AEMC

RULE

Australian Energy Market Commission

RULE DETERMINATION

NATIONAL ELECTRICITY AMENDMENT (GENERATOR THREE YEAR NOTICE OF CLOSURE) RULE 2019

PROPONENT
Dr Kerry Schott AO

8 NOVEMBER 2018

INQUIRIES

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ABOUT THE AEMC

The AEMC reports to the Council of Australian Governments (COAG) through the COAG Energy Council. We have two functions. We make and amend the national electricity, gas and energy retail rules and conduct independent reviews for the COAG Energy Council.

SUMMARY

1 The Australian Energy Market Commission (Commission) has made a final rule that promotes reliability in the national electricity market (NEM). It does so by creating a framework that requires generators to provide AEMO the expected closure year for all their scheduled and semi-scheduled generating units. It also requires them to provide AEMO at least three years' notice of their intention to permanently close a generating unit by notifying the date they wish to terminate the classification of the generating unit. The rule permits a generator to provide its first notice of closure with less than three years notice in circumstances where an exemption has been granted by the AER. It also requires an amended notice of closure to provide no less than three years notice from the date the amended notice is provided, unless the closure date extends a previous closure date, or an exemption has been granted by the AER. The provision of this information to the market will assist in managing the market impacts of the retirement of the existing coal-fired generators as they reach the end of their economic lives.

2 The rule also provides the Reliability Panel with discretion to identify specific energy constraint scenarios to be included for study for the purposes of preparing the Energy Adequacy Assessment Projection (EAAP). This will broaden the nature of input AEMO receives in considering possible energy constraint scenarios and their impact on generation adequacy.

3 This final rule is made in response to a rule change request from Dr Kerry Schott AO, the Chair of the Energy Security Board. The rule change request was based on one of the recommendations of the Independent Review into the Future Security of the NEM (Finkel Review), where one of the central tenets of the report was the need for an orderly transition to a power system with a higher penetration of renewables.

4 The Commission's final rule is a more preferable rule.

The Commission's rationale

5 Recent experience shows that sudden and unexpected retirement of large generators can cause undesirable consequences in the market, such as a material increase in wholesale prices. Provided with sufficient notice, the market has time to respond, minimising the likelihood of any price shocks.

6 In addition, a sudden retirement can leave little or no time for a corresponding level of investment in new generation to replace that which is lost, which can increase concerns about reliability (a higher risk there is insufficient generation to meet demand). These concerns may not eventuate if information on plant retirement is provided to the market in sufficient time for participants to respond. This time allows market participants to factor this information into their investment, operational and retirement decisions, potentially changing their decisions. For example, another generator may decide to stay open longer or bring forward its plans to invest in new generation.

7 Therefore, the Commission considers that it would be beneficial for generators to provide information to the market about their intention to close generating units because of the rapid nature of changes in generation technology, which increases the need for parties to have

information they can rely on to make investment decisions.

8 Ultimately, more informed and efficient decision making in the wholesale market should flow through to lower costs for consumers.

9 Obviously, increasing transparency will only be in the long-term interests of consumers if the benefits associated with providing the information (described above), outweigh the costs of collecting the information. In this case, the Commission considers that the costs associated with collecting this information for participants and AEMO are relatively small. This reinforces the Commission's view that requiring generators to provide this information would be beneficial to market efficiency.

The final rule

10 The final rule will require:

- scheduled and semi-scheduled generators to notify AEMO on registration, and regularly update, the year they expect a generating unit to cease supplying electricity (the "expected closure year")
- generators to notify AEMO of the date they intend to terminate a generating unit classification, and in the case of a market generator, cease supplying electricity or trading directly into the market in relation to one or more connection points (the "closure date")
- closure dates to be no earlier than three years from the date of the notice, unless the generator has been granted an exemption by the AER
- amendments to the closure date to be no earlier than three years from the date the most recent closure date was provided, unless the updated closure date is later than the most recent closure date, or the amended closure date is no earlier than three years from the date the amended notice is provided, or the AER grants the generator an exemption
- AEMO to consider and incorporate expected closure year and closure dates notified by generators as part of the Electricity Statement of Opportunities (ESOO)
- the AER to issue a notice of closure exemption guideline, which must include the information to be provided by a generator in an exemption application and procedures for handling applications, which it may amend from time to time in accordance with the Rules consultation process
- AEMO to maintain and publish an up to date list of expected closure years and closure dates for generating units on its website.

  It also includes a change to the EAAP process to give the Reliability Panel the discretion to identify specific energy constraint scenarios to be included for study for the purposes of preparing the EAAP. This may require AEMO to consider a broader range of energy constraint scenarios when they assess their potential impact on reliability in the NEM.

Benefits of the final rule

11 Having regard to the issues raised in the rule change request and during consultation, the Commission is satisfied that the more preferable rule will, or is likely to, contribute to the achievement of the National Energy Objective (NEO) for the following reasons:

- The rule would improve the provision of information in the NEM in a manner that is clear and supports accountability and confidence in the system. In particular, the reporting requirements clearly define obligations and the parties subject to these obligations. The scope of the rule is also tailored to balance the desire for greater information provision with the commercial and operational realities and costs of providing the information.
- The rule would provide transparency and predictability of information provided to market participants and potential market participants regarding the closure of generation capacity. This information would, in turn, promote efficiency in the investment in and operation of generation capacity and demand response in the NEM because it would provide market participants a clearer expectation of future generation capacity and how best to respond/adapt to changes. The rule, with amendments, is therefore likely to improve the price and reliability of supply of electricity, in the long-term interests of consumers.

Transitioning to the new framework

12 The commencement date of the rule will be 8 November 2018. However, transitional provisions allow:

- the AER until 31 August 2019 to prepare and publish their exemption guidelines, in accordance with the rules consultation procedures. Generators will only be required to comply with the obligation to provide three years' notice of closure from 1 September 2019.
- AEMO until 1 March 2019 to modify its systems to accept and publish standing data for expected closure years and closure dates. Generators registered on or before 2 March 2019 will be required to provide their expected closure year to AEMO as soon as practicable after that date.

13 This timetable has been developed to give participants, AEMO and AER sufficient time to prepare for the new framework to come into effect.

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1 THE RULE CHANGE REQUEST

This chapter sets out:

- the proponent's rule change request (section 1.1)
- the background and context for the request (section 1.2)
- the current arrangements (section 1.3)
- the proponent's rationale for making the rule change (section 1.4)
- the proponent's proposed solution (section 1.5)
- a summary of the rule making process the Commission has followed (section 1.6)
- the structure for the remainder of the paper (section 1.7).

1.1 The proponent's rule change request

On 6 March 2018, the Chair of the Energy Security Board, Dr Kerry Schott AO (proponent), made a request to the Australian Energy Market Commission (AEMC or Commission) to change the National Electricity Rules (NER) to assist in managing the retirement of the existing coal-fired generators as they reach the end of their economic lives (rule change request).

Specifically, the rule change request sought to:

- require scheduled and semi-scheduled generators to provide the Australian Energy Market Operator (AEMO) with the expected closure year of each of their generating units and at least three years' notice of any cessation of registration of a Generator[1] or termination of classification of a generating unit as scheduled or semi-scheduled
- enhance AEMO reporting through the medium term (MT) projected assessment of system adequacy (PASA) reporting process and Electricity Statement of Opportunities (ESOO)
- give the Reliability Panel the discretion to identify specific energy constraint scenarios for the focus of study under the Energy Adequacy Assessment Projection (EAAP).

The rule change request can be found on the Commission's website.[2]

1.2 Background and context

The rule change request is based on one of the recommendations of the Independent Review into the Future Security of the National Electricity Market (Finkel Review).

The Finkel Review identified managing the retirement of the existing coal-fired generators as they reach their end of life as a key challenge facing the NEM. In its report,[3] the Finkel Panel noted that "generators retire with much shorter notice to the market than the time it takes for new capacity to be planned, financed and constructed".[4] According to the report, the

1 This is a reference to the person owning, controlling or operating the generating system, rather than the generating asset itself.

2 AEMC, *Rule change request*, https://www.aemc.gov.au/rule-changes/generator-three-year-notice-closure.

3 Commonwealth of Australia, *Independent Review into the Future Security of the National Electricity Market - Blueprint for the Future*, https://www.energy.gov.au/publications/independent-review-future-security-national-electricity -market-blueprint-future, June 2017.

Northern and Playford B generators gave only eleven months' notice of closure, while Hazelwood gave only five months. The report suggested that short notice of such closures is not atypical but is well below the notice required for replacement generation assets to come online.

Therefore, the Finkel Panel felt it would be desirable for there to be a period of overlap between the entry of new capacity and the exit of old capacity. The report argued that, "(f)or this to be possible, the operator and the market must have better visibility over when existing large generators will exit the market".[5] Also, while some information about expected closure dates is currently made public, the Finkel Panel suggested AEMO should do more to gather and publicise informed and up-to-date estimates of closure and that this should involve more active discussion with generator owners and operators.

In its report, the Finkel Review recommended:[6]

- a requirement for all large generators to provide at least three years' notice prior to closure
- AEMO should maintain and publish a register of long-term expected closure dates for large generators.

The report recommended all types of large-scale generation should be covered, including coal, gas, hydro, wind and solar and suggested this would provide sufficient time for replacement capacity to be built and for affected communities to plan for change.

The Commission notes that since the publication of the Finkel Panel's report, the reliability and security of the NEM has attracted considerable attention from policy makers.

Given this increase in focus, the AEMC's *Reliability frameworks review* has considered and recommended possible changes so that regulatory and market arrangements continue to deliver long-term reliability at least cost. Many of the recommendations from this review are now being progressed by the Commission or shortly to be submitted to the Commission as rule changes, such as the proposal to implement a wholesale demand response mechanism and the work that AEMO is doing in developing a rule change request to implement a short-term forward market.[7] In addition, the Commission has completed a rule change to reinstate long notice RERT[8] and is considering a rule change from AEMO seeking enhancements to the RERT.[9]

It is within this context that the Commission has considered the proponent's rule change request. It means that the proposal to require AEMO to maintain and publish a register of long-term expected closure dates for large generators (i.e. the subject of this rule change) is related to information requirements about reliability.

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4 Ibid. p. 87.

5 Ibid.

6 See recommendation 3.2 of the Finkel Review report.

7 PIAC, Total Environmental Centre and Australia Institute, Wholesale demand response: energy market mechanism rule change request, 31 August 2018.

8 AEMC, Reinstatement of the long notice Reliability and Emergency Reserve Trader, https://www.aemc.gov.au/rule-changes/reinstatement-long-notice-reliability-and-emergency-reserve-trader.

9 Ibid.

1.3 Current arrangements

Clause 2.10.1 of the NER states that a generator may notify AEMO in writing that it wishes to cease to be registered in any category of registered participant or that it wishes to terminate any of its classifications of loads, generating units or network services. This is not a civil penalty provision and the rules do not contain an expectation that a participant should provide the market a period of notice of its intention to close a generating station or unit.

Up until the point of termination, a registered participant must comply with all of its NER obligations, including its technical standards and requirements to provide information to AEMO as part of the various ESOO and PASA processes. The AER's information booklet, *Generator Performance Standards*, reinforces this view for generating units which are shut down and placed in 'dry-storage' (mothballed) for an extended period of time.[10] The AER notes that if generating plants placed in dry-storage allow their technical compliance programs to lapse, there may be a heightened risk to power system security if those plants return to service. Consequently, it expects generators "to continue to comply with all applicable obligations under the Electricity Rules for as long as they remain registered" (see box below for more details).[11]

BOX 1: GENERATOR PERFORMANCE STANDARDS REQUIRED OF MOTHBALLED UNITS

If generating plants that are placed in dry-storage (mothballed) allow their technical compliance programs to lapse, there may be a heightened risk to power system security upon those plants' return to service.

For this reason, the AER expects generators that are offline for any period of time to continue to comply with all applicable obligations under the Electricity Rules for as long as they remain registered in the National Electricity Market (**NEM**). Continuing appropriate testing and maintenance of the plant should avoid non-compliance that may materially affect power system security if the generator was to return to service.

Generator performance standards (**GPS**) are:

- the specific performance standards established for each registered generator in accordance with clause 5.3.4A(i) of the Electricity Rules, or
- included in the register of performance standards established and maintained by the Australian Energy Market Operator (**AEMO**) under clause 4.14(n) of the Electricity Rules.

Compliance with performance standards is fundamental to ensure AEMO can safely and reliably operate the power system. Non-compliance with certain performance standards may materially increase the risk of major power system incidents.

10 AER, *Generator performance standards information booklet*, https://www.aer.gov.au/wholesale-markets/market-guidelines-reviews/generator-performance-standards-information-booklet, August 2013.

11 ibid, p. 6.

The NER require generators to plan and design their facilities to ensure that, among other things, they operate in a manner that complies with the applicable performance standards. They also provide that a registered participant who plans, owns, controls or operates a plant to which a performance standard applies must:

- institute and maintain a compliance program
- maintain compliance program records and other prescribed records for 7 years and, if requested, deliver such records to the AER within 5 business days or other specified period
- immediately notify AEMO if the plant is breaching a performance standard or is likely to breach it.

