AEMC

RULE

Australian Energy Market Commission

## RULE DETERMINATION

# NATIONAL ELECTRICITY AMENDMENT (THRESHOLD FOR PARTICIPANT COMPENSATION FOLLOWING MARKET INTERVENTION) RULE 2019

**PROPONENT**

AEMO

19 DECEMBER 2019

## 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 Commission has made a final rule to change the $5,000 per trading interval compensation threshold which currently limits the payment of compensation to "directed participants" and "affected participants" when the Australian Energy Market Operator (AEMO) intervenes in the market. Directed participants are those compelled to provide services under direction, while affected participants are those dispatched differently due to a direction or activation of the reliability and emergency reserve trader (RERT).

2 The final rule will amend the NER so that the $5,000 threshold for additional compensation claims by directed participants will be applied per direction, rather than per trading interval; and amend the NER so that the $5,000 threshold for both automatically calculated affected participant compensation and additional compensation claims/disputes by affected participants will apply per intervention event, rather than per trading interval.

**3 Context and Background**

4 Directions and the RERT form part of the interventions framework in the National Electricity Rules (NER). This framework provides AEMO with the tools to intervene in the market for reliability purposes (e.g. in the event of a breach of the reliability standard) or for power system security purposes (e.g. to maintain voltage). Interventions are typically used as a last resort and include, for example, directing a generator to maintain system strength or using emergency reserves through the RERT.

5 In certain circumstances, intervention pricing is used to set prices in the NEM during an "AEMO intervention event" (encompassing the RERT and directions) to preserve market scarcity signals that would have existed had the intervention not occurred.[1] At the same time, there is a compensation framework to make sure that participants who have been directed by AEMO to provide services are not "out-of-pocket". This framework also compensates participants affected by the intervention in order to put them in the position that they would have been in but for the direction or RERT activation.

6 Where AEMO issues a direction, compensation is payable to both "directed participants"[2] (those parties to whom the direction was issued) and "affected participants"[3] (participants whose dispatch targets change as a result of a direction being issued or the RERT being activated). Where AEMO activates the RERT, compensation is only payable to "affected participants" – reflecting that, in relation to the RERT, there are no "directed participants". Instead, the party providing services under the RERT is compensated pursuant to the relevant contractual arrangements.

7 Following a direction to provide energy or market ancillary services, a directed participant is entitled to formula-based compensation[4] and may claim additional compensation if that amount is insufficient to cover its net direct costs and lost revenue. Under the current rules a

1 Clause 3.9.3(b) of the NER.

2 Clauses 3.15.7 to 3.15.7B of the NER

3 Clause 3.12.2(a)(1) of the NER.

4 Clause 3.15.7 of the NER.

minimum threshold of $5,000 applies per trading interval for additional compensation claims from directed participants.[5]

8 An affected participant is entitled to receive from, or required to pay to, AEMO an automatic compensation amount that puts it in the position that it would have been in had the intervention not occurred[6] and may submit a claim for additional compensation, or dispute its liability to repay revenue to AEMO, if it considers that its entitlement or liability should be redetermined.[7] A minimum threshold of $5,000 per trading interval applies to automatically calculated affected participant compensation,[8] and to claims for additional compensation.[9]

9 The cost of both affected and directed participant compensation is recovered from market customers and, ultimately, consumers in the region that benefited from the direction.

**10 Rule change process**

11 On 17 December 2018 AEMO submitted a rule change request which seeks to amend the $5,000 per trading interval threshold below which compensation is not payable to affected participants, and below which additional compensation cannot be claimed by directed participants.

12 AEMO considered that where an intervention event is of a long duration, the calculated participant compensation amount could far exceed $5,000 over the entire event, without breaching the $5,000 threshold in any individual trading interval. As such, AEMO considered the potential for material under-compensation creates operational and financial risks for participants.[10]

13 AEMO proposed the $5,000 threshold be amended so that, for both directed and affected participants, it applies to each intervention event rather than to each trading interval. It suggested that the proposed rule change would provide market participants with efficient incentives to support the reliability and security of the power system and strike a fair balance between the interests of consumers and market participants.[11]

14 In the draft determination published on 15 August 2019, the Commission determined that the rule change should be made in respect of the threshold for directed participant additional compensation claims but not in respect of the threshold for affected participant compensation. This was because, as discussed in the Final report[12] of the *Investigation into intervention mechanisms in the NEM* (*Interventions investigation* final report), the Commission recommended that affected participant compensation should only be payable in respect of interventions which trigger intervention pricing, and determined that (per the revised "regional reference node test" - RRN test) intervention pricing should not apply in connection with interventions to maintain system security.[13] Thus, if both changes are

5 Clause 3.15.7B(a4) of the NER.
6 Clause 3.12.2(a) of the NER.
7 Clause 3.12.2(f) of the NER.
8 Clause 3.12.2(b) of the NER.
9 Clause 3.12.2(i) of the NER.
10 AEMO, Electricity Rule Change Proposal, op cit, p. 5.
11 AEMO, Electricity Rule Change Proposal, op cit, p. 6.
12 AEMC, *Investigation into intervention mechanisms in the NEM, Final report*, 15 August 2019.

implemented, affected participant compensation would not be payable in connection with system security interventions.

15 The draft determination noted that system security directions would continue to be needed in South Australia until such as time as synchronous condensers are commissioned in mid to late 2020. Given the recommendation to narrow the circumstances when affected participant compensation is payable, the Commission did not consider it to be in the best interests of consumers to make the proposed rule as it applies to affected participants in the draft determination as this would increase the payment of compensation to affected participants at the expense of consumers. Based on analysis of the cost of affected participant compensation in connection with system strength directions in South Australia, the proposal to apply the $5,000 threshold on a per event rather than per trading interval basis could potentially result in a more than threefold increase in affected participant compensation costs.

16 On 14 September 2019, AEMO submitted a rule change request seeking to narrow the circumstances in which affected participant compensation is payable.[14] This actioned the recommendation in the *Interventions investigation* final report.

17 The Commission published a consultation paper on 24 October 2019 in relation to AEMO's rule change request.[15] The consultation paper noted the Commission's view in the final report that, since affected participant compensation is not payable where dispatch targets change due to constraints, and that dispatch targets in intervention pricing runs are both infeasible (for system security directions) and open to participant influence, affected participant compensation is not warranted in connection with system security interventions and nor is it in the interests of consumers. On 19 December 2019, the Commission published a final rule which narrows the circumstances in which affected participant is payable[16]

18 This change in circumstances enables the Commission to resolve the question of how the compensation threshold applies to both directed participants and affected participants in the final rule the subject of this determination. This is in line with the AEMO rule change request and, as such, the final rule is no longer a more preferable rule (as was the draft rule).

**19** **Final rule**

20 Specifically, the final rule will:

1. amend the NER so that the $5,000 threshold for additional compensation claims by directed participants will be applied per direction, rather than per trading interval; and
2. amend the NER so that the $5,000 threshold for both automatically calculated affected participant compensation and additional compensation claims/disputes by affected participants will apply per intervention event, rather than per trading interval;

13 AEMC, *Application of the regional reference node test to the reliability and emergency reserve trader, Draft rule determination*, 15 August 2019.

14 AEMO, Electricity rule change proposal, Application of compensation in relation to AEMO interventions, September 2019.

15 AEMC, *Application of compensation in relation to AEMO interventions*, Consultation paper, October 2019

16 AEMC, *Application of compensation in relation to AEMO interventions*, Rule determination, 19 December 2019.

21 The Commission recognises that the final rule may result in an increase in the quantity of compensation payable to directed participants, and that compensation costs are recovered from market customers and ultimately consumers. However, the Commission notes that there have been very few instances of directed participants lodging claims for additional compensation. Since April 2017, there have only been two claims for additional compensation in connection with the South Australian system strength directions. By contrast, as at 9 November 2019, 330 system strength directions have been issued to generators in South Australia to maintain system strength in the period since April 2017. Prior to system strength directions becoming frequent, only very few additional compensation claims had been lodged.

