOO).

Classification of risks or threats into tiers

Using the outputs of the probability and severity assessments, AEMO will classify the identified risk or threat into one of the three tiers. This classification process is intended to be transparent, as assessment outcomes will be disclosed in the risk or threat notices. This process is also intended to be fairly predictable, as thresholds for the different probability and severity ranges will be included in published risk or threat assessment procedures.

While the final rule allows AEMO to consider additional matters in classifying a risk or threat, the outputs of the probability and severity assessment should form the primary basis for the classification and any departures from this should be supported by clear reasons and disclosed in the relevant risk or threat notice.

53 AEMC (2025) ECGS Projected Assessment of System Adequacy.

54 NGR rule 694B.

Publication of risk or threat notices

Following the tier classification, AEMO will publish a risk or threat notice across the ECGS. This notice will include the appropriate tier and supporting information, including the assessment outcomes that have determined the assigned tier, and the likely onset of the risk or threat.[55]

The final rule requires AEMO to publish a risk or threat notice whenever a risk or threat is classified at tier 1 level or above.

In its submission to the draft determination, APLNG was concerned that the rules would require AEMO to publish a risk or threat notice for any identified risk or threat, even if it did not meet the minimum criteria for a tier 1 risk.[56] The intent of the rules is that AEMO only publishes those risks and threats that have been classified to fall into tier 1, tier 2, or tier 3, and not any risk that falls below the tier 1 criteria. However, we agree with APLNG that the draft rule did not adequately reflect this intent. Therefore, the final rule now makes it clear that AEMO is only required to publish a risk or threat notice after classifying the identified risk or threat into tier 1 or above.

3.3.3 The risk or threat signalling framework can be operational from 1 April 2027.

In the rule change request, the proponents proposed that the stage 2 reforms be implemented ahead of winter 2027, on the basis that the winter period presents the highest risk of supply shortfalls in southern jurisdictions. For the updated risk or threat signalling framework to be operational by then and able to support more proactive and efficient management of reliability and supply adequacy risks, the final rule requires AEMO to make new or update existing relevant procedures, guidelines and methodologies by 1 April 2027. With relevant procedures in place, the risk or threat signalling framework will be operational from that date.

AEMO noted that the full effectiveness of the framework depends on PASA modelling and outputs to inform the identification, assessment and communication of emerging supply risks. However, given the substantial system development, integration and testing required to implement PASA, AEMO has advised the Commission that the earliest feasible go-live date, and, therefore, a fully implemented stage 2 package, would be prior to winter 2028. The Commission acknowledges that the full benefits of the risk and threat signalling framework will not be realised until such time that PASA is operational, but supports AEMO in developing the framework by winter 2027 to improve information to the market.

In APLNG's submission to the draft determination, it expressed a concern that a 1 April 2027 commencement date did not provide a realistic implementation pathway for the multiple proposed reforms.[57] The Commission considers that the implementation approach as advised by AEMO and described above, provides for a staged approach that will allow the risk or threat signalling framework to be operational from April 2027, followed by the more complex system development to support PASA, to be ready for winter 2028.

While the Commission considers the risk or threat signalling framework will represent a significant improvement in how emerging risks and threats are identified and communicated, existing stage 1 ECGS powers remain available to AEMO in the interim. While these may be less efficient and informative than the proposed framework, they still provide AEMO with the tools and functions needed to manage risks and threats until the new framework is fully implemented.

55 NGR rule 695.

56 APLNG, submission to the draft determination, pp. 2-3, 7.

57 APLNG, submission to the draft determination, pp 1-2.

4 The Gas Reliability Committee will review the DWGM and STTM market settings

Box 2: The AEMC and the GRC have distinct roles in future reviews of the STTM and DWGM market settings.

The AEMC will:

- establish a GRC for each review, comprising up to two representatives from the AEMC, one from AEMO and a minimum of three and up to nine representatives from the ECGS gas supply chain segments, including large and small users
- develop an operating manual, market settings guidelines and review-specific terms of reference
- determine the market settings informed by the GRC's recommendations.

The GRC will:

- review the market settings in the DWGM and STTM, every four years, with the first review to take place for the period 1 July 2032 to 30 June 2036 (AEMO will still be required to conduct the upcoming scheduled review for the 2028-2032 settings in the STTM)
- comply with the market settings guidelines and have regard to terms of reference issued by the AEMC
- provide a report with recommended market settings to the AEMC.

Consistent with the draft determination, the Commission has introduced a GRC under the NGR to conduct future reviews of the market settings in both the DWGM and STTM. The Commission considers the GRC will enable broad stakeholder representation without requiring onerous legislative changes. The final rule makes explicit the requirement to review both the DWGM and STTM, addressing a gap in the current framework where review of the DWGM is at AEMO's discretion.

Stakeholders who commented on the draft determination supported the establishment of a GRC. They considered this approach will promote consistency, transparency, and a stronger governance framework that better reflects the increasingly integrated nature of the ECGS. Stakeholders also noted that transferring responsibility for the market settings review from AEMO to the AEMC and the GRC will enable broader industry and end user input to the review process.[58]

In submissions to the draft determination, stakeholders requested clarification or adjustments to some of the policy positions and rules. The Commission has addressed these in the sections below, including adjusting the GRC membership representation, clarifying the decision-making model, and introducing clearer consultation requirements.

4.1 The AEMC is required to establish a GRC for each review of the market settings

The final rule requires the AEMC to establish a GRC for each market settings review, to be conducted every four years. The GRC will be constituted for each review, rather than operating as

58 Submissions to draft determination: AGL, pp 2-3, AFMA, p 1, Alinta Energy, p 2.

an ongoing body such as the NEM Reliability Panel. The Commission has revised the GRC membership composition from that outlined in the draft determination to achieve a more balanced representation.

Under the draft rule, the Commission proposed the GRC would consist of:[59]

- up to two AEMC representatives
- a representative from AEMO
- a minimum of one, and up to six, other persons appointed by the AEMC.

In submissions to the draft determination, stakeholders supported this policy but proposed adjustments to ensure more balanced representation.[60] In response, the Commission has retained the representation from market bodies while revising the 'other persons' appointments. Specifically, the number of 'other persons' has been increased from a minimum of one to a minimum of three, and from a maximum of six to a maximum of nine. This change will support broader representation across the ECGS and promote more balanced outcomes in the review of market settings.

The final rule provides that the GRC comprises: [61]

- an AEMC Commissioner or representative as chair
- a second AEMC Commissioner as standing member or acting chair, as needed
- the Chief Executive Officer of AEMO or other person nominated by AEMO
- a minimum of three and a maximum of nine other persons appointed by the AEMC.

The appointment of 'other persons' by the AEMC will be guided by key principles set out in the rules, including:[62]

- the GRC should be broadly representative of persons with direct interests in the STTM or DWGM, including representation by:
  - the type and location of the regulated gas markets
  - classes of registered participants and service providers
  - classes of end users.
- members (other than the AEMO member) must be independent of AEMO
- a requirement to consult on the appointments made.