These requirements in the NER are civil penalty provisions.

Source: AER, Generator Performance Standards, Information Booklet, August 2013.

Scheduled and semi-scheduled generators also have to update their availability/outages as part of the MT PASA process in section 3.7 of the NER (this is a civil penalty provision) but there is no requirement to identify temporary from permanent changes in availability. The AER also monitors and enforces participant obligations associated with these clauses. For example, in its September 2017 Quarterly Compliance Report the AER set out its expectations for compliance with PASA obligations, and set out examples of what should be considered best practice.[12] The AER notes that the values submitted to AEMO as part of this process must represent the participant's current intentions and best estimates.

1.4 Rationale for the rule change request

In the rule change request, the proponent stated that the proposed rule "is focussed on the provision of additional, specific information to AEMO on expected closure dates and includes a requirement that scheduled and semi-scheduled generators provide at least three years' notice of when it will cease to supply electricity or trade directly in the market".[13]

The proponent suggested the proposed rule change would assist in managing the retirement of the existing coal-fired generators by augmenting the existing reporting requirements on generators to provide additional information to AEMO relating to expected closure dates. This information would give AEMO and market participants (through AEMO's reporting) a better outlook of generator availability into the future.[14]

12 AER, *Quarterly compliance report September 2017*, https://www.aer.gov.au/system/files/Quarterly%20Compliance%20Report%20July%20-%20September%202017%20.PDF

13 AEMC website, *Rule change request*, https://www.aemc.gov.au/rule-changes/generator-three-year-notice-closure, p.11.

14 Ibid, p. 12.

1.5 Solution proposed in the rule change request

The proponent sought to provide an expectation that participants will provide appropriate notice of closure by proposing the following changes to the rules:[15]

- A requirement for scheduled or semi-scheduled generators to provide to AEMO three years' notice of cessation of registration as a generator or termination of classification.
- A requirement for scheduled and semi-scheduled generators to notify AEMO on registration, and regularly update through the MT PASA reporting process, the year they expect a generating unit to cease supplying electricity (the "expected closure year"). The expected closure date should be no later than the expiry date of a generator's licence or authority to generate.
- A requirement that a date must be specified for when a generating unit classification is to be terminated, and in the case of a market generator, the date it will cease supplying electricity or trading directly into the market[16] in relation to one or more connection points (the "closure date").
- A requirement that the closure date for scheduled or semi-scheduled generators be no earlier than three years from the date the notice is provided in writing to AEMO. The closure date can only be earlier because of an event beyond the reasonable control of the generator, and where the occurrence of the event could not reasonably have been foreseen by the relevant generator.
- A requirement for AEMO to report through the MT PASA and ESOO the "expected closure year" for generating units.
- A proposed change to the current Energy Adequacy Assessment Projection (EAAP) process to give the Reliability Panel the discretion to identify specific energy constraint scenarios for the focus of study under the EAAP. This would require AEMO to consider a broader range of energy constraint scenarios when it assesses their potential impact on reliability in the NEM.

BOX 2: ESOO, PASA, AND EAAP PROCESSES

AEMO is required by the NER to publish various materials which provide additional information to market participants – and any other interested parties – on matters pertaining to the reliability standard; that is, over and above the information contained in contract and spot market prices. This information is provided in several formats and considers various time-frames. It helps guide market participants' expectations of the future, enabling more efficient investment and operational decisions. These publications include:

- Electricity Statement of Opportunities (ESOO) – this document is published annually and projects generation adequacy under a number of scenarios over a ten-year-period

15 Ibid.

16 NER, Chapter 10 definition of 'market' includes all markets or exchanges described in the NER as conducted by AEMO (which includes the NEM).

- Projected Assessment of System Adequacy (PASA) – this publication assesses generation adequacy over various forward intervals (for example, over the next two years, six days or over the next day)
- Energy Adequacy Assessment Projection (EAAP) – this document provides information on the impact of potential energy constraints, particularly those relating to inputs to production, for example, water shortages or constraints on fuel supply.

1.6 The rule making process

On 10 May 2018, the Commission published a notice advising of its commencement of the rule making process and consultation in respect of the rule change request. [17] A consultation paper identifying specific issues for consultation was also published. Submissions closed on 7 June 2018. The Commission received 17 submissions as part of the first round of consultation.

On 16 August 2018, the Commission published its draft determination and draft rule which was largely the same as the proposed rule, with some minor changes made to improve the effectiveness of the framework.

Submissions closed on 27 September 2018. The Commission received seven submissions as part of the second round of consultation.

The Commission has considered all issues raised by stakeholders in all submissions. The consideration of those issues is set out in chapter 3.

1.7 Structure of the paper

The remainder of this paper is structured as follows:

- an overview of the final rule determination (chapter 2)
- the Commission's consideration of issues raised by stakeholders (chapter 3)
- outline of the legal requirements under the NEL (appendix a)
- the Commission's analysis of the effect of varying the size threshold (appendix b).

17 This notice was published under s.95 of the National Electricity Law (NEL).

2 FINAL RULE DETERMINATION

The rule made by the Commission, as attached to and published with this final rule determination, would require scheduled and semi-scheduled generators to provide AEMO at least three years' notice of their intention to permanently close a generating unit unless they are granted an exemption by the AER. The intention to close is tied to terminating the classification of the generating unit and (if they are a market generator) ceasing generating or trading.

The rule will also require generators to notify AEMO of the expected closure year for every scheduled and semi-scheduled generating unit registered and regularly update AEMO of any changes to it. The rule permits a Generator to provide its first notice of closure with less than three years notice in circumstances where an exemption has been granted by the AER. It also requires an amended notice of closure to provide no less than three years notice from the date the amended notice is provided, unless the closure date extends a previous closure date, or an exemption has been granted by the AER.

AEMO would be required to publish a list of the "expected closure years" and "closure dates" for relevant generating units and keep it up to date (based on participant notices provided to it). AEMO would also be required to consider the implications for the ESOO when it receives an amended expected closure year and closure date.

Finally, the rule provides the Reliability Panel with the discretion to identify specific energy constraint scenarios to be included for study for the purposes of preparing the EAAP. This would broaden the nature of input AEMO receives in considering possible energy constraint scenarios when they assess their potential impact on reliability in the NEM.

The Commission is recommending the COAG Energy Council classify the requirement for scheduled and semi-scheduled generators to notify AEMO of an intention to close, and the requirement to provide three year's notice of such an intention, as civil penalty provisions.

Further information on the legal requirements for making this final rule determination is set out in appendix a.

2.1 Rule making test

2.1.1 Achieving the NEO

Under the NEL, the Commission may only make a rule if it is satisfied that the rule will, or is likely to, contribute to the achievement of the national electricity objective (NEO).[18] This is the decision making framework that the Commission must apply.

The NEO is:[19]

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

18 Section 88 of the NEL.
19 Section 7 of the NEL.

(a) price, quality, safety, reliability and security of supply of electricity; and

(b) the reliability, safety and security of the national electricity system.

The framework used for assessing that the rule will, or is likely to, contribute to the achievement of the NEO is set out in the next subsection.

The Commission did not assess the proposed rule against additional elements required by the Northern Territory legislation as the proposed rule relates to parts of the NER that currently do not apply in the Northern Territory. Requirements relating to that are described in appendix a.

The Commission is satisfied that the final rule falls within the subject matter about which the Commission may make rules. The final rule falls within section 34 of the NEL as it relates to the operation of the national electricity system for the purposes of safety, security and reliability of the system.

2.1.2 Making a more preferable rule

Under s. 91A of the NEL, 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 will or is likely to better contribute to the achievement of the NEO.

In this instance, the Commission has made a more preferable rule. The reasons are summarised below.

2.2 Assessment framework

This section sets out how the Commission assessed whether the proposed rule will, or is likely to, contribute to the achievement of the NEO.

The Commission considers that the relevant aspects of the NEO are the efficient operation and use of electricity services with respect to the reliability and price of supply of electricity and reliability of the national electricity system. Sudden and unexpected retirement of large generators may cause undesirable consequences in the market, such as a material increase in wholesale prices. Provided with sufficient notice, the market has time to respond, minimising the likelihood of any price shocks.

Further, the retirement of large generating units without a corresponding level of investment in new generating units, has the potential to increase concerns about reliability (that is, that there would be load shedding occurring as a result of there being insufficient generation to meet demand at a particular point in time). These concerns would diminish if information that the capacity will be retired is provided to the market in sufficient time for participants to respond. This time allows other participants to factor this information into their investment, operational and retirement decisions, with the provision of information potentially *changing* these decisions. For example, another generator may decide to stay open longer or bring forward its plans to invest in new generation.

In assessing the rule change request against the NEO, the Commission considered the following principles:

- **Improve the provision of information**: The arrangements for registration and any additional reporting requirements in the NER should be clear, consistent and understandable to all participants. The inclusion of clear reporting requirements around expected closure dates of generators, and how and when this information is to be provided, should support accountability and confidence in the system.
- **Enhance transparency and predictability**: The transparency of information is a key feature of the efficient operation of the NEM. Market participants need access to clear, timely and accurate information in order to allow them to make efficient commercial and operational decisions. Greater transparency resulting from additional reporting requirements should make it easier for market participants to examine trends and plan for the future, thereby contributing to more informed and efficient decision making.
- **Efficiency of investment in and operation of generation capacity and demand response**: Improving the provision of information, transparency and predictability of information in the NEM can assist in promoting efficiency of investment in, and operation of, generation capacity and demand response decisions. By publicly disclosing, at the same time, to all interested parties information that is, or has the potential to be, market-sensitive, this can potentially help energy market participants to make more efficient decisions. The Commission has considered how the provision of this information could assist in market participants making more efficient investment and operational decisions.
- **Administrative costs**: The disclosure and maintenance of a register providing notice may increase administrative costs for market participants and AEMO. Furthermore, requiring market participants to decide on tentative closure dates could also result in an increase in administrative costs. The Commission has assessed how the proposed rule affects administrative costs and considered these costs against the benefits the rule change may provide.

2.3 Summary of reasons

The final rule made by the Commission is attached to and published with this final rule determination. The key features of the final rule are requirements for:

- scheduled and semi-scheduled generators to notify AEMO on registration, and regularly update, the year they expect a generating unit to cease supplying electricity (the "expected closure year")
- generators to specify a date when a generating unit classification is to be terminated, and in the case of a market generator, when it will also cease supplying electricity or trading directly into the market[20] in relation to one or more connection points (the "closure date")
- closure dates to be no earlier than three years from the date of the notice unless, they have been granted an exemption by the AER

20 NER, Chapter 10 definition of 'market' includes all markets or exchanges described in the NER as conducted by AEMO (which includes the NEM).

- amendments to the closure date to be no earlier than three years from the date the most recent closure date was provided, unless the updated closure date is later than the most recent closure date, or the amended closure date is no earlier than three years from the date the amended notice is provided, or the AER grants the generator an exemption
- the AER to issue a notice of closure exemption guideline, which must include the information to be provided by a generator in an exemption application and procedures for handling applications, which it may amend from time to time in accordance with the Rules consultation procedures
- AEMO to maintain and publish an up to date list of expected closure years and closure dates for generating units on its website.

The final rule also contains a change to the current Energy Adequacy Assessment Projection (EAAP) process to give the Reliability Panel the discretion to identify specific energy constraint scenarios to be included for study for the purposes of preparing the EAAP. This may require AEMO to consider a broader range of energy constraint scenarios when it assesses their potential impact on reliabililty in the NEM.

The commencement date of the rule is 8 November 2018. However, transitional provisions will provide the AER until 31 August 2019 to prepare and publish their exemption guidelines, with generators only required to comply with the obligation to provide a notice of closure from 1 September 2019.

AEMO must also have modified its systems in order to maintain and publish standing data for expected closure years and closure dates from 1 March 2019, with generators registered on or before 2 March 2019 required to provide their expected closure year to AEMO as soon as practicable after that date.

The final rule is different from the draft rule, and is now a more preferable rule. The key differences between the final rule and the draft rule are:

- Exceptions to the requirement for generators to provide three years' notice of closure will not be filtered through draft clause 2.10.1(c3), which provided for generators to be exempt if an event outside of their reasonable control and which was reasonably unforeseeable occurs. Instead, the final rule requires generators to provide three years' notice unless they are granted an exemption by the AER in keeping with their notice of closure exemption guideline. The AER is required to develop and maintain this guideline in accordance with the rules consultation procedure. This change more clearly defines the process around exceptions, making it more transparent and more adaptable to changing circumstances in the transitioning market.
- The requirement for scheduled and semi-scheduled generators to notify AEMO of their expected closure years and closure dates and obligation for AEMO to maintain and publish that information in the MT PASA has changed. Generators are required to notify AEMO directly of any or changes to any, expected closure year and closure dates, with AEMO required to publish that information as standing data as soon as practicable after it receives it, but to also reflect that information in the ESOO. This change retains the level of transparency of the information of the previous drafting, but achieves it earlier and at lower cost, according to advice from AEMO.