22 Further, where claims for additional compensation have been made, independent experts engaged by AEMO to assess the claims have on two occasions (out of a total of four additional compensation claims received since December 2016) applied the threshold as if it applied per event, rather than per trading interval. In practice therefore, the cost to consumers of increased directed participant compensation arising from this rule change is not expected to be significant.

23 Finally, the Commission considers that, where a participant has been compelled by a direction to provide services that are needed by the market, they should not incur loss as a result of the application of the per trading interval threshold. Retaining the current per trading interval threshold could have a detrimental impact on directed participants' financial position, particularly where directions occur frequently and comprise many trading intervals. This would not be in the long term interests of consumers, particularly noting that the participants which are directed to provide services have the technical ability to provide the services needed by the market, and have been selected for direction by AEMO consistent with its obligation under clause 4.8.9(b)(1) to minimise the cost associated with directions.

24 The Commission also recognises that the final rule considered in isolation may result in a small increase in the quantity of compensation payable to affected participants in connection with intervention events that trigger intervention pricing under the revised regional reference node test. However, the combined effect of this rule and the *Application of compensation in relation to AEMO interventions* rule (which removes affected participant compensation in connection with intervention events which do not trigger intervention pricing) will mean that the overall impact on affected participant compensation costs is likely to be a net reduction in compensation costs.

25 Where participants are affected (or dispatched differently) as a result of an intervention that triggers intervention pricing, affected participant compensation will continue to be payable. In such circumstances, the Commission considers it appropriate for affected participants to be “made whole” rather than losing revenue due to the application of a per trading interval threshold. Interventions which trigger intervention pricing have historically occurred in periods when the supply demand balance is tight and prices are high. Revenue earned during such periods can have an important impact on a participant's financial position, helping to recover generators' fixed costs (particularly for peaking plant which operates for relatively few hours per year) and supporting ongoing generator viability.

26 Changing a participant's dispatch targets at such times can negatively impact generator revenues and the Commission therefore considers it appropriate to put such participants in the position they would have been in but for the intervention. This includes adjusting the compensation threshold so it applies per event rather than per trading interval, thereby removing the potential for under-compensation.

27 Therefore, any increase in compensation costs arising from this change to the threshold is expected to be small given the infrequent nature of the events that will trigger intervention pricing under the revised regional reference node test. In addition, prices during such events are typically high which means it is likely that the per trading interval compensation threshold would (if it still applied on that basis) be exceeded in any case. Where this is the case, changing the threshold so that it applies on a per event basis rather than a per trading interval basis will not increase the amount of compensation paid to affected participants or the amount of compensation costs passed through to consumers.

28 Conversely, the revised "per event" compensation threshold will also mean that, if a generator is dispatched more as a result of an intervention and is liable to repay revenue to AEMO, the amount to be repaid will not be reduced as a result of the per trading interval threshold. For example, an affected participant may earn $100,000 in additional revenue as a result of being dispatched more due to an intervention. However, if it did not earn $5,000 or more in additional revenue on a per trading interval basis, it would not - under the compensation threshold as it applied prior to this determination - be required to repay this revenue to AEMO.

29 This imposes greater costs on consumers because, if the generator was required to repay the $100,000 to AEMO (net of the short run costs it incurred as a result of being dispatched more), this would reduce the amount of money which AEMO needs to recover from consumers via the "compensation recovery amount" in order to pay compensation to directed generators.

30 If the compensation threshold applies per event rather than per trading interval, then the affected generator will be required to pay back to AEMO the additional revenue it earned due to the intervention (net of additional short run costs incurred). As a result, the amount that AEMO needs to recoup from consumers via the compensation recovery amount will be less. This will help to offset the impact on consumers of any increase in the amount of affected participant compensation that may be payable (to generators which were dispatched *less* due to the intervention) as a result of changing the threshold to apply on a per event basis.

31 The Commission has decided not to change the quantum of the threshold as it applies to both directed and affected participants based on advice from AEMO as to its costs of processing additional compensation claims.

**32 Package of rules**

33 The rule the subject of this determination forms part of a package comprising three rules: namely, this rule together with two other rules relating to intervention pricing and the circumstances in which affected participant compensation is payable.

34 The intervention pricing rule changes the RRN test so that intervention pricing will no longer

apply in circumstances when an intervention event is to obtain a service which is not traded in the market (e.g. system strength, voltage control, inertia).[17]

35 The affected participant compensation rule narrows the circumstances in which affected participant compensation is payable to participants which are dispatched differently as a result of an AEMO intervention event.[18] The rule provides that affected participant compensation is no longer payable in connection with intervention events that do not trigger intervention pricing in accordance with the revised RRN test.

36 Finally, the rule the subject of this determination changes the compensation threshold that applies when compensation is payable to affected participants and to directed participants in the event they lodge a claim for additional compensation. As discussed above, the effect of this rule is to change the compensation threshold so that it applies per intervention event rather than per trading interval.

37 Given the inter-related nature of these rules (as set out below), the Commission has determined to commence this rule on the same date (20 December 2019) as the substantive provisions set out in Schedule 1 of the RRN test rule and the affected participant compensation rule. This will facilitate a streamlined and efficient implementation process.

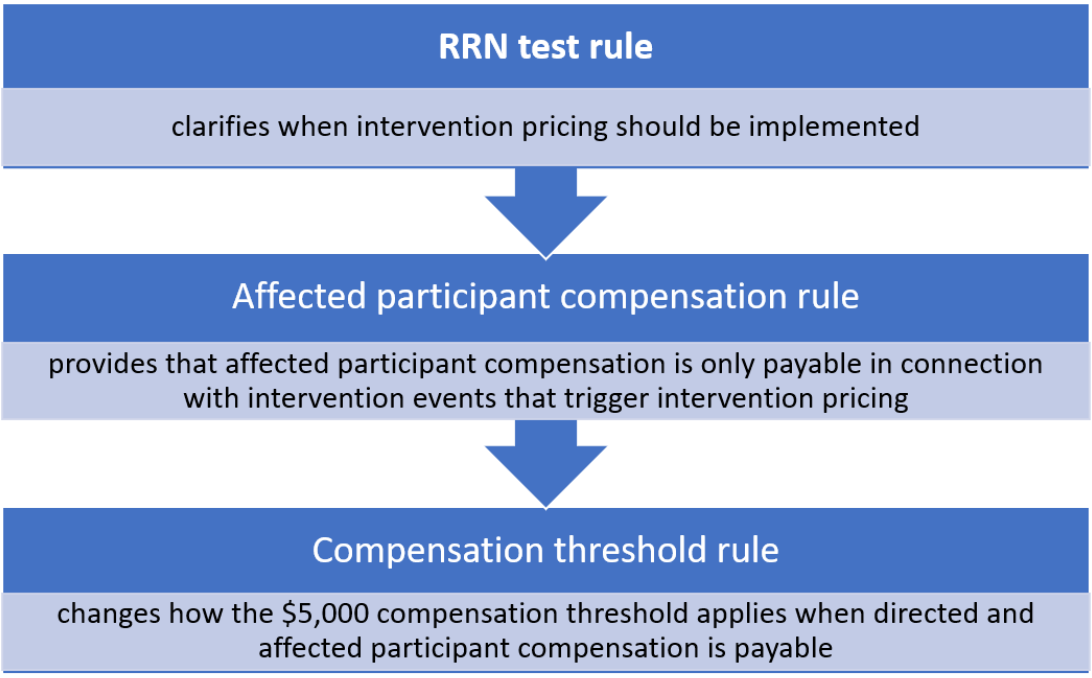
38 The final RRN test rule contains a transitional provision setting out that, if AEMO has issued a direction prior to the commencement date of Schedule 1 of the final rule, and that direction remains in effect on or after the commencement date, then, for so long as the direction remains in effect, old Chapter 3 (together with related definitions) will apply in respect of the AEMO intervention event corresponding with the direction. This means that the intervention pricing framework in Chapter 3 of the rules (as it stood immediately prior to commencement of Schedule 1 of the final rule) will apply to the AEMO intervention event corresponding with that direction for so long as that direction remains in effect.