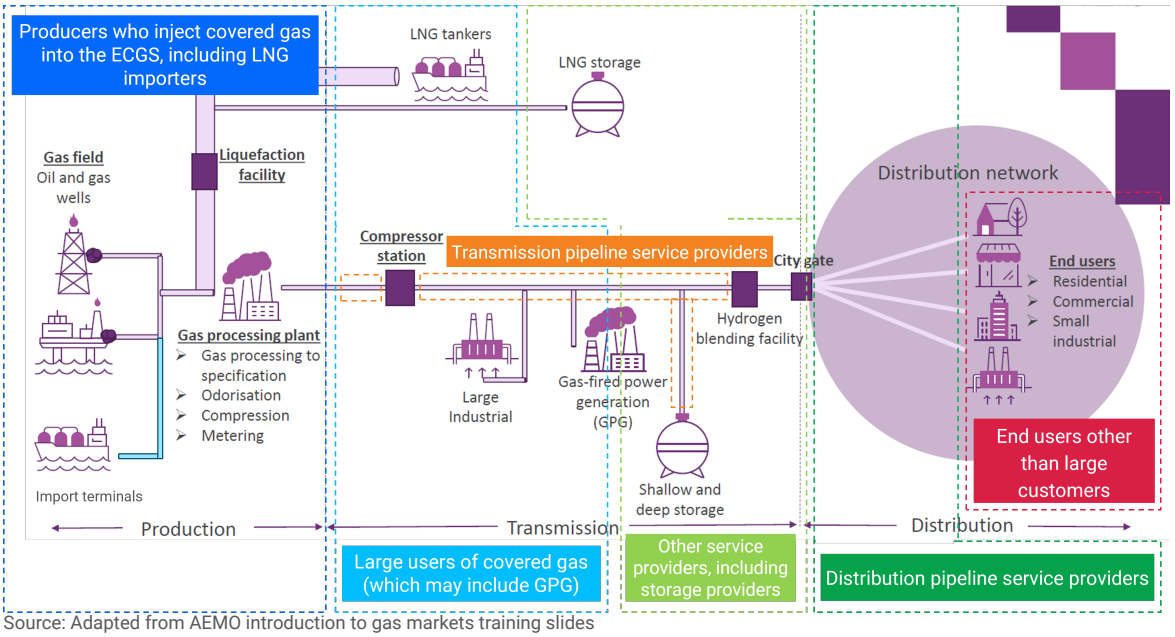
59 Draft rule determination, p 26.

60 Submissions to draft determination: Alinta Energy,p 2, APA, pp 6-7, APLNG, p 5, EUAA, p 2, Origin Energy, pp 2-3.

61 NGR rule 140D.

62 QEUN submission to ERSAA and SoLR draft determination: We note QEUN's concern about the lack of effective communication to small gas customers regarding market risks and potential supply disruptions. We have expanded the number of 'other persons' on the Gas Reliability Committee to a maximum of nine to ensure small customer representation in the GRC membership.

Figure 4.1: Proposed representation across ECGS gas supply chain



Source: Adapted from AEMO introduction to gas markets training slides

The AEMC will appoint members of the GRC for the term of the relevant review. Consistent with the draft determination, the AEMC will be required to consult before making appointments, and could reappoint past members or remove members of the GRC. The AEMC will also maintain and publish the GRC membership list, including any alternates. Members will not be personally liable for an act or omission made in good faith while carrying out GRC functions.

4.2 The AEMC will develop an operating manual, market settings guidelines and review-specific terms of reference for the GRC to follow

To provide a robust governance model, the AEMC must develop an operational manual, guidelines and terms of reference for the GRC.[63]

4.2.1 GRC operating manual

The operating manual will describe administrative aspects to support GRC operations, such as frequency of meetings, communications and budgeting procedures. The AEMC is required to develop and publish the operating manual before the first GRC is established.

Consistent with the draft determination, the AEMC will not be required to consult on the operating manual, given it is administrative in nature.

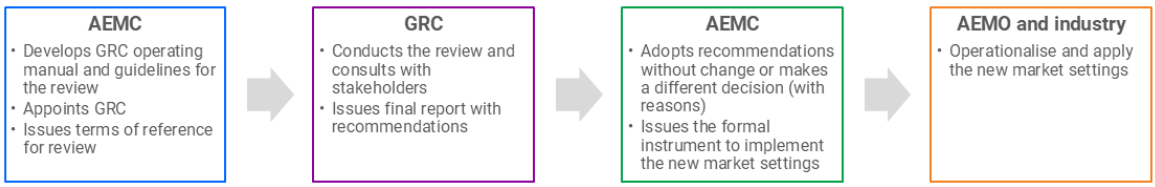
4.2.2 GRC market settings guidelines

The guidelines will set out the principles and assumptions the GRC will use when conducting the market settings reviews. The guidelines will require the GRC to consult when conducting market settings reviews, and will include the consultation procedures to be used by the GRC for that purpose.

63 NGR rule 140E.

The AEMC will need to develop, consult on and publish the guidelines prior to the first GRC market settings review. The AEMC will also be required to consult when updating the guidelines, following the NGR standard consultative procedures.

Figure 4.2: The process for the market settings review



Source: AEMC

4.2.3 Terms of Reference

The Commission will also issue a Terms of Reference (ToR) to initiate each review. The ToR will specify any matters for the GRC to consider when reviewing the market settings in addition to the factors that will be required under the rules. While the operational manual and guidelines are standing documents that can apply across multiple reviews, the ToR will allow for variation from one review to another. This ensures each review can be tailored to specific circumstances in the gas markets at the time, while still operating within the broader framework.

APA and APGA recommended the rules require the AEMC to consult on the ToR.[64] We note that the AEMC will be required to consult during the development of the GRC guidelines and the appointment of GRC members. The GRC will also be required to consult when conducting the review of the settings. Additionally, the ToR are not exclusive. The GRC will be able to consider matters in addition to those specified in the ToR. Finally, the AEMC can choose to seek stakeholder input on the ToR, even without an explicit requirement in the rules.

With these factors in mind, the Commission considered that a required consultation step would not provide sufficient flexibility, and stakeholders will have significant opportunities for input into the GRC's review. Therefore, consistent with the draft determination, the Commission will not be required to consult on the ToR, but could do so at its own discretion.

4.3 The GRC will review all market settings for the DWGM and STTM

The final rules require the GRC to review all the market settings for both the DWGM and STTM. All the market settings are now listed in NGR rule 140C and presented in Table 4.1.

Before the introduction of this rule, AEMO was separately required to set out the administered price cap (APC) and cumulative price threshold for the DWGM in administered pricing procedures.[65] The final rule ensures the GRC is required to review all market settings for both markets, holistically.

64 Submissions to the draft determination, APA, p 7, and APGA p 2.

65 NGR rule 224(1A).

Table 4.1: Market settings to be reviewed by the GRC

STTM	DWGM
Market price cap (MPC)	Value of lost load (VoLL)
Minimum market price (MMP)	Minimum bid price
Administered price cap	Administered price cap
Cumulative price threshold (CPT)	Cumulative price threshold
CPT horizon	Cumulative price period

Consistent with the draft determination, the final rule requires the GRC to complete its four yearly review of the DWGM and STTM settings within six months of the NEM Reliability Standards and Settings Review (RSSR) and provide a final report to the AEMC on the outcome of the review. This will allow the GRC to consider the important links between the NEM market price settings and in the facilitated gas markets.[66] Each review will consider the matters specified in the rules as well as any additional matters specified by the AEMC in the ToR for that review.

The GRC will not be required to review other matters related to the market settings, such as the circumstances when administered pricing periods apply.[67] The Commission does not consider it proportionate to expand the GRC responsibilities beyond the market settings review purpose at this stage. The EUAA proposed the GRC be allowed to initiate reviews to provide advice to the AEMC, outside the formal four yearly review cycle.[68] Both Alinta and Shell suggested the GRC should be responsible for reviewing the tier thresholds for the proposed ECGS risk and threat signalling framework.[69] The intent of the rule change request was to address the perceived conflict of interest arising from AEMO reviewing the STTM market settings. To do this, we developed a fit-for-purpose GRC approach. That is, the GRC will be convened for each review period and is not intended to be a standing body, unlike the NEM Reliability Panel. As such, it would not be appropriate for the GRC to initiate reviews at any time or provide advice outside the market settings review process.

4.3.1 The GRC will consider certain factors when reviewing the market settings levels

The final rule is consistent with the draft and requires the GRC, when reviewing the market settings, to have regard to prices, supply, capacity and operability, and financial risk, similar requirements to those in the NEM. This sets clear, predictable expectations for the GRC's deliberations.