Having regard to the issues raised in the rule change request and after considering stakeholder submissions, the Commission is satisfied that the rule will, or is likely to, contribute to the achievement of the NEO for the following reasons:

- The rule would improve the provision of information in the NEM in a manner that is clear and supports accountability and confidence in the system. In particular, the reporting requirements clearly define obligations and the parties attached. The scope of the rule is also appropriately tailored to balance the desire for greater information provision and the administrative cost associated with the mandating of information provision.
- The rule would provide transparency and predictability of information provided to market participants and potential market participants regarding the closure of generation capacity. This information would, in turn, promote efficiency in the investment in and operation of generation capacity and demand response in the NEM because it would provide market participants a clearer expectation of future generation capacity and how best to respond/adapt to changes. The draft rule, with amendments, is therefore likely to improve the price, reliability and security of supply of electricity and the reliability and security of the national electricity system in the long-term interests of consumers.

The Commission considers that the final rule will, or is more likely to, better contribute to the achievement of the NEO than the proposed rule for the following reasons:

- Having the AER grant exemptions from the rules requirement, in accordance with a guideline that is produced through the rules consultation procedures promotes transparency, clarity and flexibility. It allows generators to seek exemptions in a transparent and clear way. Using a guideline to inform participants about the exemption process also allows the rule to be fit for purpose in a transitioning energy system, since the AER will have discretion to consider relevant elements of the exemption on a case by case basis.
- Implementing the collection of information through the ESOO process and AEMO standing data provisions, rather than the MT PASA process, means that the rule will be able to be implemented at lower cost and in a more timely manner. This is important since any costs associated with implementing this rule will ultimately be passed on to consumers.

3 CONSIDERATION OF THE ISSUES RAISED IN SUBMISSIONS

This chapter outlines the Commission's consideration of each of the following issues raised by stakeholders in submissions:

- Nature of the obligations (section 3.1)
- Size threshold (section 3.2)
- Appropriate notice period (section 3.3)
- Defining closure (section 3.4)
- Provision for changing the closure date (section 3.5)
- Compliance and penalties (section 3.6)
- Provision to exempt parties from providing three years' notice of closure (section 3.7)
- Proposed change to the EAAP (section 3.8)
- Implementation and transition arrangements (section 3.9).

Each subsection below outlines, for each issue, the assessment made in the draft determination, the comments we received from stakeholders, and the Commission's determination and reasoning.

3.1 Nature of the obligations

3.1.1 Proponent's view

The proponent referenced Finkel's approach, which was to require:

- large generators (that pose issues for reliability) to provide at least three years' notice of their intention to close
- AEMO to maintain and publish long term expected closure dates for large generators.

To implement it, the proposed rule change focussed on providing more *information* to market participants about each participant's decisions to close generating stations and units. The rule change request would require scheduled generators and semi-scheduled generators to provide AEMO with:

- expected closure years when they register (new) generating units
- information about closure dates as part of the MT PASA process
- at least three years notice of a decision to terminate the registration of a generating unit.

In addition, AEMO would be required to maintain and publish a list of expected closure dates for all scheduled and semi-scheduled generating units and take account of them as part of the MT PASA and ESOO processes.

3.1.2 Stakeholders' views of the proposed rule change

In the consultation paper, stakeholders were asked about the processes under which participants should notify AEMO of their closure intentions and on the enhancements to

AEMO's reporting requirements. Six stakeholders commented on this subject.[21] All of them supported increasing the information being provided to the market about closure decisions by generators.

Snowy Hydro queried whether large loads should also be required to provide notice of closure.[22]

AGL raised the complication of the interaction of expiry dates, built into various other licenses and authorities, with the initial notice of a generator's intended closure upon registration and the requirement to provide three years notice of closure.[23] It wanted the rule drafting to ensure that, despite these interactions, the closure date notified to AEMO would still accurately reflect the actual closure date of the generator.

Also, the unions (ETU, ASU, ACTU, and CFMEU) noted the examples of sudden closure (Northern and Hazelwood power stations) that demonstrated to them the disruptive impacts on workers and the community. The ACTU urged the AEMC to use the rule change as a vehicle "to engage in urgent actions to start to plan to address just transition within the energy sector".[24] Similarly, the ETU recommended the AEMC ensure any rule change incorporate provision for a "Just Transition" for energy industry workers and their communities.[25]

3.1.3 Draft determination

The Commission agreed with stakeholders that it would be useful for generators to provide information to the market about their intention to close generating units or stations. This is because information about the exit of sources of supply is important information for any well-functioning market. Greater transparency resulting from additional reporting requirements should make it easier for market participants to examine trends and plan for the future, thereby contributing to more informed and efficient decision making.

The Commission acknowledged the difficulty in being precise when it comes time to move from the window provided by the expected closure year to a specific closure date three years in advance. The Commission considered the idea contained in Energy Australia's submission that a generator provide a "closure window" limited to a specified number of months (Energy Australia suggested a period between six and twelve months).[26] However, it decided against this idea because a generator:

1. would have to narrow the period down to a particular week to comply with the requirements of MT PASA
2. could adopt this approach under the proposed rule. If there is some variability in a generator's intended date of retirement, a generator would notify AEMO of the earliest

21 AGL, ACTU, ASU, CFMEU, ETU, Snowy Hydro.
22 Snowy Hydro, Submission to the consultation paper, p. 3.
23 AGL, Submission to the consultation paper, pp. 1-2.
24 ACTU, Submission to the consultation paper, p. 4.
25 ETU, Submission to the consultation paper, p. 6.
26 Energy Australia, Submission to the consultation paper, p. 2.

date in the period it intended to retire a generating unit or station and the variation in circumstances under which it would remain generating.

The Commission considered Snowy Hydro's suggestion to include loads in the rule change. However, the rule change request was focussed on requiring only generators to provide notice of their closure and so the scope of the rule change does not extend to load. The Commission also believes that if the rule was extended to include loads, it would have little effect as the only large loads on AEMO's register of participants are one aluminium smelter, three hydro pumps and two battery reserves.

The Commission acknowledged AGL's concern about the interaction of licence dates. Despite the expiry dates of their various licences, the Commission expects a closure date notified by generators to be based on their reasonable expectation of when they expect to permanently cease generating electricity from a generating unit or station. Therefore, there is no need for the rule drafting to stipulate that the closure date be no later than the expiry of a generator's licence or authority to generate.

The Commission did not consider it reasonable for generators to specify closure dates to match the expiry of licences if there is a reasonable expectation that an extension of a licence (or a new licence) will be granted. However, the circumstances of each generating unit and station may change over time. For instance, toward the end of a station's life, while it may be reasonably outside of its control, it may become likely that a generating unit or station will be refused a new licence or be subject to expensive conditions, which could force its closure.

On the other hand, if a licensing condition is the catalyst for bringing the closure date of a generator forward, necessitating notice to be given within the required three year period, early closure may be a legitimate exception.

In relation to the submissions from the unions, the Commission acknowledged the importance of the unions' concern regarding providing a satisfactory transition for communities and employees when generators decide to close a power station. While these matters are outside the Commission's remit, the Commission considers the provision of three year notices of closure to the market would provide governments and other stakeholders advance notice to address transitional issues of concern to employees and affected communities.

3.1.4 Stakeholder comments on the draft rule

The Commission did not receive any submissions on the nature of the obligations imposed in the draft rule, other than implicit support from stakeholders for providing more information to the market about a participant's decision to close.

3.1.5 Final assessment

Given the above, the Commission remains of the view that it would be beneficial to expect generators to provide information to the market about their intention to close generating units because:

- improving the transparency of generators' retirement intentions should make it easier for market participants to access that information, and factor it into their own decisions about investment, operation and maintenance, and retirement
- the inclusion of more information in these decisions, promotes more informed and efficient decision making.

Ultimately, more informed and efficient decision making in the wholesale market should flow through to reducing costs for consumers.

Obviously, increasing transparency will only be in the long-term interests of consumers if the benefits associated from providing the information (described above), outweigh the costs associated with collecting the information. The Commission considers that the costs that will be associated with collecting this information for participants and AEMO are relatively small. This further reinforces the Commission's view that requiring generators to provide this information would be beneficial.

In addition, recent experience with the closure of Hazelwood and Northern generating units has shown the impacts that such retirements have on the market if there is not sufficient warning. Therefore, the Commission considers it is important for the rules to set expectations about the notice required when generators are forming an intention to close a generating unit.

Accordingly, the final rule requires:

- a generator to notify AEMO of the year in which it expects a scheduled or semi-scheduled generating unit to cease supplying electricity to the network at its connection point as part of it registration information and to immediately notify AEMO of any change to the expected closure year (clause 2.2.1(e)(2)(2A))
- a scheduled generator or semi-scheduled generator to notify AEMO in writing if it wishes to terminate any of its classifications of generating units (clause 2.10.1(a)(2))
- a registered participant, when providing notice to AEMO that it wishes to terminate any of its classifications of generating units under clause 2.10.1(a), to (clause 2.10.1(c1)):
    - if it is a non-market generator, specify a closure date and provide an updated notice to AEMO of any amendment to the closure date, and
    - if it is a market generator, specify a closure date when both the classification of the generating unit will be terminated and it will cease to supply electricity or trade directly into the NEM entirely or in relation to one or more connection points
- the first closure date, specified in the notice described above, be no earlier than three years from the date the first notice was provided to AEMO, except where the relevant Generator is exempted by the AER (clause 2.10.1(c2))
- amendments to closure dates (provided by generators under clause 2.10.1(c3)) to be no earlier than three years from the date of the most recent closure date was provided, unless the updated closure date is later than the most recent closure date (i.e. the closure date is being extended), or the generator is exempted by the AER.
- AEMO to establish, maintain, update and publish a list of the expected closure years and closure dates for all scheduled generating units and semi-scheduled generating units

notified under clauses 2.2.1(e)(2A) and 2.10.1(c1), and make such information available on AEMO's website (clause 3.13.3(2A))

- AEMO, when preparing and publishing a statement of opportunities, to include information on planned plant retirements (including expected closure years and closure dates for any generating units in the subsequent 10 year period).

Having AEMO publish this information on their website, will allow this information to be accessible by, and so transparent to, a range of participants including other market participants, policy makers and governments.

A key change from the draft to the final rule is that this information will be collected directly by AEMO as part of the registration and ESOO processes, rather than the MT PASA process. The rationale for this is discussed further below in section 3.9.

3.2 Size threshold

3.2.1 Proponent's view

The proponent proposed that the obligations should apply to scheduled and semi-scheduled generators. This means the proposed obligations would not apply to non-scheduled generators as defined in NER clause 2.2.3 - that is, generating units with an nameplate rating less than 30 MW, and which are primarily for local use or unable to participate in central dispatch per rule 3.8 (the AEMO dispatch process).

3.2.2 Stakeholders' views of the proposed rule change

In the consultation paper, stakeholders were asked what size threshold should apply to the requirement to provide AEMO three years notice of closure. Six stakeholders commented.[27]

Energy Networks Australia[28] and the Investor Group on Climate Change (IGCC) agreed with the size threshold implied in the drafting of the rule change. The IGCC said:[29]

> The definition of a 'scheduled' and 'semi-scheduled' generator units [are] already contained within the National Electricity Rules, and as recommended by the proposed rule, provides a suitable, and readily understood threshold for requirements for providing notice of closure. IGCC supports the application of these categories as a suitable threshold for notice of closure requirements.

AEMO suggested an explicit threshold of 30 MW be adopted to extend the obligation to non-scheduled generators above that threshold. It argued that this "is a well understood and accepted threshold in the existing registration framework".[30]

27 AEMO, DoEE, Department of the Premier and Cabinet of the South Australian Government, Energy Networks Australia, IGCC, Meridian Energy.

28 Energy Networks Australia, Submission to the consultation paper, p. 4.

29 IGCC, Submission to the consultation paper, p. 5.

30 AEMO, Submission to the consultation paper, p. 3.

Meridian Energy proposed the requirement apply to generators making decisions to close generating units that have a capacity in excess of 250 MW. According to Meridian Energy:[31]

> This level would ensure that notice is provided by large generators whose closure without notice would have the potential to cause significant impacts on the market and the achievement of system reliability objectives while avoiding imposing unnecessary cost and burdens on smaller generators whose unexpected closure is unlikely to have such impacts.

In contrast, the Department of the Environment and Energy of the Commonwealth Government (DoEE) noted that generators are required to be scheduled or semi-scheduled because they are large enough to have a significant impact on the security and reliability of the electricity system and on outcomes in the wholesale market.[32] It argued that, since rapid retirement of scheduled and semi-scheduled generators may have similar impacts, a minimum notification period for closure of these generators is appropriate.

Similarly, the Department of the Premier and Cabinet of the South Australian Government noted that the generation fleet in South Australia ranged in capacity from 21 - 800 MW, while new developments tend to be in the lower half of this range.[33] It suggested the proponent's size threshold may be appropriate so it could cover several generators being retired in close succession and for the simplicity and comprehensiveness it provides for forecasting purposes.