39 The rules governing the application of compensation in relation to AEMO interventions and the threshold for participant compensation are also in Chapter 3 of the rules. As a result, the version of Chapter 3 in effect immediately prior to the commencement of Schedule 1 of the final RRN test rule will also apply to these matters in relation to the AEMO intervention event corresponding with the direction so long as that direction remains in effect.

17 *National Electricity Amendment (Application of the regional reference node test to the Reliability and Emergency Reserve Trader) Rule 2019 No. 11*.

18 *National Electricity Amendment (Application of compensation in relation to AEMO interventions) Rule 2019 No. 13.*

**Figure 1: Relationship between three related rules**




Source: AEMC

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## APPENDICES



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## FIGURES

# 1 INTRODUCTION AND BACKGROUND

## 1.1 Introduction

On 17 December 2018, AEMO submitted a request to the Australian Energy Market Commission (AEMC or Commission) to make a rule regarding the threshold for participant compensation following market intervention.

An AEMO intervention event includes both the issuance of a direction and the activation of the reliability and emergency reserve trader (RERT).[19]

Where AEMO issues a direction, compensation is payable to both "directed participants"[20] (those parties to whom the direction was issued) and to or by "affected participants"[21] (those parties who are affected by the direction – for example, a generator whose output was reduced as a result of the direction).

The compensation framework seeks to keep affected participants in the position that they would have been in but for the direction or RERT activation, thereby minimising market distortions resulting from the intervention.

Where AEMO activates the RERT, compensation is only payable to or by "affected participants" – reflecting that, in relation to the RERT, there are no "directed participants". Instead, the party providing services under the RERT is compensated pursuant to the relevant contractual arrangements.

Prior to this determination, the NER included a $5,000 per trading interval threshold which limited the amount payable to, or by, affected participants. A $5,000 per trading interval threshold also limited the payment of compensation to directed participants in the event they claimed additional compensation beyond the amount paid automatically (based on the 90th percentile price for energy or market ancillary services[22] or, for other services, based on a "fair payment price" determined by an independent expert[23]). AEMO's rule change request proposed that the $5,000 threshold apply per intervention event rather than per trading interval.[24]

The Commission's rule determination is to make a final rule which changes the way the threshold applies to directed and affected participants. For directed participants, the final rule provides that, in respect of a single direction, a directed participant may only make a claim for additional compensation if the amount of the claim is greater than $5,000. For affected participants, the final rule provides that the compensation threshold should apply per event

19 Chapter 10 of the NER.

20 Clauses 3.15.7 to 3.15.7B of the NER

21 Clause 3.12.2(a)(1) of the NER.

22 NER, clause 3.15.7.

23 NER, clause 3.15.7A.

24 A trading interval is a 30-minute period made up of six dispatch interval price periods, the average of which determines the spot price for the 30-minute trading interval. On 28 November 2017 the AEMC made a final rule to change the settlement period for the electricity spot price from 30 minutes to five minutes, starting in 2021. However, the National Electricity Amendment (Five Minute Settlement) Rule 2017 No. 15 will omit "intervention price trading interval" wherever it occurs and substitute "intervention pricing 30-minute period" in relation to claims for additional compensation by directed participants, and affected participants' and market customers' entitlements to compensation in relation to an AEMO intervention event.

rather than per trading interval in respect of both the automatic calculation of affected participant compensation, and any claims or disputes regarding the amount of compensation payable to or by affected participants.

## 1.2 Background to the rule change request

This section provides background to the rule change request.

It also explains:

- the interventions framework set out in the National Electricity Rules (NER)
- the compensation framework set out in the NER
- the changing nature of interventions.

### 1.2.1 Interventions framework

The purpose of interventions is to help maintain and/or re-establish the reliability and security of the NEM when regulatory processes or market responses have not delivered desired outcomes. Reliability relates to whether the power system has an adequate amount of capacity (generation, high voltage transmission network and demand response) to meet consumer needs. This is distinct from the concept of security whereby a secure power system is one that operates within defined technical limits.

The reliability framework, which includes the reliability settings such as the market price cap, cumulative price threshold, administered price cap and market floor price, is designed to deliver reliability consistent with the level of the reliability standard set out in clause 3.9.3C of the NER.[25] However, in operating the power system AEMO is expected to try to avoid any unserved energy (i.e. load shedding) in real time,[26] including by using the intervention mechanisms available to it if necessary. Intervention mechanisms also enable AEMO to deal with system security issues by intervening in the market in certain limited circumstances.

The interventions framework comprises the reliability and emergency reserve trader (RERT), "directions" and "instructions" under clause 4.8.9 of the NER (clause 4.8.9 instructions). The RERT allows AEMO to contract for emergency reserves (generation or demand-side capacity that is not otherwise available to the market). AEMO can use these emergency reserves in the event that it determines that market participants are not meeting the reliability standard (i.e. the level of reliability that the market is expected to provide).

AEMO can issue directions (in respect of scheduled plant or a market generating unit) to maintain system security and a reliable operating state. For example, it may direct a generator to increase its output, cancel or shift an outage or not to go off-line, if this is possible and can be done safely. Clause 4.8.9 instructions are another form of market intervention available to AEMO. These are typically used to instruct a transmission network service provider to shed load involuntarily as a last resort.

25 The reliability standard for generation and inter-regional transmission is a maximum expected unserved energy (USE) in a region of 0.002 per cent of total energy demanded in that region for a given financial year.

26 See clause 4.2.7 of the NER - AEMO is required to keep the system operating to a reliable operating state which implies no unserved energy.

Intervention mechanisms are an acknowledged and important feature of the market design. However, the use of such mechanisms requires careful consideration as to the flow-on effects for investment signals and investor confidence, as well as costs for consumers.

### 1.2.2 The changing nature of interventions

Low system strength has emerged as an issue in South Australia as the generation mix in that region shifts from one dominated by synchronous generators to one with a growing proportion of asynchronous renewable generation. Currently, low system strength in South Australia is being addressed through AEMO issuing directions to synchronous generators to operate in order to meet minimum system strength requirements. As at 09 November 2019, 330 directions have been issued to South Australian generators to maintain system strength, representing an unprecedented use of this intervention mechanism.

During 2018, directions were in place for around 30 per cent of the time. However, as shown below in figure 1.1, the percentage of time during which directions were in place fell significantly in 2019, down to 5.4 per cent in Q1. AEMO notes that the decreased use of directions in Q1 was due to higher synchronous generator availability, influenced by periods of high demand (which is typical for summer) and expectations of comparatively higher spot prices.[27]

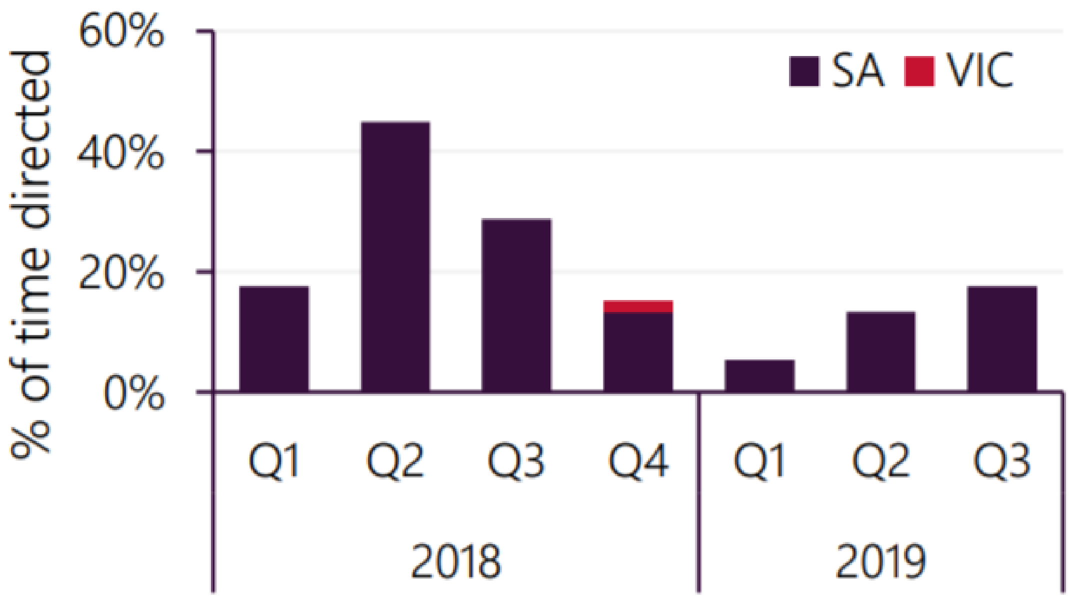
Directions in Q2 and Q3 were also down relative to 2018 levels. In Q2 2019, directions were in place for 13.3 per cent of the time. Likely drivers for this increase relative to the first quarter of 2019 include reduced operational demand in South Australia, following the end of summer, and increased wind generation. However, unplanned coal outages in NSW resulted in higher levels of gas output in South Australia, which would have tended to suppress the number of directions relative to levels observed in Q2 2018.