The specific matters the GRC must have regard to are the potential impact of any proposed change to a market setting on:[70]

- **Prices in the relevant regulated gas market and in other regulated gas markets, and prices under gas supply agreements:** The GRC will need to consider the impact of any recommended market settings on gas prices across markets and in bilateral agreements, including cross-impacts between the DWGM and STTM. Requiring the GRC to consider the impact of market

66 Submissions to the draft determination: Alinta Energy, p 2, AGL, pp 2-3, Origin Energy, pp 2-3.

67 For the DWGM, AEMO would still be required to make administered pricing procedures for setting out the process that AEMO applies to declare and end administered price periods. For the STTM, the conditions when an administered price cap state applies would still be set out in the rules as they are today.

68 EUAA submission to the draft determination, p 2.

69 Submissions to the draft determination, Alinta Energy, p 3 and Shell Energy, p 2.

70 NGR rule 140G(4).

settings on gas supply agreements acknowledges the indirect influence of market settings on those contracts.[71]

- **The supply of gas, the capacity of covered gas industry facilities to deliver and store gas, and the operability of covered gas industry facilities:** The Commission agrees with the proponent that reliability and supply adequacy are important factors to consider when reviewing market settings. As these are not defined terms, we have instead specified what matters the GRC must take into account, in the interest of achieving reliability and supply adequacy.
- **Financial risk for registered participants buying or selling gas through the relevant regulated gas market:** Similar to the NEM Reliability Panel, the GRC will be required to consider whether changes to the market settings would introduce any inappropriate financial risks for market participants.

As discussed in the draft determination, the Commission will not include an explicit requirement for the GRC to consider willingness to pay. Instead, the AEMC may include such a metric as part of the ToR for a specific four yearly review. This approach allows the AEMC and the GRC to, at the time of each review, assess the current and future market conditions including, amongst other things, the role of price settings and bilateral contracts, and consider if using a willingness to pay (WTP) metric would be appropriate.

Stakeholder feedback to the draft determination supported this position, and the principles as included in the rules.[72]

In response to the draft determination, one stakeholder recommended the rules also require the GRC "have regard to the interaction between gas an electricity markets, including price settings that inform contracts and derivatives markets".[73] There are a number of existing linkages between the GRC's review of the STTM and DWGM settings and electricity markets. This includes the:

- timing of the GRC's review following the publication of the Reliability Panel's RSSR
- GRC's obligation to consider the prices in gas markets and supply agreements which will capture the impact of prices on gas powered generators.

We do not consider that taking the additional step of directly linking the settings across the two markets is necessary. Doing so may also change the purpose of the market settings, which was not in scope of this rule change.

4.3.2 The GRC will provide recommendations to the AEMC, who will make the final determination of the settings

The Commission has maintained the decision-making model in which the GRC issues a final report to the AEMC. The AEMC is then responsible for determining the market settings that will apply for the review period. The report must include recommendations on the market settings to apply, the reasons for those recommendations and supporting information. The supporting information must include a description of how the GRC conducted the review in accordance with the market settings guidelines and how it considered the ToR provided by the AEMC.

In addition, the report must outline details of all relevant market conditions and circumstances that informed the recommendations, as well as an assessment against the factors in the rules, which are described in section 4.3.1 of this final determination. The AEMC is required to publish the GRC report within 10 days of receiving it.

71 See Appendix B of the directions paper for more detail.
72 Submissions to the draft determination, AGL, p 2. APA, p 7. APGA, p 2. Origin, p 3.
73 Alinta Energy, Submission to the draft determination, p 2.

The AEMC will determine the market settings based on the recommendations provided by GRC in its final report. The Commission may either adopt the recommended market settings, adopt with modifications or determine different market settings, provided it gives reasons for doing so.

During all consultation rounds for this rule change, stakeholders were largely supportive of this decision-making model. However, in response to the draft determination, Shell Energy did not support the AEMC being the final decision-maker determining the settings.[74] We consider it is important that the AEMC retains our statutory role as the rule maker to give effect to any changes recommended by the GRC. AGL supported the AEMC retaining final decision-making responsibility, noting this approach supports accountability and helps ensure the review process remains anchored in the NGO and broader regulatory principles, while still drawing on the expertise and interests of industry and consumer groups.[75] The Commission considers that the approach will ensure the AEMC can leverage stakeholder and industry expertise in the gas markets as part of the review. The AEMC will also be able to consider broader policy, technical and economic considerations prior to issuing the instrument. We note this approach is equivalent to that in the NEM where any recommendations by the Reliability Panel are implemented through an AEMC rule change request process.

To further ensure a robust governance approach, the final rule requires the AEMC to consult before making settings that differ from those recommended by the GRC.

The draft determination had set out that the AEMC must consult as it considers appropriate when making the market settings instrument. Origin Energy's submission recommended that the AEMC should be required to consult if making settings different from those recommended by the GRC.[76] We agree this supports transparency and good regulatory practice, and have adopted this change.

The updated market settings will take effect through an instrument to be made by the AEMC. Any new market settings will be published in the South Australian Government Gazette within an instrument called the market settings instrument. The market settings instrument will specify the market settings determined by the AEMC and the period for which the market settings apply. The settings will apply from 1 July in the year commencing 2 years after the year in which the GRC's report is published (For example, if the review is completed on 2030, the settings would apply from 1 July 2032).

There is precedent for market changes taking effect through an AEMC-made instrument. For example, the indexed values of CPT and MPC in the NEM are set in this way. Under NER clauses 3.14.1(d) and 3.9.4, the AEMC must calculate the consumer price index (CPI) adjustment and publish the updated CPT and MPC for the NEM by 28 February each year to apply from 1 July of that year.

4.4 AEMO will conduct the upcoming scheduled review

Consistent with the draft determination, the final rule does not change AEMO's existing obligation to review the STTM market settings by 30 October 2026.

The Commission has determined that establishing a GRC is the preferable option for future reviews of market settings. However, the timeframes of this rule change and the existing cycle of market settings for the 2028-2032 period mean it is not feasible for a GRC to be established to conduct the review for that period.

74 Shell Energy submission to draft determination, p 2.
75 AGL submission to draft determination, pp 2-3.
76 Origin, submission to the draft determination, p 3.

In Chapter 4 of the draft determination, we set out four options the Commission considered for the upcoming review, noting that each had pros and cons. The Commission determined that AEMO conducting the review as scheduled was the most appropriate option, noting:

- This would avoid truncating either or both the initial set-up of the GRC and the GRC's first review of the market settings.
- The GRC's first review would be done following the implementation of other upcoming (AEMC and Commonwealth) changes to the gas market.

Industry submissions supported AEMO carrying out this year's review.[77] AEMO did not agree that it should be required to carry out this year's review in its submission to the draft determination. Specifically, it raised concerns that an AEMO review would not be using the process that is 'the preferred long-term model,' and could create inconsistencies with the new framework.[78] As noted previously, we agree that the GRC is the ideal long-term framework. However, we do not consider that AEMO conducting this year's review would create inconsistencies for future reviews. We also consider that, as it has conducted all previous reviews, it has the expertise and experience to carry out the review in a short time frame. We note that AEMO could make use of existing working groups, such as the gas wholesale and retail consultative forums, to seek stakeholder engagement for this review and align with the intent of the future GRC, to draw on diverse views from relevant representatives.

The Commission did consider, in line with AEMO's suggestion, setting up a GRC for this review. However, this would require extending the timeframe for the review. This would then reduce the time that the market would have to adjust in the event the GRC recommended any changes to the market price settings. Industry submissions confirmed that 21 months is an appropriate timeline for implementation between the determination of the new market settings and when they are in place. This time allows for activities such as risk tests, portfolio assessment, contracting activity, and IT changes.[79]

AEMO fulfilling its existing rules obligation will ensure the STTM market settings are reviewed in a timely fashion while also allowing the initial GRC review to be conducted on an appropriate timeline. This approach also retains sufficient time for the market to adjust to any revised settings. These outcomes align with our assessment criteria for implementation considerations and the principles of good regulatory practice.