3.2.3 Draft determination

The Commission considered the appropriate size threshold to apply to the notice of closure.

The Finkel Panel did not define how a large a generator should be to be captured by its recommendation. However, it indicated that a large generator was one "whose retirement could pose an issue for reliability". It went on to note that all types of large-scale generation should be covered, including coal, gas, hydro, wind and solar.

The proponent selected a size threshold that is defined by reference to the registration categories of scheduled and semi-scheduled generation. As noted above, the threshold defined in clauses 2.2.2 and 2.2.7 of the NER is 30 MW. Linking the size threshold to these registration categories is administratively simple and seamlessly fits into existing obligations on generators with regard to registration and the PASA process. The proponent and the DoEE supported the argument that the obligation should be applied to all scheduled or semi-scheduled generators because they have been deemed to be of a size that it is possible they can have a significant impact on the security and reliability of the electricity system and on outcomes in the wholesale market.

AEMO's suggestion to specify an explicit 30 MW threshold is less administratively simple as it would impose new obligations on non-scheduled generators to provide information to AEMO as part of the MT PASA process, something they do not do currently. Therefore, the

31 Meridian Energy, Submission to the consultation paper, p. 1.
32 DoEE, Submission to the consultation paper, p. 2.
33 Department of Premier and Cabinet of the South Australian Government, Submission to the consultation paper, p. 2.

Commission preferred to link the size threshold to registration categories, rather than hard-wiring a particular size threshold in the NER. This allows more flexibility in the use of this mechanism as the market transitions.

The Commission also considered Meridian Energy's suggestion as whether or not to impose the obligation only on those generators that are over 250 MW in size. The Commission is of the view that this size threshold would not capture all closures that would pose a "threat" to reliability.

The Commission undertook analysis on the size of units and stations in each region of the NEM (see appendix b). The charts indicate which and how many stations or units would be required to comply with the notice of closure obligation depending on the size threshold set. They show that it is not only difficult to determine the appropriate size threshold, they also illustrate the difficulty in setting one threshold for the NEM. The threshold that might prompt reliability concerns in New South Wales is likely to be significantly higher than the threshold that might be appropriate in South Australia.

Also, a particular size threshold which is appropriate now may not be appropriate as the market transitions in the future. Finally, as the Department for the Environment and Energy noted in its submission on the consultation paper, it is necessary to place an obligation on generators to provide notice for each and every generating unit of a scheduled generator to prevent it circumventing the notice of closure requirement by notifying AEMO of consecutive closure of multiple generating units, perhaps as little as days apart.[34]

Consequently, on balance, the Commission decided to retain the size threshold contained in the proposed rule as striking the right balance between the potential for retirement of generating capacity to pose an issue for reliability and the compliance cost it places on generators.

3.2.4 Stakeholder comments on the draft rule

We received two comments from stakeholders (AGL, South Australian Department of Energy and Mining), both in support of the draft assessment.

AGL agreed the draft rule provided an appropriate balance between the objective and cost:[35]

> Applying the requirements to scheduled and semi-scheduled generators and therefore capturing generating units with a capacity above 30 MW, or below 30 MW if multiple generating units at a connection point have a combined capacity above 30 MW. This captures generators whose closure may have an impact on reliability and using registration categories as the threshold provides administrative simplicity.

The South Australian Department of Energy and Mining supported the simplicity of placing the obligation on existing generator classifications:[36]

34 Department for the Environment and Energy, Submission to the consultation paper, https://www.aemc.gov.au/sites/default/files/2018-06/Department%20of%20the%20Environment%20and%20Energy.PDF, p. 2.

35 AGL, Submission to the draft determination, p. 1.

36 South Australian Department of Energy and Mining, Submission to the draft determination, p. 1.

As indicated in our submission on the consultation paper, the Division supports the proposed application to all scheduled and semi-scheduled generators for its simplicity as an existing classification. With the differences in generation capacities across regions, and as the energy transformation occurs, setting an appropriate and enduring threshold size in numeric terms would be challenging.

3.2.5 Final assessment

The Commission did not receive any submissions with arguments in support of changes to the draft rule with respect to the size of power stations or generating units affected. Both of the submissions received supported the size threshold position that was adopted in the draft rule. i.e. to apply to scheduled and semi-scheduled generators.

The Commission continues to prefer linking the size threshold to registration categories, rather than hard-wiring a particular size threshold into the NER. This will allow more flexibility in the use of this mechanism as the market transitions and the size of "typical" generators changes. The link is also administratively simple and seamlessly fits into existing obligations on generators with regard to registration and the PASA process.

Consequently, the final rule imposes the obligation to provide notice of closure to scheduled and semi-scheduled generators, as defined in Chapter 2 of the NER.

3.3 Appropriate notice period

3.3.1 Proponent's view

The rule change request followed the Finkel Review recommendation for a minimum three years' notice of closure.

In determining the length of notice required, the Finkel Panel suggested that three years provided an appropriate trade-off between the benefit of providing additional certainty for new investors and the cost of limiting the decision making flexibility for generators. It considered a longer period might provide better planning information for those looking to enter the market, but may place an unrealistic expectation of foresight on existing generators. At a minimum, the Finkel Panel considered the notice period should give enough time for new generation capacity to enter the market.

3.3.2 Stakeholders' views of the proposed rule change

In the consultation paper, the Commission asked for stakeholder views on:

- if three years notice strikes the right balance between providing investors with enough notice and generators enough decision making flexibility
- if not three years, what should the appropriate minimum notice period be and why.

Ten stakeholders responded to those questions.[37] While some had reservations, all bar one accepted the Finkel Panel's recommended notice period of three years.

37 Australian Energy Council, AGL, ACTU, AusNet Services, DoEE, Energy Networks Australia, ERM Power, ETU, IGCC, Origin.

The IGCC[38], Origin[39] and the DoEE[40] all supported three years as an appropriate notice period without reservation.

AGL said:[41]

> As noted in the consultation paper, AGL has provided 7 years notice of the closure of Liddell Power Station. Additionally, as part of seeking an extension to the relevant mining license for Loy Yang A Power Station, we provided a 5-year notice of closure to the Victorian Government. We note that these decisions to provide notice were based on broader considerations than those posed in this rule change and thus we would view a 3-year minimum as being sufficient for the purpose of providing certainty to the market.

The ACTU was concerned that the practice of generators providing notice of closure may not result in the result contemplated by the rule change.[42] The ETU had similar concerns.[43]

Energy Networks Australia[44] and Ausnet Services[45] noted that three years notice may not always be enough for any new interconnectors or significant infrastructure development, which could be precipitated by the closure of a generating station.

The Australian Energy Council (AEC) and ERM Power[46] did not support the condition in the proposed rule that expected that a closure date should be no later than the expiry date of a generator's licence or authority to generate. The AEC said:[47]

> It is not uncommon that various licences or other authorities may have an expiry date well within the technical and economic lifetime of the generator, and that the generator may form a reasonable view that these will be extended or replaced prior to their expiry. For example, this is known to occur with environmental licences and network connection agreements. Unfortunately the proposed rule is silent as to the date to be advised to the Australian Energy Market Operator in these instances. To ensure that AEMO has the best information available, the Energy Council recommends that the closure date should not be unconditionally limited in this manner.

ERM Power also suggested there was a strong case to extend the minimum notice of closure requirement to four years in order to complement the proposed National Energy Guarantee's Procurer of Last Resort function.[48] It felt that doubling the current MT PASA timeframe to a four year period, as opposed to the three year period as proposed in the rule change, would

38 IGCC, Submission to the consultation paper, pp. 4-5.
39 Origin, Submission to the consultation paper, p. 2.
40 DoEE, Submission to the consultation paper, p. 2.
41 AGL, Submission to the consultation paper, p. 1.
42 ACTU, Submission to the consultation paper, p. 2.
43 ETU, Submission to the consultation paper, p. 5.
44 Energy Networks Australia, Submission to the consultation paper, p. 4.
45 Ausnet Services, Submission to the consultation paper, p. 2.
46 ERM Power, Submission to the consultation paper, p. 2.
47 AEC, Submission to the consultation paper, pp. 1-2.
48 ERM Power, Submission to the consultation paper, pp. 1-2.

provide enduring benefits to the NEM compared to existing information provisions. On the subject of costs, ERM Power said:

> From a generator's perspective, the requirement to extend data submissions to the MT PASA to 4 years as opposed to the current 2 year, or proposed 3 year period, will not be onerous. Maintenance of generating plant is planned over a long time horizon, generally in excess of ERM Power's proposed 4 year period. As such, the initial requirement to advise an additional 12 months of outage plans compared to the 3 years proposed in the rule change request represents an incremental one-off change to the data submission process and an incremental change to maintain changes in outage timing when and if this occurs. As the MT PASA submission and assessment IT systems would require a change to implement the proposed rule change's shift to 3 years, extending this to 4 years would result in minimal, if any, additional costs.

3.3.3 Draft determination

The feedback from the majority of stakeholders that specifically commented on the notice period all supported the proponent's proposal that generators should provide at least three years notice of closure. The Commission considers this would provide market participants with sufficient notice to invest in new generation to replace generation that is retiring.

The Commission's view is that extending MT PASA, as suggested by ERM Power, is outside the scope of the rule change and is convinced by other submissions that three years notice is sufficient time for the market to respond.

3.3.4 Stakeholder comments on the draft rule

We received four comments on the minimum notice period specified in the draft rule. Three (AGL, Origin, and Alinta) stakeholders expressed support for a three year minimum notice period and one (ENA) argued that it be extended to five years.

AGL agreed a three year minimum period was appropriate, despite the longer notice it has provided for closure of Liddell and Loy Yang:[49]

> As noted in our previous submission, AGL provided 7 years' notice of closure for the Liddell Power Station and 5 years' notice of closure for the Loy Yang A Power Station. Providing the market with sufficient notice of the intended closure dates of large generators will help to minimise pricing and reliability impacts of these closures. We consider a three-year notice period to be sufficient for providing signals for the market to invest in new generation capacity.

Origin also agreed that a three year minimum notice period was appropriate:[50]

49 AGL, Submission to the draft determination, p. 1.
50 Origin, Submission to the draft determination, p. 1.

> As per the recommendation from the Finkel Review, we concur that three years is an appropriate window of time for the notification. Providing a three-year notification period of closure will provide participants time to plan new investments. The Finkel Review identified that a balance is needed as requiring a longer notification period "may place an unrealistic expectation of foresight on existing generators".

Alinta noted the diminishing value of a longer notice period:[51]

> Alinta is aware that other market participants are advocating for an increased five-year notice period. As identified in the draft determination, there are several complexities associated with participants committing to closure dates several years in advance, and these complexities would be magnified under a notice period which extends beyond three years. In Alinta's view the rule should be balanced against these pragmatic concerns.

In contrast, ENA again noted that three years' notice may be sufficient for certain types of new/replacement generation for plant with short lead times.[52] However, it argued that this timeframe may not always be enough for any new interconnectors or significant infrastructure development:

> Transmission planning horizons are 5-10 years and include regulatory investment test processes which can take 12-18 months, land access and construction approvals 24-30 months (including stakeholder and landowner engagement, corridor and site selection, environmental assessment and management plans, planning and environmental approvals, and acquisition of easements and sites) and construction which can take around two years depending on line lengths to be built.

While Energy Networks Australia recognised the current political uncertainty regarding emissions policy, it felt that a minimum of five years' notice would provide a robust framework and have the necessary reliable information at hand when a policy to manage supply and demand, reliability and security of the power system is reformed.[53] Energy Networks Australia noted three developments in support of extending the minimum notice period to five years:

1. recent Energy Security Board (ESB) consultation on the National Energy Guarantee reliability component trigger considering the benefits of a five year trigger in order to encourage the market to work to address the supply gap earlier
2. AGL's comment in its submission to the consultation paper that it provided 7 years' notice of closure for Liddell
3. ERM Power's comment in its submission to the consultation paper that a minimum of four years' notice would better complement the National Energy Guarantee.

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51 Alinta, Submission on the draft determination, p. 1.
52 ENA, Submission to the draft determination, p. 1.
53 ibid, p. 2.

3.3.5 Final assessment

The Commission notes Energy Network Australia's argument in support of five years' notice. In particular, the Commission agrees with Energy Networks Australia that given technological developments, some forms of generation (particularly renewables) can be constructed and commissioned faster than transmission takes to be built. Some of these timeframes are driven by other aspects that are associated with large infrastructure build such as constructing transmission, like obtaining development approvals, environmental approvals and the procurement of easements.

Considering ways to manage the coordination of generation and transmission investment is part of the ESB's work on developing a work plan to action the Integrated System Plan; as well as the Commission's Coordination of generation and transmission investment review. The ESB and the AEMC will be reporting to the COAG Energy Council on these matters in December 2018.