While directions in Q3 rose relative to Q2 due to windier conditions, AEMO notes that the use of directions was lower than in 2018 due to higher synchronous unit availability, with Osborne and Pelican Point power stations having a combined availability 22 per cent higher than in Q3 2018.[28]

27 AEMO, *Quarterly Energy Dynamics - Q1 2019*, May 2019, p. 23.

28 AEMO, *Quarterly Energy Dynamics, Q3 2019,* 12 November 2019.

**Figure 1.1:** **Directions for system security in South Australia and Victoria**




Source: AEMO

System strength directions were issued to Victorian generators in September 2019 and AEMO has indicated that it expects to declare a fault-level shortfall in north-west Victoria in the near future, once assessments are finalised.[29] In November 2019, AEMO declared a shortfall of both system strength and inertia in Tasmania.[30]

This suggests that low system strength will increasingly pose challenges in other NEM regions in the near to mid-term.

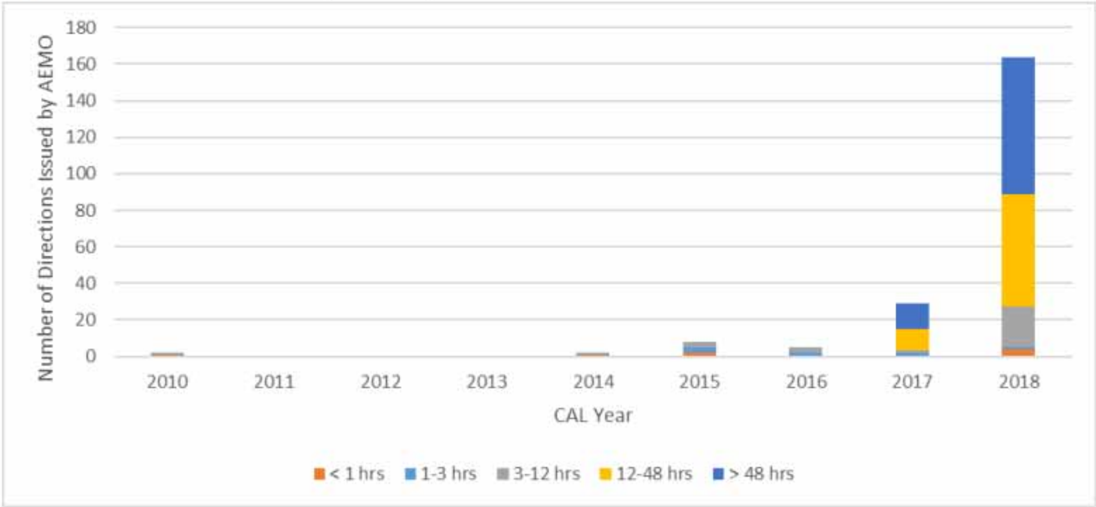
As shown in Figure 1.2, the duration of interventions has also increased in the last two years, with direction events lasting on average three days and up to 22 consecutive days (for one direction event in April 2018).[31] This is particularly pertinent in considering AEMO's request to apply the current per trading interval compensation threshold on a per event basis.

29 AEMO, *Draft 2020 Integrated System Plan,* 12 December 2019, p. 49.

30 AEMO, *Notice of inertia and fault level shortfalls in Tasmania,* November 2019

31 AEMO, Rule Change Proposal - Threshold for participant compensation following market intervention, p. 2.

**Figure 1.2: Duration of interventions by calendar year**




Source: AEMO

When AEMO intervenes in the market, it is required to compensate both market participants who were directed, and also those that were affected by the direction (or RERT activation). In certain circumstances, AEMO also implements "intervention pricing", a practice designed to minimise market distortion by preserving the price signals the market would have seen but for the intervention in the market. The provision in the NER which determines when AEMO should implement intervention pricing was amended by a final determination and rule published on 19 December 2019.[32] Under what is known as the "regional reference node test", intervention pricing does not apply if a direction or RERT activation is to:

- obtain a service which is not traded in the market (e.g. system strength, inertia, voltage control), or
- address a localised energy or market ancillary service issue in a part of the network which, due to a network or other constraint, does not include the regional reference node.[33]

The increasing use of interventions in South Australia and Victoria has drawn attention to a number of issues regarding the intervention and compensation framework set out in the NER and prompted a number of reviews, as discussed below.

### 1.2.3 AEMO review of intervention pricing

In June 2017 AEMO engaged consultants (SW Advisory and Endgame Economics) to undertake a review of the intervention pricing and compensation process. The resulting

32 AEMC, *Application of the regional reference node test to the reliability and emergency reserve trader, Rule determination*, 19 December 2019.

33 NER, clause 3.9.3(b). The regional reference node (RRN) is the location in each region at which spot prices are determined by the NEM dispatch engine (NEMDE) and by reference to which marginal loss factors are calculated. RRNs are typically located near the major load centre in each region - i.e. the capital city.

report (completed in October 2017) outlined recommendations for improvements to the compensation process as well as alternative methodologies for intervention pricing.[34]

AEMO sought stakeholder feedback on the issues raised by the consultants' report through the establishment of its Intervention Pricing Working Group (IPWG). The IPWG was tasked with considering the recommendations in the SW Advisory and Endgame Economics report, as well as discussing new approaches that had not been considered.[35] The IPWG met five times between November 2017 and May 2018. In addition to agreeing on changes to the Intervention Pricing Methodology, the IPWG also agreed that various rule changes should be proposed, including this rule change request.[36]

The final report of the AEMC's *Reliability Frameworks Review* noted that the changing nature and frequency of interventions had led to the identification of anomalies and inefficiencies within the intervention pricing and compensation frameworks.[37] The Reliability Frameworks Review recommended that the AEMC build on the work done by AEMO through the IPWG and review the current intervention pricing and compensation framework to make sure it is sufficiently nuanced to respond efficiently to the variety of contexts in which AEMO intervention events occur. The final report also recommended that the AEMC progress any rule changes submitted by AEMO on intervention pricing and compensation in conjunction with the review.[38]

Two rule change requests endorsed by the IPWG have already been finalised. On 30 May 2019, the AEMC made a final rule to streamline the intervention cost recovery process by aligning the timetables for compensation and settlement following an intervention. The rule also extended the deadline for participants to make additional compensation claims following an intervention, thereby allowing participants more time to assess the impact of intervention events.[39]

### 1.2.4 Investigation into intervention mechanisms and system strength in the NEM

Consistent with the Reliability Frameworks Review recommendations, the Commission has undertaken an investigation into intervention mechanisms and system strength in the NEM. As part of this investigation the AEMC has considered the experience to date with the current intervention and compensation framework, including any underlying issues within the framework. It is also considering whether any refinements are warranted to the system strength framework to support the power system in the most efficient manner possible and

34 The report is included in the meeting pack for meeting 1 of the Intervention Pricing Working Group - available at https://www.aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Other-meetings/Intervention-Pricing-Working-Group

35 Terms of reference available at: https://www.aemo.com.au/-/media/Files/Stakeholder_Consultation/Working_Groups/Other_Meetings/IPWG/Intervention-Pricing-WG_Terms-of-Reference_Final.pd

36 https://www.aemo.com.au/Stakeholder-Consultation/Industry-forums-and-working-groups/Other-meetings/Intervention-Pricing-Working-Group. See in particular item 4.1 in the meeting pack for meeting 5.