77 Submissions to the draft determination, Alinta Energy, p 2. APA, p 7.

78 AEMO submission to the draft determination, p 4.

79 Submissions to the draft determination, Alinta Energy, p 2. APA, p 7. Origin, p 3.

5 We are improving the GSOO and VGPR

Box 3: The final rule introduces the following requirements for AEMO:

GSAA forecasting methodology

- consult on and publish the GSAA forecasting methodology
- develop the methodology in accordance with the following principles:
  - ensure consistency with industry forecasting best practices
  - publish the inputs, assumptions and scenarios used in the forecasting.

Information reporting requirements

- assess and report identified risks of supply shortfalls in gas supply adequacy assessments for both the GSOO and VGPR
- provide a breakdown of the gas supply adequacy assessments by region in the GSOO, where reasonably practicable.

Consistent with the draft determination, the final rule requires AEMO to consult on and publish its GSAA forecasting methodology.[80] It also strengthens information provision in the GSOO and VGPR by requiring AEMO to assess and report identified risks of supply shortfalls and provide a breakdown of the gas supply adequacy assessments by region.[81]

Stakeholders broadly supported the requirement for AEMO to consult on and publish its GSAA forecasting methodology.[82] In light of the proposed principles, rather than requiring the AER to develop best practice guidelines, stakeholders requested that we provide further clarification on the principles to avoid unintended consequences.[83]

In response, the Commission has simplified and streamlined the principles to ensure they better achieve the policy intent of promoting transparency and increasing stakeholder confidence in AEMO's forecasting methodology.

Stakeholders also broadly supported the proposed changes to the GSOO and VGPR regarding AEMO's additional reporting requirements. Some stakeholders raised concerns about specific elements. In particular, AEMO highlighted the complexity of assessing probabilistic likelihoods of supply shortfalls in the longer timeframes, given data limitations and inherent forecasting uncertainty.[84] While some stakeholders considered that probabilistic assessments could provide valuable information to support planning and investment decisions, they emphasised that AEMO should rely on existing information rather than seeking additional information from market participants.[85] In response, the Commission refined the additional information provision requirements to ensure they are practical to implement while supporting efficient planning and investment decisions. The final rule requires AEMO to:[86]

80 NGR rule 135KAA (4).
81 NGR rules 135KB(1A)(e) and 323(3)(k).
82 Submissions to draft determination: AGL p 2, APGA p 3, Origin p 3.
83 Submissions to draft determination: APLNG, p 3, Alinta, p 2, AEMO, pp 3-4.
84 AEMO submission to draft determination, p 2.
85 APLNG submission to draft determination, pp 3-4.
86 NGR rules 135KB(1A)(d-e) and 323(3A).

- report identified risks of supply shortfalls, without assessing probabilistic likelihoods of occurrence
- provide region specific gas supply adequacy assessments.

We note that currently AEMO provides gas supply assessments on a north–south split in the GSOO. The final rules allow AEMO to provide these assessments on a more granular level where practicable.

The final rule does not require AEMO to undertake a new assessment of system resilience risks.

5.1 AEMO is required to consult on and publish its gas supply adequacy assessment methodology

The final rule requires AEMO to consult on and publish its GSAA forecasting methodology.[87]

The Commission considers this arrangement to be proportionate to the proponents' concerns regarding the importance of using inputs and assumptions that are transparent, credible and robust.[88] The approach in the final rule will improve transparency and stakeholder confidence in AEMO's forecasting, while avoiding the unnecessary administrative burden of having the AER prepare the methodology. Stakeholders supported this approach.[89]

Alinta Energy raised concerns that allowing AEMO to develop the forecasting methodology in the absence of AER-led best practice guidelines may not provide sufficient opportunities for meaningful stakeholder input.[90] The Commission considers the final rule appropriately addresses this concern. The GSAA forecasting methodology is to be treated as a procedure under the NGR and will therefore be developed in accordance with the approved process consultation framework. Under the approved process, AEMO is required prior to consultation, to engage with the relevant forums and may nominate additional specialist working groups to support the development of a procedure. These forums provide a structured platform for stakeholder engagement and input, prior to and in addition to the standard consultative requirements.[91]

5.2 The final rule sets out principles to guide AEMO in making or amending the gas supply adequacy assessment methodology

To further address stakeholder concerns, the final rule includes refined principles to guide AEMO when developing its forecasting methodology.[92]

In the draft determination, we proposed three principles, similar to the NER, to guide AEMO. These principles are :

- forecasts are as accurate as possible, based on comprehensive information, and prepared in an unbiased manner
- the key inputs, assumptions and methodologies underpinning forecasts are disclosed
- stakeholders have, as far as practicable, opportunities to engage through effective consultation and access to relevant information.

87 NGR rule 135KAA(4).
88 Rule change request, pg 44
89 Submissions to draft determination, AGL p 3 and APGA p 3.
90 Alinta Energy submission to draft determination, p 2.
91 See approved process.
92 NGR rule 135KAA.

Several stakeholders raised concerns with the proposed principles. The Commission has drawn on existing NGL and NGR provisions and refined the principles proposed in the draft determination to address stakeholder concerns and continue to apply the original policy intent of promoting transparency and strengthening stakeholder confidence in AEMO's forecasting processes. The refined principles are outlined below.

The Commission has streamlined and revised the principles to address concerns raised by AEMO and other stakeholders, while maintaining the original policy intent.

AEMO raised concerns that the principle requiring stakeholder engagement was duplicative, as the GSAA forecasting methodology is already subject to consultation requirements equivalent to a category of Procedures under the NGR.[93] The Commission agrees that the proposed wording of the principle may have created unnecessary duplication and could have implied that existing consultation processes are insufficient. In response, the final rule distinguishes between AEMO consulting when developing a GSAA methodology and a provision about consulting on the inputs, assumptions and scenarios used in the forecast.

AEMO also pointed out that requirements for forecasts to be 'as accurate as possible' and 'prepared in an unbiased fashion' should be amended, as it considers them overly prescriptive and could lead to unintended consequences.[94] In response, the Commission has adopted a more outcomes-focused approach to framing the principles. This approach emphasises the application of industry forecasting best practice, including that AEMO publish the inputs, scenarios and assumptions used in the forecast. It also allows AEMO to have regard to consultation undertaken in performing its other statutory functions when determining inputs, assumptions and scenarios to be used in forecasting.

APLNG proposed revisions to the draft principles and suggested additional principles.[95] In particular, APLNG proposed limiting forecasts to existing information sources and requiring the protection of confidential or commercially sensitive information. Information gathering functions and the protection of confidentiality are already governed by the NGL and NGR provisions, and the policy intent is not to expand these powers.[96] The Commission considers these arrangements are sufficient. However, to address APLNG's concerns, the final rule notes that nothing requires AEMO to consult on or publish protected information contrary to the NGL.[97]

APLNG also proposed a principle requiring consideration of interdependencies between the gas and electricity sectors. The Commission does not consider this necessary, as gas powered generation (GPG) demands are already addressed in the GSOO and VGPR.[98] In addition, the PASA rule change acknowledges GPG consumption of gas as relevant information for determining PASA, reinforcing the connections between the gas and electricity sectors.[99]

Finally, APLNG suggested that the principles should be strengthened to make the GSAA forecasting methodology replicable across years and developed at least cost. The Commission considers the final rule, which treats the methodology as a procedure, addresses these

93 AEMO submission to draft determination, pp 4.
94 AEMO submission to draft determination, pp 3-4.
95 APLNG submission to the draft determination, pp 3-4.
96 See e.g. NGLs 91F.
97 NGR rule 135KAA(5).
98 See GSOO 2026, chapter 2, Gas consumption and demand forecasts.
99 ECGS Projected Assessment of System Adequacy.

concerns.[100] AEMO must assess proposed procedures under the approved process.[101] The approved process requires the preparation of an impact and implementation report and stakeholder engagement through AEMO forums, prior to the consultation requirements for the GSAA forecasting methodology.[102] This provides an appropriate safeguard to ensure the methodology remains consistent, proportionate and fit-for-purpose over time.