The Commission has considered whether or not to extend the notice of closure to five years. The Commission remains of the view that generators should be obligated to provide a minimum of three years' notice of closure for the following reasons:

- There are a number of factors that will influence a generator's decision to close, most notably, the economics associated with operating in the wholesale market. These factors are unlikely to be known or certain five years in advance. Requiring generators to commit to a five year closure date, may actually create greater inefficiencies in the market, rather than reduce them. For example, if a generator made a decision to close in five years' time, once circumstances change, this decision may turn out to be "wrong". Under the NER, generators are required to provide expected closure years for every scheduled and semi-scheduled generator and keep them up to date. Therefore, extending the timeframe may actually increase costs.
- There is nothing to stop a generator providing *more* than three years notice of closure e.g. Liddell provided seven years notice. Where the majority of generators are publicly traded companies, these will have information disclosure obligations and so as soon as the decision is made this will have to be notified to the market.
- Through both the Finkel Review, as well as earlier consultations in this process, all stakeholders have supported three years' notice.
- Issues associated with coordinating transmission planning and generation decisions are being considered through the Energy Security Board, and Commission's CoGATI review, described above.

Therefore, the Commission has decided to maintain the position that was expressed in the draft determination to require generators to provide three years' notice of closure.

3.4 Defining closure

3.4.1 Proponent's view

The rule change request did not define closure but tied the notice of closure obligation to the requirement in rule 2.10.1(a) for a person to notify AEMO in writing that "it wishes to cease

to be registered in any category of *Registered Participant* or that it wishes to terminate any of its classifications of *loads*, *generating units*, or *network services*".

The proposed rule change would tie the notice of closure obligation to any request from a scheduled or semi-scheduled generator for an existing classification of a generating unit to be terminated.

3.4.2 Stakeholders' views of the proposed rule change

Eleven stakeholders commented on this subject and they expressed a range of views.[54]

AEMO was interested in the Commission exploring the definition of closure and obligations that should apply in respect of other decisions such as mothballing or partial retirement.[55] The ACTU felt this was particularly important with respect to the scenario of mothballing:[56]

> As you would be aware, Swanbank E Power Station closed in 2014 and was re-commissioned for operation in late 2017, after three years being mothballed. How the three-year closure rule applies in these types of circumstances, both prior to any mothballing or temporary closure, and afterwards must be clearly understood.

The ASU was also concerned about the treatment of mothballing but also wanted to know what would happen if a generator gave notice of closure due to market indicators only to find itself operating profitably when it was supposed to close.[57]

Some stakeholders defined closure as having a particular permanence:

- AusNet Services considered closure should be defined to mean an intended strategy of non-participation in the energy market on an enduring basis.[58]
- The DoEE suggested "the normal understanding of the term 'closure' should be used in the context of this rule change, that is, capacity that will be entirely withdrawn from the market and not able to return in the event of market changes, directions from AEMO or other circumstances."[59]
- In Origin's view, "closed" should describe a generating unit/station that is unable to be recalled and operate.[60]

Similarly, AGL felt the main element the definition should capture is a measure of certainty:[61]

> In order to provide the market with appropriate incentives to replace lost capacity, an accurate reflection of the withdrawal of plant is necessary. It would be a sub-optimal outcome if a closure would potentially trigger new investment, only for uncertainty

54 ACTU, AEMO, AGL, ASU, AusNet Services, DoEE, Department of the Premier and Cabinet of the South Australian Government, Energy Networks Australia, ETU, Origin, Snowy Hydro.
55 AEMO, Submission to the consultation paper, p. 3.
56 ACTU, Submission to the consultation paper, pp. 2-3.
57 ASU, Submission to the consultation paper, p. 2.
58 Ausnet Services, Submission to the consultation paper, p. 2.
59 DoEE, Submission to the consultation paper, p. 3.
60 Origin, Submission to the consultation paper, p. 2.
61 AGL, Submission to the consultation paper, p. 2.

over the actual exit of that generator to exist.

Energy Networks Australia asked for clear guidance on some specific circumstance, such as, a generator that had provided three years notice of closure that limited or stopped making generation bids entirely for a significant period of time before the closure date to avoid bringing a closure date forward.[62] The ETU raised similar questions.[63] Snowy Hydro asked if the rule change was equivalent to a mandatory supply requirement.[64]

The Department of the Premier and Cabinet of the South Australian Government suggested the Commission may wish to consider how mothballing might be incorporated or whether the plant availability reporting obligations were sufficient.[65] On the other hand, Energy Networks Australia did not want the rules to be prescribed in a fashion that would obligate generators to continue generating until the expected closure date if it is making losses and early closure is the best option.

Finally, AGL was concerned accountability could be confused where the registering entity and operator may not necessarily be the owner of the relevant plant. For instance, a registered participant operating a generator on behalf of the owner of that facility may be informed with less than the required notice about that owner deciding to close that station.

3.4.3 Draft determination

The Commission decided to adopt the drafting provided by the proponent in the rule change request because it agreed with the views of stakeholders and the proponent that closure is about permanently withdrawing the ability to supply electricity to the market from a registered generating unit. However, on the suggestion of AEMO, the proposed drafting was altered to remove any impression that the requirement to terminate registration of a generating unit is voluntary. Under clause 2.10.1(a)(2), a person who is a scheduled generator or semi-scheduled *must* (not may) notify AEMO in writing if it wishes to terminate any of its classifications of generating units.

The rule drafting ties the decision to close a generating unit or station to a requirement for a generator to notify AEMO of the date it wishes to terminate the classification of a generating unit and (in the case of a market generator) cease to supply electricity or trade directly in the market. After discussions with AEMO, the Commission understands that AEMO currently becomes aware a generating unit or station is unavailable from the information disclosure obligations under the ESOO and PASA provisions in the rules. Generators do not normally notify AEMO of an intention to terminate a classification if there is a chance the generating unit might resume generating at a later date. Doing so would require the generator to restart the classification process, which might require retesting and would revoke any grandfathering of technical requirements/performance standards.

62 Energy Networks Australia, Submission to the consultation paper, p. 3.
63 ETU, Submission to the consultation paper, p. 5.
64 Snowy Hydro, Submission to the consultation paper, pp. 2-3.
65 Department of the Premier and Cabinet of the South Australian Government, Submission to the consultation paper, p. 2.

The Commission decided not to expand the obligation to provide notice of decisions to mothball or otherwise temporarily withdraw generating units for two reasons:

1. it would change the voluntary nature of generator engagement with the market
2. decisions to temporarily withdraw generating capacity are reversible if market conditions become more favourable.

While the Commission expects market participants to continue to notify the market of these decisions through the ESOO and PASA provisions in the rules, the Commission agrees with the proponent and the Finkel Panel that the focus of the rule change is to provide market participants with an expectation of three years notice of decisions to permanently close generating units.

The rule makes such a distinction because a decision by a generator to permanently close a power station or generating unit is generally based on major engineering considerations related to the end of life of the assets and so provides a distinctly more significant reliability threat, signal and expectation of action than a decision by a generator to temporarily withdraw. The rule change is designed not to discourage but to supplement the existing requirements for generators to continually notify AEMO of changes in generation availability.

When a generator withdraws generation temporarily, it is still obliged to provide AEMO with three years notice of closure. Other existing frameworks, like the PASA provisions in the rules, and AEMO's forecasting of necessary reserves, allow the reliability implications of such temporary withdrawals of capacity to be addressed.

For these reasons, the Commission was satisfied that the draft rule should concern itself with providing clear market expectations of the notice period expected when generators are considering only permanently withdrawing generation from the market.

The Commission noted AGL's concern about confusion of accountability when there are multiple parties (e.g. operator, owner, registered participant). The Commission is satisfied that the registered participant, (which includes registered intermediaries) is the correct party on which to place the obligation to provide notice of closure, and the expected closure year. Just as it is for other obligations in the rules, how notice of closure is handled between the parties in their commercial arrangements is a matter for them. Circumstances may transpire which could force the registered participant to provide AEMO less than three years notice of closure as a result of multiple party ownership or related issues. Such a notice would be permitted under the draft rule if the circumstances causing an early notice were beyond the registered participant's reasonable control and where it could not have reasonably foreseen the occurrence of the event.

3.4.4 Stakeholder comments on the draft rule

Only Origin specifically commented on this matter. It agreed that the end of registration is the most straightforward way of describing the closure of generators and would allow mothballing when appropriate.[66]

66 Origin, Submission to the draft determination, p. 1.

3.4.5 Final assessment

Given submissions to the draft determination supported the Commission's position, the Commission has decided to retain the approach and wording of the draft rule. As described in section 3.1, the final rule therefore ties a generator's intention to close to an obligation to:

- notify AEMO of an intention to cease to be registered in any category of registered participant or
- terminate any of its classifications of generating units (and for a market generator, cease to supply electricity or trade directly in the market).

The Commission remains of the view that it expressed in the draft determination that it is not appropriate to extend the scope of the rule change to constrain decisions by generators to place generating units into dry storage (i.e. mothball them) or to otherwise make them temporarily unavailable. As noted in section 1.3, until their classification is terminated, generators are expected to continue to maintain procedures and records consistent with the NER or "good electricity industry practice" and so their generating units comply with the relevant generator performance standards, regardless of their availability. The AER has issued guidance to participants about what it expects in relation to this from a compliance and enforcement point of view.[67]

Also, until their classification is terminated, AEMO can direct them to generate if AEMO is satisfied that it is necessary to do so to maintain or re-establish the power system to a secure operating state, a satisfactory operating state, or a reliable operating state.[68] Thus, choosing to place a generating unit into dry storage does not move it oustide the ambit of AEMO's directions power.

3.5 Provision for changing the closure date

3.5.1 Proponent's view

The rule change request did not include a provision for generators to amend a previously notified expected closure year or closure date.

3.5.2 Stakeholders' views of the proposed rule change

The ACTU included an example of a generator that notifies AEMO of an intended closure date three years in advance. Subsequent to this notification, at the end of year two, the generator notifies AEMO that it wishes to extend its closure date another year (i.e. four years from original notification).[69] The ACTU suggested this might be compliant with the proposed rule change as the notification is greater than three years.

67 AER, *Generator performance standards information booklet*, https://www.aer.gov.au/wholesale-markets/market-guidelines-reviews/generator-performance-standards-information-booklet, August 2013.

68 NER, cl. 4.8.9(1).

69 ACTU, Submission to the consultation paper, p. 2.

3.5.3 Draft determination

The Commission agreed that the rule drafting should accommodate amendments to expected closure years and closure dates and clarified the draft rule to allow this to occur.

3.5.4 Stakeholder comments on the draft rule

The Commission received two comments from stakeholders (South Australian Department of Energy and Mining, AGL) on the provision.

The South Australian Department of Energy and Mining supported the draft determination's clarification in clause 2.10.1(a)(2), that if a generator amends a closure date, the three years' notice requirement applies from the date of the initial notice given as this would avoid potential misuse of the amendment provision.[70]

AGL considered the draft rule could express the intention more clearly and proposed the following amendment to draft clause 2.10.1(c2): "The closure date or any amended closure date must, in respect of a Scheduled Generator or Semi-Scheduled Generator, be a date no earlier than the date that is three years from the date of the **first** notice given under paragraph (a)(2)."[71] It argued that this amendment would "clarify that a generator may amend its closure date without having to provide another full three years notice".

3.5.5 Final assessment

The Commission agrees with these stakeholders that the rule could express the intention more clearly.

However, the Commission does not consider that the wording proposed by AGL would address the problem. By tying the amendment of the closure date to the date of the first notice, it could create undesirable scenarios. For example, if a generator notifies AEMO of its intention to close ten years in advance then three years after that event the generator could amend its closure date to bring forward the closure date by up to seven years.

Consequently, the Commission has decided to clarify the requirement for providing adequate notice by specifying it separately for the first and subsequent amended closure dates. The first notified closure date for a scheduled or semi-scheduled generating unit "must be no earlier than three years from the date of the notice given under subparagraph (a)(2), except where the relevant *Generator* has applied for, and is granted an exemption by the *AER* under paragraph (c4)".

Clause 2.10.1(c3) provides that an amended notice may extend a previously provided closure date, but must not specify a date that is "earlier than the most recent closure date provided to AEMO under paragraph (a)(2)" except where "the amended closure date is no earlier than three years from the date the amended notice is provided to AEMO" or the generator "has applied for, and is granted, an exemption by the *AER* under paragraph (c4)".

70 South Australian Department of Energy and Mining, Submission to the draft determination, p. 1.

71 AGL, Submission to the draft determination, p. 2.

3.6 Compliance and penalties

3.6.1 Proponent's view

As noted in section 3.1, the rule change request focussed on enhancing the information available to AEMO and the market in relation to generator closures.

The rule change request provided that a closure date can be earlier than three years from the date the notice is given under proposed clause 2.10.1(c2). Clause 2.10.1(c3) would allow generators to notify AEMO of a closure date earlier than three years from the date of the notification date because "an event that is beyond the reasonable control of the relevant Generator has occurred and the occurrence of the event (or of an event of a similar kind) could not reasonably have been foreseen by the relevant Generator".