37 AEMC, *Reliability Frameworks Review, Final Report*, 26 July 2018.

38 Reliability Frameworks review Recommendation 6, p112 https://www.aemc.gov.au/sites/default/files/2018-07/Final%20report_0.pdf

39 AEMC, Intervention compensation and settlement processes https://www.aemc.gov.au/rule-changes/intervention-compensation-and-settlement-processes

minimise the need for AEMO interventions and its consequences (e.g. compensation and intervention pricing).

On 4 April 2019, the Commission published a consultation paper exploring a range of issues relating to the intervention and system strength frameworks. Submissions in response to the consultation paper were submitted by 21 stakeholders.[40]

That paper also initiated consultation on the rule change request which is the subject of this final determination, together with another AEMO rule change request (discussed earlier) relating to the "regional reference node test" (RRN test).

On 19 December 2019, the Commission published a final determination on the *Application of the regional reference node test to the reliability and emergency reserve trader* rule change request. The Commission's final more preferable rule changes the wording of the RRN test to clarify the circumstances in which intervention pricing should apply. In essence, the final rule provides that intervention pricing is to apply in relation to interventions to obtain services which are traded in the market (energy or market ancillary services) but will not apply where interventions are used to obtain services which are not traded in the market (including security services such as system strength, voltage control and inertia). The final rule also extends the reach of the test to encompass the RERT, thereby creating a consistent approach to intervention pricing as between directions and the RERT.

## 1.3 The compensation framework

### 1.3.1 Compensation for directed participants

"Directed participants" are eligible to receive compensation so that they can recover the cost of providing services under direction.[41] The NER definition of directed participant is broad, encompassing scheduled generators, semi-scheduled generators, market generators, market ancillary service providers, scheduled network service providers or market customers which are the subject of a direction.[42]

Where the directed participant has provided energy or market ancillary services, compensation is in the first instance paid automatically. AEMO adjusts the settlement process so that directed participants are paid for the energy or market ancillary services they provided pursuant to the direction at the 90th percentile price, calculated by reference to the spot or ancillary service price in the preceding 12 months.[43] Directed participants can also lodge a claim for additional costs, including loss of revenue, if payment at the 90th percentile price is not adequate to cover their costs.[44] However, a $5,000 threshold per trading interval applied, prior to this final determination, to claims for additional compensation.[45]

40 These are available at https://www.aemc.gov.au/market-reviews-advice/investigation-intervention-mechanisms-and-system-strength-nem

41 Clauses 3.15.7, 3.15.7A and 3.15.7B of the NER.

42 Direction is defined as having the meaning given in clause 4.8.9(a1)(1). That clause provides that a direction is where AEMO, or a person authorised by AEMO, requires a registered participant to take action in relation to scheduled plant or a market generating unit. Scheduled plant is defined, in respect of a registered participant, as meaning a scheduled generating unit, semi-scheduled generating unit, a scheduled network service or a scheduled load classified by or in respect to that registered participant in accordance with chapter 2.

43 Clause 3.15.7(c) of the NER.

44 Clause 3.15.7B of the NER.

The entitlement of directed participants to receive compensation was included in the NER following a review of directions by NEMMCO and NECA in 2000. That review concluded that directed participants should receive a "fair payment" that would cover the cost incurred by the participant in complying with the direction while minimising inequitable impacts on other market participants.[46]

### 1.3.2 Compensation for affected participants

Affected participants are those parties (being scheduled generators or scheduled network service providers) whose dispatch quantities have been affected as a result of an AEMO intervention event (comprising the RERT and directions). The definition of affected participant in Chapter 10 of the NER also includes "eligible persons", being SRD unit holders who are entitled to receive an amount from AEMO where there has been a change in flow of a directional interconnector.[47]

Compensation is also payable to market customers with respect to scheduled loads which are dispatched differently due to an intervention.[48] This compensation is calculated in a similar manner to the calculation of affected participant compensation and the $5,000 compensation threshold applies to market customers with scheduled loads in the same way as it applies to affected participants. While the definition of affected participant in chapter 10 of the NER does not include market customers with respect to scheduled loads, this determination refers to affected participants in a broader sense to encompass market customers with respect to scheduled loads.

Affected participants are entitled to receive from, or pay to, AEMO an amount that puts them in the position they would have been in but for the direction or RERT activation.[49] Prior to the affected participant compensation rule, this entitlement existed regardless of whether intervention pricing is implemented during the intervention event.

As with directed participants, the compensation process for affected participants is automatic: affected participants need not lodge a claim for compensation. AEMO is required to notify affected participants of the estimated level at which they would have been dispatched had the intervention not occurred, and the trading amount they would have received had the intervention not occurred (less the trading amount already paid to the participant, where applicable).[50] This amount is then incorporated into the participant's final statement for the relevant billing period.[51]

45 Clauses 3.15.7B(a4).

46 NEMMCO and NECA, *Final Report – Power system directions in the National Electricity Market*, 2000, p. i, p.6.

47 SRD is shorthand for settlements residue distribution agreements. A SRD unit is defined in chapter 10 of the NER as "a unit that represents a right for an eligible person to receive a portion of the net settlements residue under clause 3.6.5 allocated to a directional interconnector for the period specified in a SRD agreement entered into between that eligible person and AEMO in respect of that right". These units are auctioned off by AEMO as part of the process of managing inter regional settlement residues.

48 Clause 3.12.2(a)(2) of the NER.

49 Clause 3.12.2(a) of the NER.

50 Clause 3.12.2(c) of the NER.

51 Clause 3.12.2(d) of the NER.

To calculate these amounts, AEMO reruns NEMDE, doing both a "dispatch run" and an "intervention pricing run". These two runs are used by AEMO to calculate the intervention price at which the market clears when intervention pricing is implemented in accordance with clause 3.9.3 of the NER. Even if intervention pricing is not being implemented in connection with a given intervention, AEMO needs to perform both runs of NEMDE in order to estimate the compensation payable to affected participants.

The "dispatch run" sets the dispatch targets for all generators across the NEM, including those providing services pursuant to a direction. The "intervention pricing run" sets the price at which the market clears (if intervention pricing is being implemented; if it is not, the prices produced by this run are ignored). The "intervention pricing run" excludes the effect of the intervention in order to set the price at the value which AEMO, in its reasonable opinion, considers would have applied but for the intervention. That is, the intervention pricing run does not include the dispatch targets for directed generators together with any generators to which AEMO has issued counteraction instructions.[52]

For example, if a generator generates less in the dispatch run than in the intervention pricing run, they will be paid compensation by AEMO to put them in the position that they would have been in had the intervention event not occurred. That is, they will be paid the difference between the amount they would have received based on their dispatch targets in the dispatch run (combined with the price from the intervention pricing run), and the amount they have received based on their dispatch targets in the intervention pricing run (combined with the price from the intervention pricing run if intervention pricing is being implemented or, if not, the price from the dispatch run).

By contrast, if a generator's output following an intervention is higher than it would have been had the intervention not occurred (i.e. it generates more in the dispatch run than in the intervention pricing run), it will be liable to pay an amount back to AEMO.

No compensation is payable to the affected participant, or payable by that participant to AEMO, if the amount payable is less than $5,000 per trading interval.[53] An affected participant may dispute the amount payable to them, or payable by them to AEMO, by making a submission to AEMO itemising and substantiating each component of the claim.[54]

No information is publicly available as to the quantum of compensation paid to or by individual affected participants, or the identity or location of affected participants. Only the "compensation recovery amount" is published by AEMO.[55]

This is the sum of the:

52 In accordance with clause 4.8.9(h)(3) and 3.8.1(b)(11), AEMO is required as far as reasonably practical to minimise the number of affected participants and the effect of interconnector flows. Thus, AEMO may issue counteraction instructions to another generator, in the same region as the directed generator, to reduce its output in order to offset the amount of energy being provided by the directed generator. This is intended to confine the impact of the intervention to a single region and avoid impacts on interconnector flows.