The final principles are as follows:[103]

> 1. To the extent possible, the gas supply adequacy assessment methodology must be consistent with best practice, which for this purpose refers to the standards, methods and techniques that could reasonably be expected to be adopted by an entity engaged in forecasting in the gas sector within or outside Australia, under comparable conditions and for comparable purposes.
>
> 2. The gas supply adequacy assessment methodology:
>
> > may provide for AEMO to have regard to consultation undertaken in performing its other statutory functions when determining the inputs, assumptions and scenarios to be used for forecasting; and
> >
> > must provide for publication of the final inputs, assumptions, and scenarios used.
>
> 3. Nothing in this rule requires AEMO to consult on or publish protected information contrary to Subdivision 2 of Division 7 of Part 6 of Chapter 2 of the *NGL*.

5.3 AEMO is required to report identified risks of supply shortfalls

In the draft determination, we proposed including information on the likelihood of supply shortfalls in the GSOO and VGPR to support market participants' planning and investment decisions. AEMO raised concerns that modelling the probabilistic likelihoods of supply shortfalls over the longer timeframes covered by the GSOO and VGPR outlooks would not be practical. It noted that the available data is not statistically sufficient to support probabilistic conclusions about future weather-driven outcomes, structural changes in demand and the increasing influence of climate change.[104]

More broadly, most stakeholders emphasised that any new assessments should rely on data already available to AEMO, rather than requiring additional information disclosures.[105]

In response, the Commission has refined the requirements to ensure they are practical and proportionate. The final rule requires AEMO to assess and report identified risks of supply shortfalls in its gas supply adequacy assessments in the GSOO and VGPR, without requiring the inclusion of the likelihood of occurrence. This makes explicit AEMO's existing practice to identify supply adequacy risks where they are forecast to arise.

The Commission notes that AEMO is already required under the NGL and NGR to assess medium- to long-term gas supply and pipeline capacity to meet forecast demand, and has included gas supply adequacy assessments in both the GSOO and VGPR. Consistent with the decision not to

100 NGR rule 135KAA (1) requires AEMO to make, publish and may amend GSAA methodology in accordance with Part 15B as if the methodology were a category of Procedures.

101 NGR rule 135EC.

102 See Approved process

103 NGR rule 135KAA.

104 AEMO submission to draft determination, p 3.

105 Submissions to draft determination, APGA p 3. and APLNG p 3.

introduce a reliability standard, we consider it valuable for AEMO to continue producing gas supply adequacy assessments and to report any identified risks of supply shortfalls to support efficient planning and investment decisions.

5.4 AEMO is required to assess and report regional supply shortfalls

Consistent with the draft determination, the final rule requires AEMO, where reasonably practicable, to include a regional breakdown of gas supply adequacy assessments in the GSOO to help identify location-specific and emerging risks. The Commission considers that this approach will support more targeted planning and investment decisions by market participants.

Stakeholders broadly supported further disaggregation of reliability forecasts beyond the current north–south split, noting that greater granularity would better signal the location of emerging risks and support more informed commercial responses. However, some stakeholders, including Shell Energy, proposed that the rules specify a minimum level of regional granularity.[106] APLNG, on the other hand, raised concerns that more prescriptive regional requirements could risk revealing confidential or commercially sensitive information or potentially exposing market participants.[107]

The Commission considers that a principles-based approach is appropriate. Prescribing specific regional requirements in the rules could reduce flexibility and increase the risk of disclosing sensitive market information. Instead, allowing AEMO to define regions through its procedures provides flexibility to adopt meaningful regional groupings while managing confidentiality concerns. APA commented that AEMO should carefully consider any disaggregation into granular regions to ensure confidential information is protected.[108] Jemena also noted that, in defining regions, AEMO should ensure that increased granularity improves the clarity of market signals without imposing unnecessary administrative burden on industry.[109]

AEMO's specification of regions will be incorporated into the ECGS procedures and AEMO is required to consult with the relevant consultative forum and may nominate or establish additional specialist working groups for the purpose of developing the regions. This will provide a platform for stakeholder engagement on the regions prior to and in addition to the standard consultative requirements.

The Commission also notes that the current GSOO focuses on a north–south split, primarily to highlight transmission capacity and interconnection constraints as required in the NGR.[110] The final rule extends this by requiring regional assessment, where practicable.[111] However, the Commission does not propose to prescribe regional boundaries in the rules, recognising that, in some cases, alignment with jurisdictional boundaries may not be appropriate due to confidentiality constraints.

Consistent with the draft determination, this requirement will not apply to the VGPR. This reflects that the VGPR is already specific to Victoria, and AEMO is required to undertake forecasts at a more granular level, including by system withdrawal zones.

106 Shell Energy submission to the draft determination, p 2.
107 APLNG submission to the draft determination, p 3.
108 APA submission to the draft determination, p 7.
109 Jemena submission to draft determination, p 2.
110 NGR 135KB(e).
111 NGR rules 135KB(1A)(d) and 323(3A).

5.5 AEMO is not required to conduct a system resilience assessment

Consistent with the draft determination, the final rule does not introduce an explicit requirement to assess system resilience. AGL supported this position, noting that it represents a more targeted and proportionate approach.[112] Jemena opposed the Commission's position and considered that an explicit requirement to assess system resilience should be introduced into the NGR, although it noted that such an assessment should rely on information already available to AEMO.[113]

The rule change request argued that the GSOO and VGPR do not currently include an assessment of credible risks to system resilience, defined as the ability of the ECGS to limit the extent, severity and duration of reliability or supply adequacy events. The proponents submitted that this assessment would improve market participants' understanding of risks arising from unplanned supply disruptions and inform decisions on storage levels.

Consistent with the draft determination, the Commission considers that the existing framework under NGR rule 135KB(1)(i) already requires AEMO to assess and report factors affecting gas supply, pipelines and storage facilities, including planned and unplanned outages and unaccounted-for gas. This requirement captures elements of system performance consistent with aspects of 'system resilience' as described in the rule change request.

The Commission also notes that AEMO can already undertake a form of system resilience assessment within the existing GSOO framework. Having regard to stakeholder concerns about potential information provision burdens and the risk of distorting efficient investment signals, the Commission has decided not to introduce an explicit requirement to assess system resilience in the final rule, as this would extend beyond the scope of the rule change and would require a separate, more detailed proposal.

112 AGL submission to draft determination, p 3.

113 Jemena submission to the draft determination, p 2.

A Rule making process

A standard rule change request includes the following stages:

- a proponent submits a rule change request
- the Commission initiates the rule change process by publishing a consultation paper and seeking stakeholder feedback
- stakeholders lodge submissions on the consultation paper and engage through other channels to make their views known to the AEMC project team
- the Commission publishes a draft determination and draft rule (if relevant)
  - stakeholders lodge submissions on the draft determination and engage through other channels to make their views known to the AEMC project team
- the Commission publishes a final determination and final rule (if relevant).

For this rule change, due to the rule change request raising issues of sufficient complexity or difficulty, the Commission extended the timeframes for the draft and final determinations. The extended timeframes allowed the Commission to publish a directions paper testing proposed policy positions with stakeholders. Stakeholder submissions to the directions paper and draft determination informed the Commission's further analysis and this final determination.