The rule change request was silent on the question of the rule changes being civil penalty provisions. The requirement for generators to notify AEMO of their intention to close is not a civil penalty provision in the National Electricity (South Australia) Regulations. However, the rule change proposal for scheduled and semi-scheduled generator to notify AEMO of expected closure dates amends provisions of the Project Assessment of System Adequacy (rule 3.7), which already contain civil penalty provisions.

3.6.2 Stakeholders' views of the proposed rule change

In the consultation paper, we asked stakeholders if civil penalties should apply in relation to the proposed changes.

Five stakeholders responded and they held a range of views.[72]

AGL suggested the imposition of a penalty based on an assessment of whether an unforeseen event is beyond the reasonable control of a generator would be problematic and could potentially deter investment.[73] It argued that, once the provisions were in place, significant reputational damage would likely occur in the instance that a generator closed without providing the required notice.

AEMO suggested the notice obligation be distinct from registration provisions and could be subject to civil penalties, consistent with the Finkel Review recommendation that generators should provide a "binding notice of closure".[74]

AusNet Services was uncertain the reporting obligation was readily enforceable.[75]

The DoEE felt that civil penalties should apply where there is the potential for significant detriment to consumers, the operation of the market or the operation of the electricity system arising from a breach of a provision.[76] Given the potential for detriment from rapid retirement of generation, it suggested civil penalties were appropriate for breaches of these new provisions.

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72 AEMO, AGL, AusNet Services, DoEE, Origin.
73 AGL, Submission to the consultation paper, p. 1.
74 AGL, Submission to the consultation paper, p. 1.
75 Ausnet Services, Submission to the consultation paper, p. 2.
76 DoEE, Submission to the consultation paper, p. 2.

Origin felt the existing compliance provisions should apply to the new rules.[77]

3.6.3 Draft determination

The Commission cannot create new civil penalty provisions. However, it may recommend to the COAG Energy Council that new or existing provisions of the NER be classified as civil penalty provisions.

The Commission considered the obligation on the scheduled and semi-scheduled generators to provide three years' notice of closure was important for the transparency, predictability, efficiency of investment in and reliability of generation capacity in the NEM. Therefore, the Commission decided a civil penalty would be appropriate to make up for the detriment that flows from generators providing inadequate notice of closure.

Therefore, the draft determination included a recommendation that two new clauses be classified as civil penalty provisions:

- proposed new clause 2.10.1(c1) in the NER, which requires scheduled and semi-scheduled generators to notify AEMO of the date they intend to terminate the classification of a generating unit and, in the case of a market generator, cease to supply electricity or trade directly in the market
- proposed new clause 2.10.1(c2) in the NER, which requires scheduled and semi-scheduled generators to specify a closure date no earlier than three years from the date the closure date is provided.

The Commission noted that the draft rule would amend clause 3.7.2(d) of the NER, which is currently classified as a civil penalty provision under NER Schedule 1 of the National Electricity (South Australia) Regulations. The Commission considered that this clause should continue to be classified as a civil penalty provision and therefore did not propose to recommend any change to their classification to the COAG Energy Council.

3.6.4 Stakeholder comments on the draft rule

The Commission received comments from two stakeholders (Alinta, AGL) on the issue of compliance and appropriate penalties.

Alinta believed it was unnecessary for the COAG Energy Council to classify these rules as civil penalty provisions.[78] In its view, the reputational damage associated with failing to provide adequate closure notice already represents a strong enough incentive to meet the compliance objectives of the rule.

AGL also did not support making these clauses civil penalty provisions:[79]

> AGL does not consider draft clause 2.10.1(c2) should be a civil penalty. There are uncertain interactions between draft clause 2.10.1(c2) and the exception in draft clause 2.10.1(c3) (which allows a generator to provide less than three years notice of

77 Origin, Submission to the consultation paper, p. 2.
78 Alinta, Submission to the draft determination, p. 2.
79 AGL, Submission to the draft determination, p. 2.

closure where there is an unforeseen event beyond its reasonable control). This assessment is problematic for generators as they cannot be certain that an incident will be found in their favour by the regulator. Making clause 2.10.1(c2) a civil penalty further increases risk and may deter certain types of investment.

AGL provided two examples to support its argument:[80]

- An operator of a generator may become aware or begin to reasonably suspect that a closure is possible. However, it is unable to provide AEMO with a closure date until the owner of the generator makes the formal decision that closure is to proceed. If this occurs within the three-year notice period, it appears that the operator of the generator would be in breach of the rule and be liable for the civil penalty.
- Another situation in which the civil penalty may result in inefficient outcomes is where a generating unit is being "run to failure". In this case the generating unit is maintained for safety, but no work is completed to extend its life (as this would be inefficient). Under the draft rule, the generator would provide its best conservative expected closure date, but there is no way to ensure that the generating unit does not fail before this. The civil penalty may result in generating units closing much earlier than they might otherwise close to avoid the risk of not meeting the stated closure date.

3.6.5 Final assessment

Noting points made both for and against, the Commission remains of the view that a civil penalty is appropriate to make up for the detriment that flows from generators providing inadequate notice of closure.

In relation to the recommendation of civil penalties, the Commission does not consider that reputational damage would be sufficient to prevent non-compliance. In addition, the Commission has sought to address the concerns of AGL through amending the drafting of the clauses to improve clarity, such as through the provisions around how generators can gain exemptions as discussed below.

The Commission remains of the view that the following clauses in the final rule should be civil penalty provisions, along with additional clause 2.10.1(c3), which previously formed part of clause 2.10.1(c2), and will recommend so to the COAG Energy Council:

- clause 2.10.1(c1) in the NER, which requires scheduled and semi-scheduled generators to notify AEMO of the date:
  - a non-market generator intends to terminate the classification of a generating unit
  - a market generator intends to terminate the classification and cease to supply electricity or trade directly in the market
- clause 2.10.1(c2) in the NER, which requires the scheduled generator or semi-scheduled generator's first closure date to be no earlier than three years from the date the notice is

80 ibid.

provided to AEMO in accordance with subparagraph (a)(2), except where the relevant Generator is exempted by the AER under paragraph (c4).

- clause 2.10.1(c3) in the NER, which requires a scheduled generator or semi-scheduled generator's amended closure date for a generating unit under (c1)(2):
  - to be a date later than the most recent closure date, or
  - if the date is earlier than the most recent closure date, a date that is no earlier than three years from the date the amended notice is provided to AEMO; or
  - where the generator has applied for and been granted an exemption by the AER under paragraph (c4).

The Commission considers that these clauses should be classified as civil penalty provisions since this provision of information to the market is important for promoting transparent and reliable outcomes in the NEM.

AGL's concerns about the uncertainty about how exceptions might be treated are considered in the next subsection.

3.7 Provision to exempt generators from providing three years' notice

3.7.1 Proponent's view

The rule change request included a new rule provision, clause 2.10.1(c3), that allowed a generator to specify a closure date earlier than three years from the date of the notice given under proposed clause 2.10.1(c2), where an event beyond the reasonable control of the generator has occurred, and where the occurrence of the event could not reasonably have been foreseen by the generator.

3.7.2 Stakeholders' views of the proposed rule change

In the consultation paper, the Commission asked stakeholders if it was appropriate to provide exceptions to the requirement for a generator to provide three years notice in response to unforeseeable events beyond the reasonable control of the generator.

Seven stakeholders[81] commented on this provision and all except the ETU supported it. The ETU felt the "beyond the reasonable control" exemption provisions of the rule change would create even greater uncertainty as to when a generator would actually close.[82]

Six stakeholders[83] suggested a greater degree of prescription but for opposing reasons. Two stakeholders wanted more prescription to reduce the chance of ambiguity or manipulation of generators:

- The DoEE argued it was important for the provision to tightly define exceptions to prevent manipulation or gaming.[84] It suggested additional provisions could be added similar to the rebidding civil penalty provision (r. 3.8.22A), such that information about

81 ACTU, AEC, DoEE, ERM Power, ETU, Origin Energy, Snowy Hydro.
82 ETU, Submission to the consultation paper, p. 5.
83 AEC, ACTU, DoEE, ERM Power, Origin Energy, Snowy Hydro.
84 DoEE, Submission to the consultation paper, p. 2.

closure dates, including closure notifications, must not be false, misleading or likely to mislead. Breaches of these requirements should be subject to a civil penalty, with the AER using its powers to investigate a potential breach.

- The ACTU said it would like to see a definition of 'could not reasonably have been foreseen' included.[85] For example, if that were meant to apply to a generator ceasing to function and closing due to a catastrophic weather event, act of war or similar, that would be very different to unforeseen changes in the financial circumstances of the generator owner or owners, as has occurred with Northern and Hazelwood power stations.

Four stakeholders wanted more prescription to ensure generators were not unreasonably hamstrung from making commercial decisions:

- Origin Energy felt that, should the rule be applied in this form, "there is a significant risk that a generator may be required to operate even in circumstances where it is not commercially prudent to do so".[86] It felt it was "essential that Rule 2.10.1(c3) is revised to provide a greater level of prescription around how the phrases 'beyond the reasonable control' and 'not reasonably have been foreseen' could be interpreted". It supported the inclusion of the range of circumstances under which a closure notification date could be brought forward.
- The provision was welcomed by Snowy Hydro.[87] However, it was concerned that the rule change clause does not go far enough to prevent generators incurring unnecessary costs because they could not bring a closure date forward.
- The AEC suggested the drafting should clarify, for the avoidance of doubt, that duties of directors under the Corporations Act 2001 (Cth) and other acts such as occupational health and safety and environmental protection acts should take priority over this National Electricity Rule.[88]
- Similarly, ERM Power suggested that, while the proposed rule considers events which may occur at specific times, such as a catastrophic plant failure, directors will also become aware of progressive changes in circumstance that will require them to act pursuant to other obligations.[89] Therefore, it recommended expanding the definition of unforeseen events beyond the reasonable control of the generator in Clause 2.10.1(c3) to include changes in circumstances which might not be able to be linked to a specific event, and consider directors' responsibilities under other Acts.

3.7.3 Draft determination

The Commission acknowledged the concerns of these two opposing sets of stakeholders: those that wish to ensure the provision is tightly defined to prevent "manipulation or gaming" and those that are concerned it is too tight to allow generators to provide less notice in appropriate circumstances where this is warranted.

85 ACTU, Submission to the consultation paper, p. 2.
86 Origin, Submission to the consultation paper, pp. 1-2.
87 Snowy Hydro, Submission to the consultation paper, p. 3.
88 AEC, Submission to the consultation paper, p. 1.
89 ERM Power, Submission to the consultation paper, p. 2.

After considering both points of view, the Commission formed the view that the provision should remain as drafted for two reasons:

1. It is unlikely a list of exceptions could be complete or tightly defined such that it would have a better chance of eliminating manipulation.
2. Consideration of directors' responsibilities under other Acts should be accommodated under the existing drafting of the provision. If it is reasonable to expect directors' other responsibilities and obligations will continue to keep the stations operationally and financially viable then the provision should apply after events cause directors to reach an expectation (reasonably held) that closure is necessary within three years.

In regard to ERM Power's concerns about progressive changes, the Commission's position was similar to its position on the interaction with other licences (see section 3.1.3). It acknowledged the circumstances of each generating unit and station may change over time. Generators would have to monitor those circumstances and events likely to bring forward the end of its life.

3.7.4 Stakeholder comments on the draft rule

The Commission received comments from five stakeholders (South Australian Department of Energy and Mining, Alinta, AGL, Origin, AER) on the issue of compliance and appropriate penalties.

The South Australian Department of Energy and Mining noted the interplay between clause 2.10.1(c3), which allows generators to provide less than three years' notice of closure, and the two preceding clauses being recommended as civil penalty provisions (c1 and c2):

> In the case of new clause 2.10.1(c3), to the extent that the specified circumstances have been satisfied, namely, that an event beyond the reasonable control of the generator has occurred, or it could not have reasonably been foreseen by the generator, it seems appropriate that this not be a civil penalty provision. However, it may be prudent to monitor the interplay of this new non-binding clause with the preceding clauses recommended to be classified as civil penalty provisions.

AGL was concerned about the uncertainty of the provision:[90]

> There are uncertain interactions between draft clause 2.10.1(c2) and the exception in draft clause 2.10.1(c3) (which allows a generator to provide less than three years notice of closure where there is an unforeseen event beyond its reasonable control). This assessment is problematic for generators as they cannot be certain that an incident will be found in their favour by the regulator.

Origin was concerned that uncertainty about whether a generator's specific circumstances are covered by the exemption in the rules may lead to a generator remaining open in an uneconomic fashion.[91] It argued that, in this situation, the generator would not only incur a

90 AGL, Submission to the draft determination, p. 2.
91 Origin, Submission to the draft determination, p. 2.

loss, but there could be market distortions that impact new investments which could otherwise be beneficial for system reliability. Therefore, Origin requested that the final rule provide guidance to generators on how to specify that unforeseen circumstances are the cause of an early closure before the nominated date.