53 Clause 3.12.2(b) and (i) of the NER

54 Clauses 3.12.2(f) and (g) of the NER.

55 The *Interventions investigation* final report recommended that changes be made to the NER to enhance transparency regarding the payment of directed and affected participant compensation: AEMC, op cit, 2019, p. vii

- compensation paid by AEMO to directed participants (net of the trading amounts retained by AEMO in accordance with clause 3.15.6(b) of the NER)
- compensation paid by AEMO to affected participants net of amounts paid by affected participants to AEMO, and
- costs paid by AEMO to independent experts who are engaged to determine additional compensation claims or disputes as to liability.

The only exception in terms of publicly available information is where an independent expert has been engaged to assess a claim by an affected participant for additional compensation, or where the affected participant disputes the amount it has to pay to AEMO and this is reviewed by an independent expert.[56]

### 1.3.3 Origin of the $5,000 threshold

As previously mentioned in section 1.3.1, the $5,000 threshold was included in the NER following the Review of Directions by NEMMCO and NECA in 2000. The report of that review noted that payment should only be made where the value at stake is sufficient to justify the significant administrative outlays in determining compensation. It proposed that consideration only be given to claims with a value exceeding $5,000 to each individual party, with amounts less than this deemed immaterial given the costs of settling claims.[57]

Following this review, the Code Change Panel recommended the inclusion of a provision in the following terms: "a directed participant may only make a claim pursuant to clauses 3.15.7B(a), 3.15.7B(a1) or 3.15.7B(a2) if the amount of the claim is greater than $5,000." Notwithstanding this recommendation, the provision as adopted included a reference to trading intervals. It is unclear why this change was made to the provision as adopted.

The amendments made to the NER following the 2000 review provided that a minimum threshold of $5,000 per trading interval applied to claims for additional compensation by directed participants, to payments to and by affected participants, and affected participant claims for additional compensation or disputes as to liability.[58]

56 The *Interventions investigation* final report recommended that the AER submit a rule change request to increase transparency regarding the payment of directed and affected participant compensation.

57 NEMMCO and NECA, op cit, p.30.

58 Clauses 3.12.2(b), 3.12.2(i) and 3.15.7B(a4) of the NER.

# 2 AEMO'S RULE CHANGE REQUEST

## 2.1 The rule change request

On 17 December 2018, AEMO made a request to the AEMC to make a rule that would apply the minimum $5,000 threshold for participant compensation to each intervention event rather than each individual trading interval (rule change request). An "AEMO intervention event" is defined as an event where AEMO intervenes in the market by issuing a direction or exercising the RERT.[59]

In order to manage security or reliability concerns, AEMO may need to intervene for a period of time until it considers that these concerns are alleviated. As such, an individual intervention event may comprise a number of trading intervals. Therefore, under the current approach, where an intervention event is of a long duration, the calculated participant compensation amount could far exceed $5,000 over the entire event without breaching the $5,000 threshold in any individual trading interval.[60]

## 2.2 Rationale for the rule change request

AEMO considered that "the potential for material under-compensation creates operational and financial risks for participants"[61] and that the proposed rule change would "efficiently incentivise participants to work collaboratively with AEMO without having to weigh this against the risk of financial losses from an intervention event".[62]

AEMO stated that the application of the threshold to each trading interval could result in participants not being adequately compensated in respect of the intervention event and provides the following example. In a case where a participant's assessed eligibility for compensation is $4,000 per trading interval over 12 hours, the cost accumulated would be nearly $100,000 but the compensation payable would be zero. AEMO stated that this is contrary to the objective that participants are not unreasonably "out of pocket" as a result of the intervention.[63] Of course, the same applies to affected participant liability to repay revenue to AEMO. The participant may have a total liability of nearly $100,000 but, as a result of the per trading interval threshold, their liability is set to zero because the amounts owing per trading interval do not exceed the $5,000 threshold.

## 2.3 Solution proposed in the rule change request

The rule change request proposed to amend the threshold for participant compensation so that it applies per intervention event, rather than per trading interval.

The rule change request proposed changes to clause 3.12.2 which deals with affected participants' and market customers' entitlements to compensation (both automatically

59 NER, Chapter 10, Glossary.

60 AEMO, Electricity Rule Change Proposal, op cit, p. 2.

61 ibid, p. 5.

62 ibid, p. 6.

63 ibid, p. 5.

calculated compensation and additional claims or disputes as to liability), and clause 3.15.7B which deals with claims for additional compensation by directed participants.

AEMO proposed that clauses 3.12.2(b), 3.12.2(i) and 3.15.7B(a4) of the NER be amended by replacing each instance of "intervention price trading interval" with "AEMO intervention event", deleting clause 3.12.2(d) to remove inconsistency, and making a consequential amendment to clause 3.12.2(e).[64]

AEMO considered that clause 3.12.2(d) will be redundant because the $5,000 limit will be adequately covered in paragraph (b), and clause 3.15.10C addresses the inclusion of compensation amounts in settlement statements.[65]

A copy of the rule change request may be found on the AEMC website at www.aemc.gov.au

## 2.4 The rule making process

On 4 April 2019, the Commission published a notice advising of its commencement of the rule making process and consultation in respect of the rule change request.[66] A consultation paper identifying specific issues for consultation was also published. Submissions closed on 16 May 2019. A more preferable draft rule determination was published on 15 August 2019. Submissions to this draft determination closed on 26 September 2019.

The Commission received 10 submissions as part of the first round of consultation and six in response to the draft determination. The Commission considered all issues raised by stakeholders in submissions. Issues raised in submissions are discussed and responded to throughout this final rule determination. A summary of the issues raised in submissions and the Commission's response to each issue is contained in Appendix A.

64 ibid

65 ibid

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

# 3 RULE DETERMINATION

The Commission's rule determination is to make a final rule which aligns with the rule change request submitted by AEMO (subject to some drafting clarifications, outlined in section 4.1.4). For directed participants, the final rule applies the $5,000 threshold for additional compensation claims per direction rather than per trading interval. For affected participants, the final rule applies the $5,000 threshold per intervention event rather than per trading interval. This applies both to automatically calculated affected participant compensation, and to affected participant claims for additional compensation/disputes as to liability.

This differs from the draft determination and draft more preferable rule which made no change to the threshold as it applies to affected participants. This was on the basis that doing so would run counter to the recommendation in the *Interventions investigation* final report to narrow the circumstances in which affected participant compensation is payable. Given this issue has now been addressed, the final rule changes the threshold with respect to both directed and affected participants. As such, the rule is no longer a more preferable rule (as was the draft rule).

The Commission’s reasons for making this determination are set out in section 3.3.

This chapter outlines:

- the rule making test for changes to the NER
- the assessment framework for considering the rule change request
- the Commission’s consideration of the final rule against the national electricity objective (NEO)

Further information on the legal requirements for making this rule determination is set out in Appendix B.

## 3.1 Rule making test

### 3.1.1 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 NEO.[67] This is the decision-making framework that the Commission must apply.

The NEO is:[68]

> to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:
>
> (a) price, quality, safety, reliability and security of supply of electricity; and
>
> (b) the reliability, safety and security of the national electricity system.

67 Section 88 of the NEL.

68 Section 7 of the NEL.

### 3.1.2 Making a differential rule

Under the Northern Territory legislation adopting the NEL, the Commission may make a differential rule if, having regard to any relevant MCE statement of policy principles, a different rule will, or is likely to, better contribute to the achievement of the NEO than a uniform rule. A differential rule is a rule that:

- varies in its term as between:
  - the national electricity system, and
  - one or more, or all, of the local electricity systems, or
- does not have effect with respect to one or more of those systems but is not a jurisdictional derogation, participant derogation or rule that has effect with respect to an adoptive jurisdiction for the purpose of s. 91(8) of the NEL.

As the rule relates to parts of the NER that currently do not apply in the Northern Territory, the Commission has not assessed the rule against the additional elements required by the Northern Territory legislation.[69]

## 3.2 Assessment framework

The Commission has set out a number of principles to guide the assessment of the rule change request in addition to the NEO.

**1. Equity:** does the proposed approach strike a fair balance between the interests of directed and affected participants, and consumers?

The Commission has considered the implications of the rule change request for the position of directed participants, affected participants and consumers, and sought to strike an appropriate balance between them.