You can find more information on the rule change process on our website.[114]

A.1 The proponents proposed a rule to complement stage 1 of the reliability and supply adequacy framework

The proponents suggested that the additional measures to complement stage 1 of the RSA framework are required because, without those elements:

- there is currently no robust basis for determining appropriate reliability trade-offs
- current market settings may be providing inefficient investment signals
- the GSOO and VGPR may fail to provide appropriate and consistent planning and investment signals
- current risk or threat notices may not provide a clear and objective indication of the nature and severity of identified risks or threats
- AEMO has insufficient guidance on how and when to exercise its RSA functions.

A.2 The proposal addressed growing risks to reliability and supply adequacy in the ECGS

The proponents consider that changes are needed to address the risk that, under the current arrangements (stage 1), market participants, AEMO and policy makers may make inefficient decisions about how to respond to reliability and supply adequacy risks or threats in the ECGS over the short- and long-term. The request formed part of a broader package of reforms to implement 'stage 2' of the RSA framework.

114 See our website for more information on the rule change process: https://www.aemc.gov.au/our-work/changing-energy-rules

A.3 It proposed to do so by introducing a reliability standard and other changes

The rule change request proposed complementing stage 1 of the RSA framework by introducing a reliability standard for the ECGS that reflects the value gas customers place on reliability (VGCR). This would allow gas market participants and AEMO to make better-informed decisions about the trade-offs between reliability and supply interruption costs. The request proposed:

- an objective risk or threat signalling mechanism to communicate the nature and potential severity of threats to reliability and supply adequacy
- market reliability settings informed by the reliability standard such that they provide the appropriate incentives to market participants
- improvements to current forecasting tools by including a reliability forecast and an assessment of credible risks to system resilience in AEMO's GSOO and VGPR
- new governance arrangements to support the proposed changes, with responsibilities for the AEMC, AEMO and the Australian Energy Regulator (AER).

A.4 The process to date

On 20 March 2025, the Commission published a notice advising of the initiation of the rule making process and consultation in respect of the rule change request.[115] The Commission also published a consultation paper identifying specific issues for consultation. The Commission received 17 submissions on the consultation paper. Based on those submissions and further analysis, on 28 August 2025, the Commission published a directions paper to test proposed policy positions with stakeholders. The Commission received 13 submissions, which were considered for the purpose of the draft determination.

On 26 February 2026, the Commission published a draft rule determination including a draft rule. The Commission received 13 submissions on the draft rule determination. Issues raised in submissions are discussed and responded to throughout this final determination.

115 This notice was published under section 303 of the NGL.

B Legal requirements to make a rule

This appendix sets out the relevant legal requirements under the NGL for the Commission to make a final rule determination.

B.1 Final rule determination and final rule

In accordance with section 311 of the NGL, the Commission has made this final rule determination for a more preferable final rule in relation to the rule proposed by the proponents.

The Commission's reasons for making this final rule determination are set out in chapter 22.

A copy of the more preferable final rule is attached to and published with this final determination. Its key features are described in chapter 33, chapter 44 and chapter 55.

B.2 Power to make the rule

The Commission is satisfied that the more preferable final rule falls within the subject matter about which the Commission may make rules.

The more preferable final rule falls within section 74 of the NGL as it relates to regulating the collection, use, disclosure, copying, recording, management and publication of information in relation to the covered gas industry, the reliability or adequacy of the supply of covered gas within the east coast gas system and AEMO's east coast gas system reliability and supply adequacy functions.

B.3 Commission's considerations

In assessing the rule change request the Commission considered:

- its powers under the NGL to make the final rule
- the rule change request
- submissions received during first round consultation
- the Commission's analysis as to the ways in which the final rule will or is likely to contribute to the achievement of the NGO
- submissions received during second round consultations
- the application of the final rule to Western Australia.

There is no relevant Ministerial Council on Energy (MCE) statement of policy principles for this rule change request.[116]

The Commission may only make a rule that has effect with respect to an adoptive jurisdiction (relevantly, Victoria) if satisfied that the proposed rule is compatible with the proper performance of AEMO's declared system functions in that jurisdiction.[117] The more preferable final rule is compatible with AEMO's declared system functions. The reasons are set out in chapter 2.

The Commission may only make a rule that affects the allocation of powers, functions and duties between AEMO and a declared service provider for a declared transmission system if AEMO consents to the making of the rule or the rule is requested by the Minister of the relevant

116 Under s 73 of the NGL the AEMC must have regard to any relevant MCE statement of policy principles in making a rule. The MCE is referenced in the AEMC's governing legislation and is a legally enduring body comprising the Federal, State and Territory Ministers responsible for energy.

117 Section 295(4) of the NGL.

jurisdiction. The rule was requested by the Minister of the relevant jurisdiction. See chapter 2 for more details.

B.4 Making gas rules in Western Australia

Under the *National Gas Access (WA) Act 2009* (WA Gas Act), a modified version of the NGL was adopted, known as the National Gas Access (Western Australia) Law (WA Gas Law). Under the WA Gas Law, the NGR applying in Western Australia is version 1 of the NGR, as amended by rules made by the South Australian Minister for Energy[118] and rules made by the AEMC in accordance with its rule making powers under section 74 and 313 of the WA Gas Law.[119]

The final rule falls within the subject matters about which the Commission may make rules under the WA Gas Act.[120] as it relates to regulating the collection, use, disclosure, copying, recording, management and publication of information in relation to natural gas services.

However, the final rule amends Parts of the NGR that do not apply in the Western Australian version of the NGR.

Accordingly, the final rule will not apply in Western Australia.

B.5 Civil penalty provisions and conduct provisions

The Commission cannot create new civil penalty provisions or conduct provisions. However, it may recommend to the energy ministers' that new or existing provisions of the NGR be classified as civil penalty provisions or conduct provisions.

The more preferable final rule does not amend any clauses that are currently classified as civil penalty provisions or conduct provisions under the National Gas (South Australia) Regulations, *National Gas (Victoria) (Declared System Provisions) Regulation or National Gas Access (WA) (Part 3) Regulations 2009*.

The Commission does not propose to recommend to energy ministers' that any of the amendments made by the more preferable final rule be classified as civil penalty provisions or conduct provisions.

118 The Statutes Amendment (National Energy Laws) (Binding Rate of Return Instrument) Act 2018 and the National Gas (South Australia (Pipelines Access—Arbitration) Amendment Act 2017.

119 See our website for further information at https://www.aemc.gov.au/regulation/energy-rules/national-gas-rules/western-australia.

120 Section 74 and Schedule 1 of the WA Gas Law specify the subject matter for rules that can be made by the AEMC in Western Australia.

C Changes from draft to final

This Appendix provides a quick reference for stakeholders of the policy changes between the draft and final rules, set out by area of the rule. These tables do not cover minor drafting amendments that were only for clarity, and they do not set out an overview of the rule itself.

Further detail on these changes can be found in chapter 3, chapter 4 and chapter 5.

Table C.1: Changes from draft to final - Risk or threat signalling

Area	Draft rule	Final rule
Locations of supply shortfalls	The draft rule did not clarify the intended meaning of location.	681A(3) and 681B have been amended to allow AEMO to select an approach to describe location and determine, review and amend regions within the ECGS respectively.
Classification of risks of threats	The draft rule did not provide any guidance on how AEMO should weigh different considerations when classifying a risk or threat.	694B(2)(g)(i) has been amended to clarify that the outcomes of the probability assessment and the severity assessment must be the primary basis for the classification of a risk or threat.
Probability assessments	Under the draft rule AEMO would have been required to consider actual and forecast ECGS conditions and may have considered any other matters AEMO considers relevant.	694B(3)(a) has been revised to constrain AEMO to identified gas supply and demand scenarios that it considers are reasonably possible to occur within the assessment period. 694B(3)(b) has been revised to constrain AEMO to other scenarios identified by AEMO based on available information that it considers are reasonably possible to occur within the assessment period.
The latest practicable time notice	The draft rule did not require AEMO to explain the basis for its estimate.	696A(1)(b) has been amended to require AEMO to include an explanation for the basis of the estimate, including information about material facts, circumstances and assumptions; and 696A(2)(b) If the estimate changes, AEMO must provide an explanation of the basis for the change.