The AER said the AEMC may like to consider an alternative approach that would allow registered participants to retire generation within the three year period only if the AER grants an exemption to do so.[92] The AER note that in order to provide clarity to the market on exemption criteria, the AER would be prepared to develop and publish guidelines in accordance with the rules consultation procedures, thereby allowing relevant stakeholders the opportunity to input to the development process.

The AER consider that the advantage of this approach would be that the circumstances under which an exemption may be granted would be subject to expert scrutiny, allowing all relevant factors to be taken into account. Otherwise, if brought before a court, the Rule would be subject to the court's legal interpretation, running the risk that the outcome of any potential enforcement action may not be in keeping with the original policy objective.

3.7.5 Final assessment

The Commission agrees with stakeholders that there was uncertainty about how the safeguard provision might operate under the draft rule. Clause 2.10.1(c3) of the draft rule was designed to safeguard those generators who need to exit at short notice where unforeseen circumstances arise. Therefore, the final rule seeks to address this uncertainty by:

- under clause 2.10.1(c4), the AER may, in accordance with guidelines issued from time to time by the *AER*, exempt any *Scheduled Generator* or *Semi-Scheduled Generator* from the requirement to provide three years' notice of closure or amendment of a notice of closure in accordance with paragraph (c2) and (c3)
- under clause 2.10.1(c5), the AER, in accordance with the rules consultation procedures:
  - must develop and *publish* guidelines referred to in paragraph (c4) that include the information to be provided by a *Generator* to the *AER* when requesting an exemption and procedures for handling requests for exemption received from *Generators*
  - may amend these guidelines from time to time
- under clause 2.10.1(c6), the AER may make minor and administrative amendments to the guidelines made under clause (c4) without complying with the rules consultation procedures.

The Commission considers that, given there are likely to be a wide range of scenarios in which a generator may apply to AER for an exemption, the guideline should not necessarily seek to cover all of these off. The Commission wishes to avoid scope for a generator to game these provisions by artificially recreating a scenario that they consider would gain them an exemption under the AER's guideline.

92 AER, Submission to the draft determination, p. 1.

Instead, sufficient detail should be provided in the guidance so that generators will be able to understand what they will have to do, what information they will have to provide, and what the process will be when they apply for an exemption, including considering whether information will be made public (the application and the decision, for instance). The Commission's expectation is that exemption applications would be public, consistent with the principle of transparency that underpins this rule.

The Commission considers that this is preferable to the draft rule for three reasons:

- It provides clarity and transparency to generators on how exceptions from providing three years' notice of closure will be handled. While it doesn't fully resolve AGL's concerns that generators cannot be certain that an incident will be found in their favour since the AER will assess exemptions on a case by case basis; requiring the AER to develop and maintain a guideline will provide certainty to generators as to *how* their exemption will be considered.
- Similarly, as recognised by the AER, it allows any exemptions to be considered on a case by case basis, subject to expert scrutiny, allowing all relevant factors to be taken into account. This also promotes flexibility, as the AER can take into account different circumstances that may arise as the market transitions.
- It also places full discretion with how the exemption would operate with the AER, which is appropriate and consistent with their broader compliance and enforcement role.

3.8 Proposed change to EAAP

3.8.1 Proponent's view

The proponent included a proposed change to the EAAP process (clause 3.7C(k)) to give the Reliability Panel the discretion to identify its own specific energy constraint scenarios for AEMO to study under the EAAP. This would broaden the nature of input AEMO receives in considering possible energy constraint scenarios.

3.8.2 Stakeholders' views of the proposed rule change

In the consultation paper, the Commission asked stakeholders to comment on this provision. Two stakeholders commented on the rule change proposal:

- Energy Networks Australia supported the change.[93] No reasoning was provided.
- AEMO recommended the proposed amendment to clause 3.7C(k) be modified to have AEMO consult with the Reliability Panel when developing scenarios.[94] This would be consistent with the approach specified in clause 3.9.3D(c) of the Rules, which AEMO is required to follow to obtain input from the Reliability Panel when developing the Reliability Standard Implementation Guidelines (RSIG) – that approach has proven to be both practical and beneficial to outcomes, while clearly leaving accountability for managing the RSIG (and in this case, EAAP) with AEMO.

93 Energy Networks Australia, Submission to the consultation paper, p. 5.

94 AEMO, Submission to the consultation paper, p. 3.

3.8.3 Draft determination

In line with the rule change request, the draft rule included a proposed change to the Energy Adequacy Assessment Projection (EAAP) process (clause 3.7C(k)) to give the Reliability Panel the discretion to identify its own specific energy constraint scenarios for AEMO to study under the EAAP. This change would broaden the sources of input AEMO receives in considering possible energy constraint scenarios.

3.8.4 Stakeholder comments on the draft rule

No one commented on the changes to the EAAP process proposed in the draft rule.

3.8.5 Final assessment

Given no submissions were received on this point in response to the draft rule, the Commission has maintained its position from the draft rule. Therefore, the final rule amends clause 3.7C(k)(1) to state that, when AEMO develops and publishes the EAAP guidelines, the guidelines must define scenarios that AEMO must study in preparing the EAAP, including any scenarios that the Reliability Panel has identified for study for the purposes of preparing the EAAP.

Given the key role that the Reliability Panel has in the reliability and security of the national electricity system; the Commission considers that it is appropriate that the Panel can provide scenarios that AEMO should study in the EAAP. The EAAP provides information on the impact of potential energy constraints, such as water storages during drought conditions or constraints on fuel supply for thermal generation, on supply adequacy in the NEM. It is important that the scenarios studied in this are representative, and so the Panel is likely to be well placed to suggest scenarios that should be studied in the EAAP. This will help to make sure the EAAP includes the most up to date information around potential energy constraint scenarios.

The Commission expects that the Panel and AEMO, through its membership of the Panel will have discussions about how this input will be provided.

3.9 Implementation and transition

3.9.1 Proponent's view

The proponent did not include any commentary on implementation and transitional arrangements in its proposed rule change request or rule drafting.

3.9.2 Stakeholders' views of the proposed rule change

Two stakeholders commented on implementation or transitional arrangements for existing generators.

AEMO also considered how best to store expected closure years and closure dates and suggested maintaining the register of expected closure dates through generating unit bid and offer validation data.[95] It reasoned that this would minimise implementation and administrative costs by avoiding the need for modifications to PASA and associated processes for intermittent generators, noting that the MT PASA process only covers a two-year horizon, which is shorter than the proposed minimum three year notice required. However, after considering this further, AEMO have since indicated to us that MT PASA may not be the best platform for storing expected closure years and closure dates.

AEMO suggested the requirement on new generators at the time of registration (proposed new clause 2.2.1(e)(2A)) could be supplemented by a transitional provision to require the provision of anticipated closure dates for existing generating units.[96]

The Department of the Premier and Cabinet for the South Australian Government also supported a transition provision to capture all existing generation so the drafting requiring generators to notify AEMO only if the expected closure year changes could fulfil its intention.

3.9.3 Draft determination

The Commission acknowledged in the draft determination that:[97]

- stakeholders will require some time to prepare for the introduction of new requirements, and the application of the draft rule requirements to new activities and information.
- AEMO will also be required to update its registration and Electricity Statement of Opportunities (ESOO) and Projected Assessment of Supply Adequacy (PASA) administration processes to reflect the new requirements in the draft rule.

Consequently, the draft determination proposed allowing scheduled and semi-scheduled generators a period of six months, from the date the rule is implemented, for generators to notify AEMO of:

- expected closure years for existing scheduled and semi-scheduled generating units
- closure dates for those scheduled and semi-scheduled generating units that are to be closed within three years of the end of the six month period, without requiring the closure to comply with the beyond reasonable doubt/foreseeable requirement.

3.9.4 Stakeholder comments on the draft rule

Three stakeholders commented on the implementation and transitional arrangements (AGL, South Australian Department of Energy and Mining, AEMO).

AGL considered the provisions proposed in the draft determination to be sufficient time to comply with the new requirements.[98] AGL noted that on 6 June 2017, it announced a progressive schedule to mothball the aging Torrens A generating units, starting from 2019. Given these generating units will likely fall under the transitional arrangements in the rule

95 ibid.
96 AEMO, Submission to the consultation paper, pg. 3.
97 AEMC, Generator three year notice of closure draft determination, p. 23.
98 AGL, Submission to the draft determination, p. 3.

change, AGL is seeking clarification that generators that are already transitioning to closure may amend the closure date, similar to generators that provide a full three years' notice of closure under draft clause 2.10.1(c2). AGL also suggested that the final rule explicitly allow generators that provide less than three years' notice of closure under the transitional rules to amend the closure date to a later date (but not an earlier date).

The South Australian Department of Energy and Mining supported the incorporation of transitional provisions to ensure the provision of the expected closure years by all existing generators, not only by new registrants. It considered they contributed to a more meaningful proposal, more in keeping with the intent of the Finkel Panel's recommendation and allowing for much earlier realisation of benefits.[99]

AEMO considered that the medium term PASA and unconstrained intermittent generator forecast (UIGF) processes were not the most efficient vehicles for collecting and reporting generator closure intentions for two reasons:[100]

1. Mismatched forecast horizon: the MT PASA and UIGF processes produce forecasts for a two-year horizon, which is less than the three years' notice that will be required prior to closure. That is, the formal notice of closure (which supersedes the expected closure year) would have been provided at least one year beyond the MT PASA and UIGF forecast horizon.
2. Frequency of updates: The expected closure year of a generating unit would be expected to change rarely during its operating life, whereas the MT PASA and UIGF processes are highly automated processes that operate weekly.

Instead, AEMO suggested generators should notify AEMO of changes to their expected closure years and closure dates as part of the ESOO process:

- Clause 3.13.3(q)(3) of the NER requires AEMO to prepare and publish information on planned plant retirements as part of the ESOO.
- Clause 3.13.3(r)(3) of the NER requires AEMO to publish significant new information on planned plant retirements, as soon as practicable after the new information becomes available to AEMO.
- Clause 3.13.3(t) of the NER requires scheduled generators and semi-scheduled generators to provide AEMO with any information listed under clause 3.13.3(q) of which they are aware. This is a civil penalty clause.
- An additional clause could be added that requires scheduled generators and semi-scheduled generators to update or confirm the expected closure year at least once per year.

AEMO already receives other information from generators via a web-based online system and it publishes updates of the information at least every six months (with additional publication when significant new information becomes available) on its Generation Information web

99 South Australian Department of Energy and Mining, Submission to the draft determination, p. 1.
100 AEMO, Submission to the draft determination, p. 2.

page. AEMO considers that these processes are well-suited to a new requirement to publish and maintain the register of expected closure years.

AEMO advised that it can implement the proposed ESOO-Iinked process earlier than would be possible if modifications are required to MT PASA and UIGF processes. It believes it can add the necessary input fields to enable updates to the expected closure year within the timeframes proposed in the draft determination.

In contrast, AEMO expects that implementing the system changes to support implementation via MT PASA and UIGF processes could not commence until the second half of 2019 due to AEMO's existing schedule of modifications to its medium-term forecasting systems. In addition, AEMO would expect that market participant systems would likely require updates if the MT PASA and UIGF process changes are approved.

3.9.5 Final assessment

The Commission acknowledges AEMO's submission, which states that if the rule was implemented through the MT PASA process, then the changes to give effect to this could not commence until the second half of 2019 due to AEMO's existing schedule of modifications to its medium-term forecasting systems. The Commission agrees with AEMO that a delay of that nature to the start of this rule is undesirable.

Therefore, the Commission considers that the information should be collected directly, and published as standing data but also as part of the ESOO. The Commission considers that making this change allows the rule to come into effect sooner. Further, based on informal discussions with participants, collecting information directly, and published through the ESOO is likely to be preferable for market participants as well.

The Commission was concerned that since the ESOO is prepared only once a year, there could be delays in updated information on revised closure dates being provided to the market. This was a concern shared by stakeholders as well i.e. that the requirement on AEMO to publish the information on expected closure years and closure dates under the ESOO could lead to far less regular updates than the weekly timetable that is the feature of the MT PASA provisions. The Commission has addressed this concern in the final rule by requiring AEMO to upload any revised closure dates to their website as soon as practicable after receiving the updated information from generators. The Commission considers that this will still result in timely provision of information to the market.

Therefore, the obligations to collect the expected closure years and closure dates are contained in the standing data provisions rather than the MT PASA provisions. This retains the level of transparency of the information contained in the previous drafting but achieving it earlier and at lower cost.

Consequently, the final rule makes the following changes to the draft rule:

- Transferred requirements for generators to notify AEMO of changes to expected closure years and closure dates from MT PASA to standing data and ESOO provisions (generators are still required to notify AEMO of how it affects their availability, in accordance with their MT PASA obligations).

- Required AEMO to publish any amended expected closure years on AEMO's website as soon as practicable after it receives the amendment, and reflect any significant information received relating to *expected closure year* and *closure dates* through the ESOO publishing requirements under the NER.