**2. Efficiency:** does the proposed approach achieve the objective of helping to recover the administrative outlays associated with processing compensation claims, and dissuading immaterial claims?

The Commission has considered the operation of the various provisions and their impact on eligibility to receive or pay compensation. The Commission has also had regard for the appropriate quantum of the threshold.

**3. Transparency and predictability:** is it clear how the proposed approach will affect the interests of market participants?

The Commission has considered how best to achieve transparency and predictability - for example, noting that there is no way to know in advance how many trading intervals a given intervention will comprise. This in turn has a bearing on considerations as to the appropriate quantum of the compensation threshold.

69 From 1 July 2016, the NER, as amended from time to time, apply in the NT, subject to derogations set out in regulations made under the NT legislation adopting the NEL. Under those regulations, only certain parts of the NER have been adopted in the NT. (See the AEMC website for the NER that applies in the NT.) National Electricity (Northern Territory) (National Uniform Legislation) Act 2015.

**4. Risk allocation:** does the proposed approach appropriately allocate risk to those parties best able to manage them?

The Commission has considered whether the current threshold represents an appropriate allocation of risk, and whether and to what extent the proposed rule will impact this. For example, the current per trading interval threshold creates financial risks for directed participants who have incurred costs as a result of a direction but are unable to recover them. While this reduces compensation costs to consumers, under-compensating directed participants may also create risks to system security and reliability (and thus consumers) where the directed participant provides a service that is required to keep the system secure/reliable and which was not provided under the normal operation of the market. It is therefore important to have regard for direct and indirect costs and risks.

## 3.3 Summary of reasons

### 3.3.1 Directed participants

Where an intervention event is of a long duration, the application of the $5,000 threshold on a per trading interval basis could have an adverse impact on the financial position of the directed participant. For example, if a direction spans a number of trading intervals and the directed participant's additional costs amount to a value just below the $5,000 threshold per trading interval, the cumulative costs over the duration of the direction may amount to significant additional costs for a directed participant. In this situation the directed participant would not be entitled to compensation for these additional costs.

Accordingly, the Commission considers it appropriate to adjust the threshold for directed participant additional compensation claims so that it applies per direction rather than per trading interval. The Commission acknowledges that the rule may result in greater costs being passed through to consumers. However, this is not expected to have a significant impact on consumers given the limited number of claims to date. Since April 2017, when system strength directions began, there have been only two claims lodged for additional compensation. This is despite the fact that, as at 09 November 2019, 330 system strength directions have been issued in the period since April 2017.

Further, the Commission considers that, where a participant is directed to provide services over a number of trading intervals, it should not incur loss as a result of a compensation threshold that applies per trading interval. Negatively impacting the financial position of participants which have been compelled to provide services needed by the market is not in the long term interests of consumers.

### 3.3.2 Affected participants

In its *Interventions investigation* final report, the Commission recommended that affected participant compensation should only be payable in connection with intervention events which trigger intervention pricing.[70] Reasons in support of this recommendation include:

70 AEMC, *Investigation into intervention mechanisms in the NEM, Final report,* 15 August 2019.

- no affected participant compensation is payable when system security is achieved through the use of constraints, so removing affected participant compensation for system security interventions will increase consistency and reduce costs to consumers,
- affected participant compensation is calculated based on dispatch targets in the intervention pricing run. These dispatch targets are infeasible in the sense that they represent an insecure system, which prompted AEMO to intervene in the market to change the mix of generators online. As such, it is not considered appropriate to compensate participants by reference to targets which would never be realised in practice.
- analysis by the Commission of data provided by AEMO indicates that participants are able to optimise the amount of affected participant compensation they receive. For example, one affected participant (out of a total of 25 affected participants) has received more than 30 per cent of the total amount paid out by AEMO to affected participants in the period April 2017 to April 2019. This participant is not being compensated in respect of generating units located in South Australia and as such the use of counteraction instructions is not a factor that has influenced the quantum of compensation paid to this participant.

As discussed in the final report, these factors support the Commission's conclusion that affected participant compensation is not warranted in connection with system security interventions and is not in the long terms interests of consumers.

In the draft determination published on 15 August 2019, the Commission determined that, given the recommendation to narrow the circumstances in which affected participant compensation is payable, it would not be in the interests of consumers to change the threshold so it applies per intervention event rather than per trading interval (thereby increasing the amount of compensation payable to affected participants, at the expense of consumers). Accordingly, the Commission determined to make a more preferable draft rule which changed the compensation threshold in respect of directed participants but made no change to the threshold as it applies to affected participants.

The Commission has since received a rule change request from AEMO[71] requesting that there should be no affected participant compensation in instances where intervention pricing does not apply. The Commission published a consultation paper on 24 October 2019 in relation to AEMO's rule change request and a final determination and final rule on 19 December 2019.[72] The affected participant compensation rule makes clear that affected participant compensation is only payable in respect of interventions which trigger intervention pricing.

The regional reference node test which determines when intervention pricing should apply was also amended by a final determination and rule published on 19 December 2019.[73] The

71 AEMO, Electricity Rule Change Proposal, Application of compensation in relation to AEMO interventionsSeptember 2019

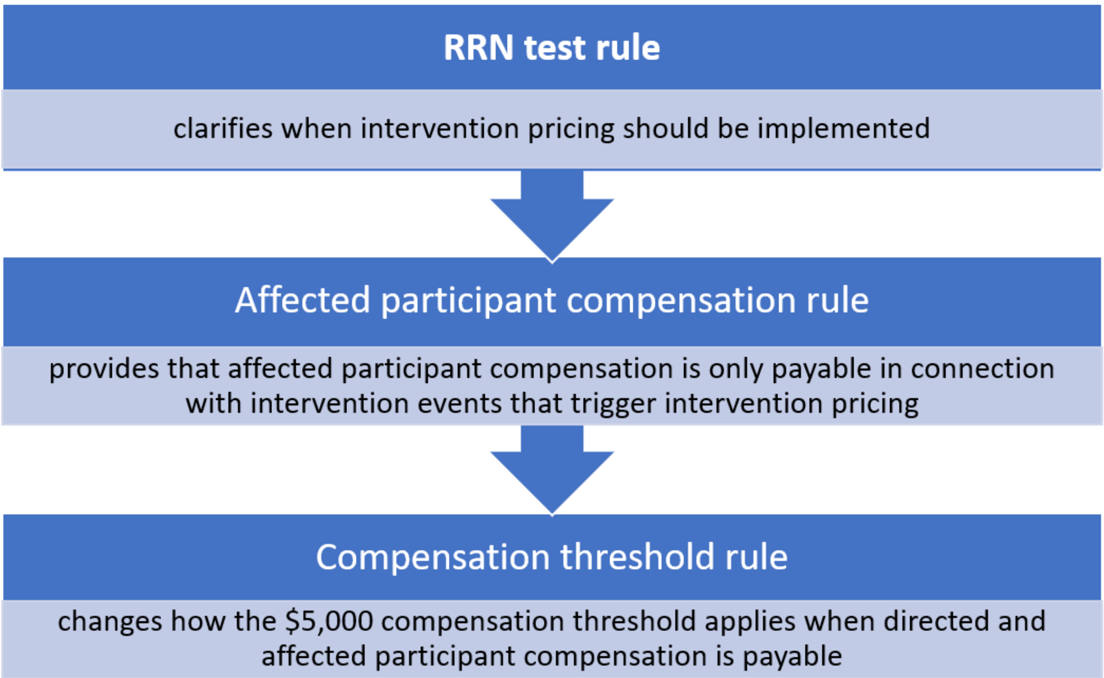
72 AEMC, *Application of compensation in relation to AEMO interventions, Rule determination*, 19 December 2019 and *National Electricity Amendment (Application of compensation in relation to AEMO interventions) Rule 2019 No. 15* - referred to as the 'affected participant compensation rule'.

73 AEMC, *Application of the regional reference node test to the reliability and emergency reserve trader, Rule determination*, 19 December 2019 and *National Electricity Amendment (Application of the regional reference node test to the Reliability and Emergency Reserve Trader) Rule 2019 No. 12* - referred to as the "RRN test rule".

effect of the RRN test rule is that intervention pricing will no longer be implemented with respect to interventions to obtain services such as system strength, voltage control or inertia as these are not market traded and hence there is no relevant price signal to preserve. Accordingly, affected participant compensation will no longer be payable in connection with such interventions.