Table C.2: Changes from draft to final - Gas Reliability Committee and Market Settings Review

Area	Draft rule	Final rule
GRC composition	The GRC would comprise:- one or two AEMC representatives- a representative from AEMO- a minimum of one, and up to six, other persons appointed by the AEMC.	140D now sets out:The GRC will comprise the same representation from the AEMC and AEMO as proposed in the draft.There will now be a minimum of three and a maximum of nine other persons.
AEMC consultation on market settings instrument	The AEMC would be required to consult as it considered appropriate when making the market settings instrument.	140J now requires the AEMC to consult when making the instrument if differing from the GRC's recommended market settings levels.

Table C.3: Changes from draft to final - GSOO and VGPR

Area	Draft rule	Final rule
GSAA methodology	The GSAA methodology would have regard to certain principles, including accuracy, transparency and opportunity for stakeholder consultation.	135KAA has been revised to instead: Require that the methodology is consistent with best practice. Clarify the consultation and publication principles.
GSAA identified shortfalls	AEMO would have been required to include an assessment of the likelihood of a supply shortfall identified in the GSAA occurring.	135KB(1A) has been amended to not include a likelihood requirement in the GSOO. 323(3)(k) has been amended to not include a likelihood requirement in VGPR.

D Low reserve and lack of reserve conditions in the NEM

The ECGS *Enhancing reliability and supply adequacy arrangements* rule change request draws, in part, on the reserve conditions mechanism used for communicating reliability threats in the NEM. When considering the rule change request, we categorised the proposed tools across two time horizons: the short-term operational timeframe and the longer-term investment timeframe. This allowed us to develop an understanding of if and how any NEM frameworks could be applied in the ECGS to address the proponents' concerns.

This appendix outlines the short-term operational framework, including the purpose of declarations of conditions, the low reserve condition (LRC) and lack of reserve (LOR) mechanisms, and the relevant governance arrangements.

D.1 How reliability threats are communicated in the NEM

In the NEM, reliability threats are communicated through the LRC and LOR mechanisms. LRC notices are issued by AEMO when it considers that the balance of generation capacity and demand over the assessed period does not meet the reliability standard, as set out in the *Reliability Standard Implementation Guidelines (RSIG)*. LRCs are identified in the medium term using the Medium Term Projected Assessment of System Adequacy (MT PASA).[121] An LRC is an early warning that the system may not have enough capacity in the future to meet the reliability standard. LRC declarations are intended to provide early warning to market participants and signal the potential need for changes in market behaviour or operational intervention.[122]

On the other hand, LOR notices are issued when AEMO determines, in accordance with the *Reserve Level Declaration Guidelines*, that the probability of involuntary load shedding is, or is forecast to be, greater than remote. These conditions are typically identified through the Short-Term PASA (ST PASA), but LOR notices may also be issued for actual system conditions, not just forecasts.[123]

The purpose of LOR declarations is to signal tightening reserve conditions and prompt market responses to avoid capacity shortfalls under a range of potential contingency scenarios.

Clause 4.8.4 of the NER:

> 1 Under NER 4.8.4, AEMO may declare the following conditions in relation to a period of time, either present or future:
>
> 2 Low reserve condition – when AEMO considers that the balance of generation capacity and demand for the period being assessed does not meet the reliability standard as assessed in accordance with the reliability standard implementation guidelines.
>
> *Lack of reserve (LOR)* condition – when AEMO determines, in accordance with the reserve level declaration guidelines, that the probability of load shedding (other than the reduction or *disconnection* of interruptible load) is, or is forecast to be, more than remote.

121 AEMO, Reliability Standard Implementation Guidelines.
122 AEMO, Reliability Standard Implementation Guidelines.
123 AEMO, Reserve Level Declaration Guidelines.

D.1.1 The LRC framework

AEMO may declare an LRC when it considers that the available balance of generation capacity and demand is unlikely to meet the reliability standard. In practical terms, the system may still have sufficient supply at present, but forecasts indicate a heightened risk of customer outages beyond the acceptable level set by the reliability standard. An LRC is therefore a forward-looking reliability warning, based on probabilistic modelling of future supply and demand conditions identified through the MT PASA.

The MT PASA is primarily an operational tool where participants provide AEMO with information regarding their expected capacity over a two-year outlook.[124] Combined with network information and demand forecasts, the MT PASA process identifies potential shortfall situations and is run at least weekly. To implement the reliability standard through MT PASA, AEMO:[125]

- estimates the likelihood and magnitude of unserved energy (USE) across half-hour intervals
- uses inputs such as generator availability, demand forecasts, intermittent generation, and transmission constraints
- applies probabilistic modelling, including time-sequential, security-constrained dispatch simulations and Monte Carlo analysis.

If the modelled expected annual USE exceeds the reliability standard, AEMO identifies an LRC.

LRC notices are intended to prompt a market response, such as increasing available supply or reducing demand. Where risks persist, AEMO may take further action, including:

- directing market participants (for example, to reschedule outages)
- procuring and activating reserves under the Reliability and Emergency Reserve Trader (RERT) framework.

D.1.2 The LOR framework

The NEM is designed with a reserve margin (or "buffer"), spare generation capacity above forecast demand to help meet demand during unexpected or challenging conditions.[126]

LOR is a short-term operational signal used by AEMO when supply margins, as indicated in the ST PASA, begin to tighten. Unlike LRC, LOR is not assessed against the reliability standard. Instead, it is a real-time market-signalling tool that alerts participants to reserve risks and prompts them to respond to maintain reliability.

The ST PASA is based on high-quality, near-term participant information.[127]

LOR reflects the gap between available supply and expected demand, including required contingency reserves. AEMO determines LOR levels using a probabilistic approach that accounts for forecast uncertainty. This uncertainty is quantified as the Forecast Uncertainty Measure (FUM), expressed in MW for operational use.

AEMO combines the FUM with the size of credible contingency events to determine LOR trigger levels:[128]

124 NER 3.7(1) information from all Scheduled Generators, Market Customers, Transmission Network Service Providers and Market Network Service Providers about their intentions for: (i) generation, transmission and market network service maintenance scheduling; (ii) intended plant availabilities; (iii) energy constraints; (iv) other plant conditions which could materially impact upon power system security and reliability of supply; and (v) significant changes to load forecasts previously notified to AEMO.

125 AEMO, Reliability Standard Implementation Guidelines.

126 AEMO, Fact Sheet: NEM Lack of Reserve.

127 Scheduled Generators' or Market Participants' current intentions and best estimates of available capacity of each scheduled generating unit, wholesale demand response unit, scheduled load or scheduled network service for each 30-minute period under expected market conditions.

128 AEMO Reserve Level Declaration Guidelines.

- **LOR1**: reserve margin falls below the level required to cover the largest credible contingency
- **LOR2**: reserve margin falls below the level required to cover the two largest credible contingencies (occurring sequentially)
- **LOR3**: reserve margin is insufficient to meet demand, implying a risk of load shedding.

A range of planned and unplanned events can reduce available reserves and increase the risk of LOR conditions, including:[129]

- extreme weather (e.g. bushfires, heatwaves, floods, storms)
- periods of high demand
- generation or network outages
- scheduled maintenance of critical infrastructure.

LOR thresholds are closely linked to credible contingency events

AEMO determines, for each region, the two largest relevant contingencies that could reduce available supply.[130] These will generally be determined automatically, consistent with a list of relevant credible contingency events to be published by AEMO on its website alongside these Guidelines.