Finally, the Commission has worked with the AER and AEMO on the transitional provisions required for the rule change. It has worked with the AER to determine the minimum time it will require the AER to develop, consult on and publish its first guideline that will establish the process and criteria for issuing notice of closure exemptions. The Commission has also sought advice from AEMO to confirm when it will be able to accept and publish information on expected closure years and closure dates.

Consequently, the transitional provisions have been changed to the following:

- allow AER until 31 August 2019 to develop, consult on and publish the notice of closure exemption guideline.
- generators are not required to comply with clauses 2.10.1(c1) and (c2) (the obligation to provide a notice of closure) until 1 September 2019 (the day after the notice of closure exemption guideline must be published by the *AER)*
- allow AEMO until 1 March 2019 to have their systems updated to accept and publish expected closure years and closure dates.
- all *generators* that are registered on or before 2 March 2019 are taken to have complied with clause 2.2.1(e)(2A)(i) if they provide the expected closure year as soon as practicable from that date.

ABBREVIATIONS

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
Commission	See AEMC
EAAP	Energy adequacy assessment projection
ESOO	Electricity statement of opportunities
MCE	Ministerial Council on Energy
MT PASA	Medium term projected assessment of system adequacy
PASA	Projected assessment of system adequacy
NEL	National Electricity Law
NEO	National electricity objective
NERL	National Energy Retail Law
NERO	National energy retail objective
NGL	National Gas Law
NGO	National gas objective
UIGF	Unconstrained intermittent generation forecast

A LEGAL REQUIREMENTS UNDER THE NEL

This appendix sets out the relevant legal requirements under the NEL for the AEMC to make this final rule determination.

A.1 Final rule determination

In accordance with s. 102 of the NEL, the Commission has made this final rule determination in relation to the rule proposed by the Chair of the ESB, Dr Kerry Schott AO.

The Commission's reasons for making this final rule determination are set out in section 2.3 and chapter 3.

A copy of the more preferable final rule is attached to and published with this final rule determination. Its key features are described in chapter 2.

A.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 s. 34 of the NEL as it relates to the operation of the national electricity system for the purposes of reliability of the system, and the activities of persons (including registered participants) participating in the NEM. Further, the more preferable final rule falls within the matters set out in Schedule 1 to the NEL as it relates to registration of persons as registered participants (Schedule 1, section 1) because the rule requires persons to provide expected closure year information for their generating units on registration.

A.3 Commission's considerations

In assessing the rule change request the Commission considered:

- its powers under the NEL to make the rule
- the rule change request
- submissions received during first round consultation
- the Commission's analysis as to the ways in which the proposed rule will or is likely to, contribute to the NEO.

There is no relevant Ministerial Council on Energy (MCE) statement of policy principles for this rule change request.[101]

The Commission may only make a rule that has effect with respect to an adoptive jurisdiction if satisfied that the proposed rule is compatible with the proper performance of AEMO's

101 Under s. [33 of the NEL/ 73 of the NGL/ 225 of the NERL] 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. On 1 July 2011, the MCE was amalgamated with the Ministerial Council on Mineral and Petroleum Resources. The amalgamated council is now called the COAG Energy Council.

declared network functions.[102] The more preferable final rule is compatible with AEMO's declared network functions because it does not affect those functions.

A.4 Civil penalties

The Commission cannot create new civil penalty provisions. However, it may recommend to the COAG Energy Council that new or existing provisions of the NER be classified as civil penalty provisions.

The Commission's final more preferable rule includes the addition of rules 2.10.1(c1), (c2) and (c3) into the NER, which the Commission is recommending to the COAG Energy Council as civil penalty provisions.

The Commission considers that the new provisions should be classified as civil penalty provisions because the provision of the notice of closure information to the market is important for promoting transparent and reliable outcomes in the NEM. The Commission also considers that the civil penalty provisions together should act as an effective deterrent against a generators failure to disclose pertinent closure information to the energy market.

A.5 Conduct provisions

The Commission cannot create new conduct provisions. However, it may recommend to the COAG Energy Council that new or existing provisions of the NER be classified as conduct provisions.

The final rule does not amend any rules that are currently classified as conduct provisions under the NEL or National Electricity (South Australia) Regulations. The Commission does not propose to recommend to the COAG Energy Council that any of the proposed amendments made by the final rule be classified as conduct provisions.

102 Section [91(8) of the NEL/ 295(4) of the NGL].

B EFFECT OF VARYING THE SIZE THRESHOLD

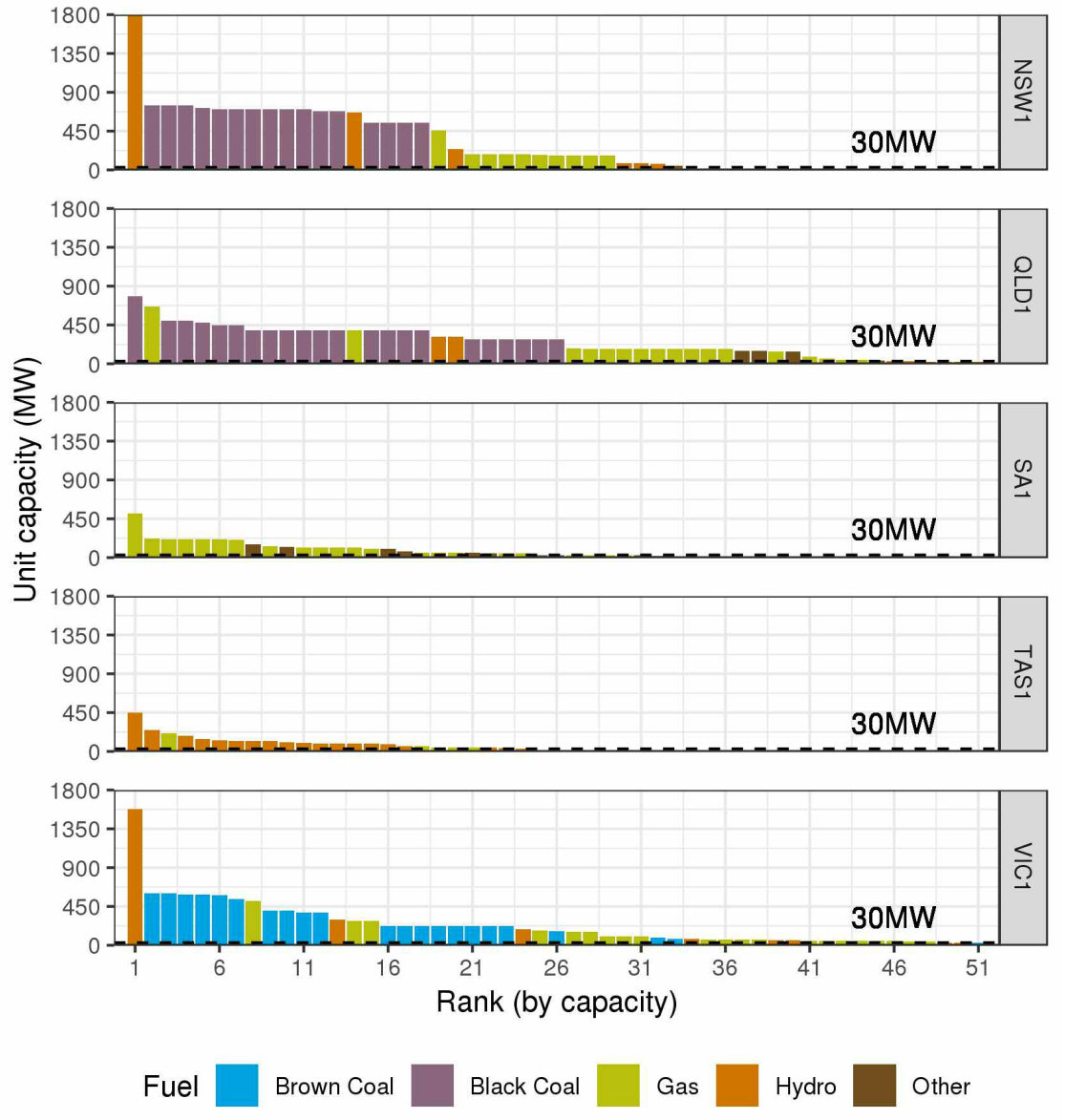
In this section, we provide an indication of the number and size of scheduled and semi-scheduled units in the NEM.

In particular, we highlight how a particular capacity threshold affects the number and type of generating units caught by the draft rule change. In the charts below, we have indicated a threshold of 30MW, which corresponds to a nominal threshold in the rules for being scheduled or semi-scheduled.

In Figure C.1, we show scheduled and semi-scheduled dispatch units in each region, in order of decreasing generating capacity. The colour of each bar indicates the fuel used by that dispatch unit.

A dispatch unit is equal either to the generating capacity of a generating unit or station. The largest dispatch unit in New South Wales, for instance, is Tumut 3 power station.

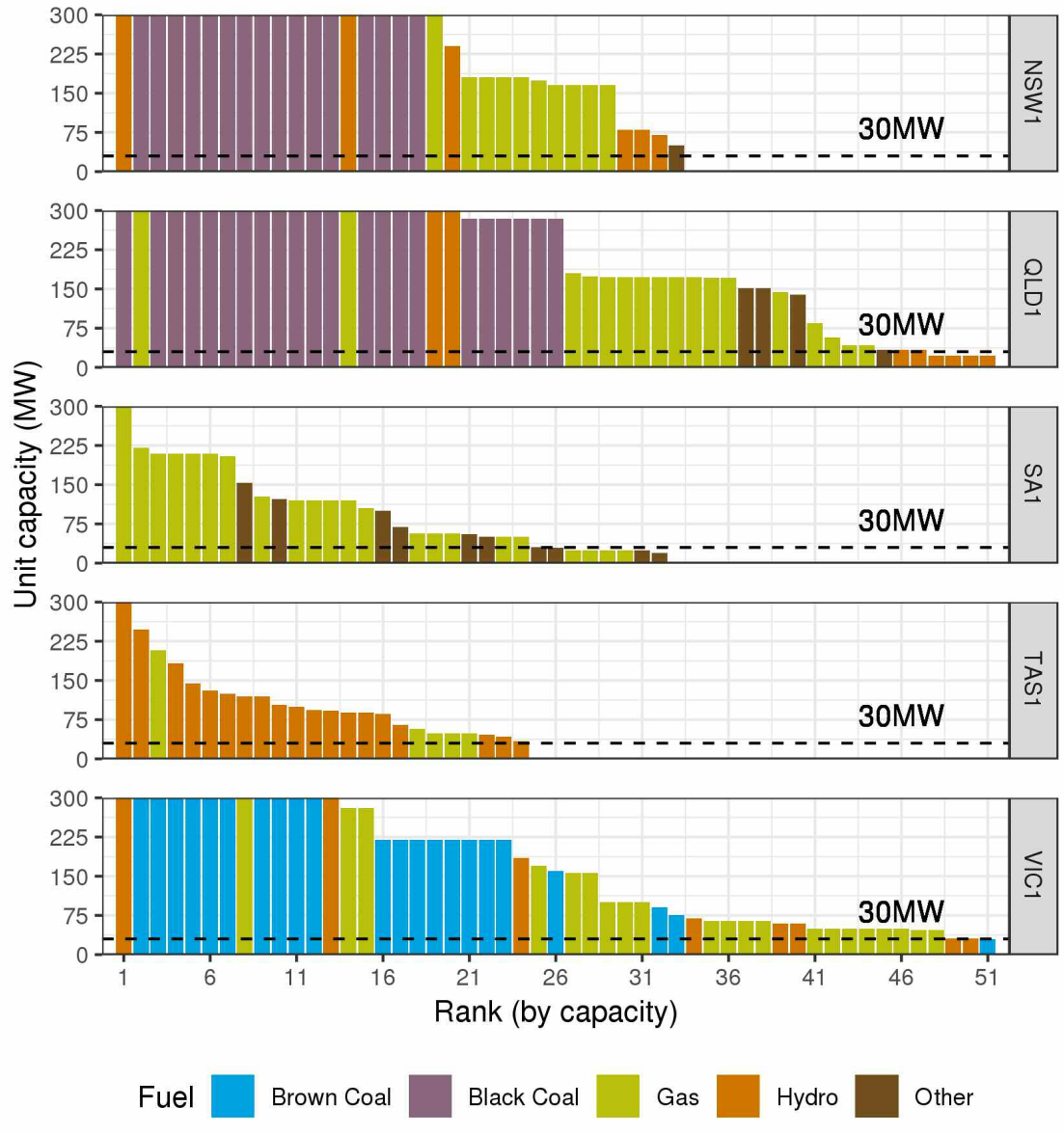
Figure B.1: Dispatch units by size, fuel type and region



Source: AEMC analysis based on MMS data

Due to the size of some units, it is worthwhile highlighting detail from the chart above that shows unit sizes 300 MW or lower.

Figure B.2: Dispatch units by size, fuel type and region (units below 300 MW)



Source: AEMC analysis based on MMS data