AEMO then assesses the expected reduction in capacity reserves based on:

- the largest single credible contingency event (measured in MW); and
- the combined impact of the two largest credible contingency events, assuming they occur one after the other, with enough time between events for the power system to return to a secure operating state.

The temporary reclassification of a non-credible contingency event can change which events are considered the largest or second-largest credible contingencies at any point in time. When such a reclassification occurs, AEMO follows the requirements of the NER and its standard procedures by issuing a market notice.

LOR trigger levels and conditions

AEMO declares an LOR condition when there is a real chance of load shedding because there is not enough reserve capacity at a point in time. This happens when the available reserves in a region fall below the relevant LOR trigger level. (Table D.1).

129 AEMO Fact Sheet: NEM Lack of Reserve.

130 *In determining the size of a credible contingency event for this purpose, AEMO considers both the actual loss of dispatched energy and the reduction in available reserves. For a contingency involving an interconnector element, the lower value of the reduction in power transfer capability of the interconnector in the relevant direction and the spare generation reserves in the sending end region will be considered.*

Table D.1: LORs are categorised into three tiers:

Level	Description
LOR 1	• This is the least severe alert level. • Signals actual or forecast reduction in pre-determined electricity reserves (i.e. below two largest supply resources in state) but no expected impact on power system security or reliability. • AEMO continues to monitor reserve levels to maintain adequate supply.
LOR 2	• This is the middle alert level. It can also work in real time or forecast. • Signals when reserve levels are lower than the single largest supply resource in a state, calling for a market response. At this level, there is no impact on the power system, but the supply could be disrupted if a large incident occurred. • AEMO has the ability to direct generators or activate a reserve mechanism to improve the supply-demand balance.
LOR 3	• This is the most severe alert level. • Signals a deficit in the electricity supply, resulting in a system security condition. • For a forecast LOR 3, load shedding may be required; for an actual LOR 3, load shedding is or already is activated.

Source: AEMO Fact Sheet: NEM Lack of Reserve

AEMO issues a market notice to update LOR conditions when either of the following happens:[131]

- the size of the LOR condition changes by the amount set out in the guidelines; or
- the LOR period changes by one hour or more (that is, two or more 30-minute periods).

AEMO may cancel an LOR condition when the situation improves:

- LOR1: cancelled if resolved in the latest day PASA or pre-dispatch (PD PASA) run
- LOR2 or LOR3: cancelled if resolved in any 6-day PASA or PD PASA run

All market notices will include the:

- start time and end time of the LOR condition
- latest time AEMO may need to intervene.

AEMO determines the latest time to intervene based on:

- information from market participants
- existing RERT agreements or contracts

If the market does not fix the reserve shortfall by this time, AEMO may step in by:

- issuing directions or instructions, or
- activating RERT (emergency reserves)

131 AEMO, Reserve Level Declaration Guidelines.

LOR Reporting and Transparency

AEMO publishes a quarterly LOR report. These reports explain how often LOR conditions occurred, what caused them, any trends over time and what actions AEMO took. For example, between 1 January and 31 March 2026, AEMO declared 29 LOR conditions across the NEM.[132]

Table D.2: A comparison of LRC and LOR

	LRC	LOR
Description	LRC is a reliability-standard assessment, based on longer-term probabilistic modelling	LOR is a short-term operational signal, used in real time to manage reserve levels and system security.
Reference to the reliability standard or USE	It makes references to the USE	It does not make reference to the reliability standard (or USE)

Source: AEMC Analysis

D.2 The reliability standard does not inform the LOR

The reliability standard measures whether there is enough electricity supply to meet demand.

- It is defined as the maximum allowed unserved energy (USE)
- USE means the amount of demand that cannot be supplied
- It is measured as a percentage of total energy over a year
- The current standard is 0.002%.

AEMO implements the reliability standard using forecasts and projections across different timeframes. AEMO uses different processes to assess supply and demand over time:

- **ESOO (10 years)** provides a long-term outlook of supply and demand to help planning and investment decisions.
- **EAAP (2 years)** Looks at the risk of supply shortfalls, especially where energy may be limited (for example, fuel constraints).
- **MT PASA (2 years)** Uses modelling to assess reliability and identify when reserves may fall below required levels.
- **ST PASA (1 week)** Assesses short-term system conditions and identifies **LOR** events.

132 AEMO, NEM Lack of Reserve Framework Report.

Table D.3: Summary of processes that AEMO uses to implement the reliability standard and the interim reliability measure

Process	Study time-frame/publication frequency	Assessment method	Primary action	Assumption for potential exceedance of reliability standard (or interim reliability measure)
ESOO	10 years/Annually	Directly assess USE expectations based on probabilistic modelling	Inform, and request a reliability instrument if required	Forecast USE>0.002% in any forecast year for the reliability standard. Forecast USE>0.0006% in any forecast year for the interim reliability measure
EAAP	2 years/Annually	Directly assess USE expectations based on probabilistic modelling.	Inform	Forecast USE>0.002% in any forecast year
MT PASA	2 years/Weekly	USE Directly assess USE expectations based on probabilistic modelling.	Inform	Forecast USE>0.002% in any forecast year
ST PASA	7 day/ 2 hours	Capacity Is any region in LOR2 or LOR3?	Inform	

Source: AEMO reliability standard implementation guidelines

Abbreviations and defined terms

AEMC	Australian Energy Market Commission
ACCC	Australian Competition & Consumer Commission
ADGSM	Australian Domestic Gas Security Mechanism
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AFMA	Australian Financial Markets Association
APA	Australian Pipeline Association
APC	Administered price cap
APGA	Australian Pipelines and Gas Association
APLNG	Australia Pacific LNG
Commission	See AEMC
CPI	Consumer Price Index
CPT	Cumulative Price Threshold
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Cwth)
DISR	Department of Industry, Science and Resources
DWGM	Declared wholesale gas market
EAAP	Energy Adequacy Assessment Projection
ECGS	East Coast Gas System
ERSAA	Enhancing reliability and supply adequacy arrangements (this rule change)
ESOO	Electricity Statement of Opportunities
EUAA	Energy Users Association of Australia
FUM	forecast uncertainty measure
GPG	gas powered generation
GPGs	gas powered generators
GRC	gas reliability committee
GSAA	gas supply adequacy assessment
GSAR	Gas Supply Adequacy and Reliability
GSOO	Gas Statement of Opportunities
HoA	heads of agreement
IT	Information Technology
LNG	liquefied natural gas
LOR	lack of reserve
LRC	low reserve condition
LT RSA	Long term reliability and supply adequacy
MCE	Ministerial Council on Energy
MMP	Minimum market price
MPC	Market price cap
MT PASA	Medium Term Projected Assessment of System Adequacy
MW	megawatts

NEL	National Electricity Law
NEM	National Electricity Market
NEO	National Electricity Objective
NER	National Electricity Rules
NERL	National Energy Retail Law
NERO	National Energy Retail Objective
NERR	National Energy Retail Rules
NGL	National Gas Law
NGO	National Gas Objective
NGR	National Gas Rules
NOC	Notice of closure
NT Act	*National Electricity (Northern Territory) (National Uniform Legislation) Act 2015*
PASA	Projected Assessment of System Adequacy
PD PASA	pre-dispatch Projected Assessment of System Adequacy
POE	probability of exceedance
Proponent	The individual / organisation who submitted the rule change request to the Commission
QUEN	Queensland Energy Users Network
RERT	Reliability and Emergency Reserve Trader
RSA	Reliability and supply adequacy
RSIG	Reliability Standard Implementation Guidelines
RSSR	Reliability Standards and Settings Review
SoLR	Supplier of last resort
ST PASA	Short Term Projected Assessment of System Adequacy
STTM	Short term trading market
ToR	Terms of Reference
USE	unserved energy
VGCR	Value of gas customer reliability
VGPR	Victorian Gas Planning Report
VoLL	value of lost load
WTP	Willingness to pay