The interaction of these three rules is set out below.

**Figure 3.1: Interaction between three related rules**




Source: AEMC

All else equal, changing the threshold to apply per event rather than per trading interval when considered in isolation could be expected to increase costs to consumers. However, the combined effect of this rule, the RRN test rule[74] and the affected participant compensation rule[75] is such that compensation costs to consumers should be reduced given that the circumstances in which affected participant compensation is payable are now confined to interventions that trigger intervention pricing.

74 *National Electricity Amendment (Application of the regional reference node test to the Reliability and Emergency Reserve Trader) Rule 2019 No. 12*

75 *National Electricity Amendment (Application of compensation in relation to AEMO interventions) Rule 2019 No. 15*

In relation to those interventions which do trigger intervention pricing, changing the threshold is expected to have only a modest impact on consumers given the infrequent nature of intervention events which meet the revised criteria in the RRN test. [76]

To date the RERT has only been activated on four occasions - in November 2017, January 2018 and on two consecutive days in January 2019. All of these events (both directions and RERT activations) were of short duration, meaning that changing the threshold from per trading interval to per event has far less impact on consumers that would be the case if a "per event" threshold was to be adopted with all respect to all interventions, not just those which trigger intervention pricing under the revised RRN test. In addition, prices during such events are typically high, making it more likely that the $5,000 per trading interval threshold would (if it still applied on that basis) be exceeded. Where that is the case, changing the threshold from a per trading interval basis to a per event basis will not increase the quantum of compensation paid to affected participants or the compensation costs passed through to consumers.

The Commission has therefore determined to make a final rule which changes the compensation threshold so that it applies per event rather than per trading interval in respect of both directed participants and affected participants. This will make sure that, where directed and affected participants are eligible to receive compensation, the threshold will not limit their ability to recoup their losses. In the case of affected participants who are required to repay funds to AEMO, the revised per event threshold will not limit their obligation to repay funds to AEMO at the expense of consumers.

76 In relation to directions, only two directions have been issued in the period since 2010 in response to a shortage of energy. (These were issued to Pelican Point power station in February and March 2017.) Directions issued to Pelican Point and Torrens Island on 1 December 2016 would also meet the revised RRN test as they were responding to a shortage of market ancillary services (frequency control ancillary services).

# 4 ISSUES RAISED AND COMMISSION'S CONCLUSIONS

This chapter outlines the issues as raised by AEMO in the rule change request, stakeholder submissions, the Commission's analysis and conclusions regarding the application of the $5,000 threshold to directed participants and affected participants.

## 4.1 Application of the $5,000 threshold per intervention event to directed participants

A directed participant may claim additional compensation if it believes compensation based on the 90th percentile price (for energy and market ancillary services) or based on the "fair payment price" for other services is insufficient to cover its net direct costs and lost revenue.[77] Prior to this determination, a minimum threshold of $5,000 per trading interval applied to claims for additional compensation from directed participants. The principle behind the threshold is to prevent or limit claims for which the processing and determination costs are likely to exceed the compensation payable.

### 4.1.1 AEMO's view

AEMO proposed that the $5,000 threshold for additional compensation claims by directed participants be applied per intervention event, rather than per trading interval.

AEMO provided the following example in its rule change request outlining how participants may incur significant additional costs but not be entitled to any payment. For example, in a situation where the assessed compensation is $4,000 per trading interval over 12 hours, the cost accumulated would be nearly $100,000 but the compensation payable would be zero. AEMO notes that the application of the $5,000 threshold per trading interval could result in participants not being adequately compensated in respect of the intervention event.[78] This is contrary to the objective that participants are not unreasonably "out of pocket" as a result of the intervention.

In its submission to the April 2019 consultation paper, AEMO noted that the primary purpose of the threshold is to prevent or limit claims for which the processing and determination costs are likely to exceed the compensation payable.[79] It also noted that the smallest directed and affected participant compensation claims received by AEMO since the beginning of 2017 have been approximately $20,000.[80]

AEMO noted that there have been very few claims for additional compensation from directed participants. Since April 2017 when system strength directions in South Australia began, there have been only two additional cost claims by directed participants, suggesting that the

77 Clauses 3.15.7, 3.15.7A and 3.15.7B of the NER.

78 AEMO, Rule change proposal: Threshold for participant compensation following market intervention, p 5.

79 AEMO, Submission to consultation paper, p.7.

80 ibid, p. 8.

90th percentile spot price compensation is rarely insufficient to cover the costs of directed participants.[81]

### 4.1.2 Stakeholder views on the consultation paper

As shown in table 4.1 below, all stakeholders who commented on the issue as discussed in the April 2019 consultation paper supported applying the compensation threshold on a per event basis.

Submissions from AGL, Australian Energy Council, EnergyAustralia, Engie, Powershop, Origin and Snowy Hydro support AEMO's proposal to apply the $5,000 threshold per event rather than per trading interval as this will prevent market participants being adversely affected where an intervention event comprises a number of trading intervals.

Origin notes that, while the threshold mainly exists to minimise the administrative burden of processing compensation, a direction over a relatively longer duration can result in accumulated costs which far exceed the administrative cost of calculating compensation, and therefore the threshold should apply on a per event basis rather than per trading interval.[82]

Snowy Hydro supports AEMO's rule change request to have the $5,000 threshold apply to each event, rather than each trading interval so that market participants are not adversely affected where an intervention event comprises a number of trading intervals.[83]

AGL supports the AEMO rule proposal to apply the threshold per intervention event. AGL believes that the application of this threshold in a "heightened directions environment" has meant that significant costs have been unable to be recovered.[84]

The Australian Energy Council also supports the proposal to apply the threshold on a per event basis. It acknowledges that making this change increases the likelihood of smaller additional compensation claims being made but considers that such claims will not be frequent given the basis on which automatically calculated compensation is determined (i.e. the 90th percentile price).[85]

Table 4.1: Stakeholder views on compensation threshold

| APPROACH | STAKEHOLDERS |
|---|---|
| Change threshold to apply per event | AGL, AEC, EA, ERM, Powershop, Snowy, Origin, Engie (8) |
| Continue to apply per trading interval | None |

Source: AEMC analysis

81 ibid, p.7.

82 Origin, Submission to consultation paper, p.3.

83 Snowy Hydro, Submission to consultation paper, p.6.

84 AGL, Submission to consultation paper, p.3. The Commission notes that AGL lodged one of only two additional compensation claims made in relation to system strength directions in the period since April 2017. In that case, the independent expert engaged by AEMO applied the $5,000 threshold on a per event basis rather than on a per trading interval basis: Synergies, *Final report on claims for additional compensation arising from directions on 25 April 2017*, September 2017 .

85 Australian Energy Council, Submission to consultation paper, p.3.

### 4.1.3 Stakeholder views on the draft determination

As shown in Table 4.2 below submissions from AGL, EA, Origin, Powershop, Snowy, Engie and Uniting Communities supported the Commission's draft determination to change the compensation threshold to apply per direction rather than per trading interval in respect of directed participant additional compensation claims.

Table 4.2: **Stakeholder views on draft determination**

| DRAFT DETERMINATION | AGREE | DISAGREE |
|---|---|---|
| Apply threshold per direction for directed participant additional compensation claims | AGL, EA, Origin, Powershop, Snowy, Uniting Communities, Engie (7) | (0) |

Source: AEMC analysis

AGL supports amending the threshold for directed participant additional compensation claims, noting that it will better allow directed participants to recover their costs.

Origin also supports the AEMC's decision to apply the compensation threshold for directed participants on a per direction basis, rather than for each trading interval. Origin notes that the draft rule appropriately recognises that a direction over an extended period can result in a cumulative impact on generators that exceeds the cost of processing compensation claims.

Snowy Hydro submits that directed participants should receive the appropriate compensation for providing services at times when the system is under stress. Snowy Hydro therefore supports having the $5,000 threshold apply to each event, rather than per trading interval, so that market participants are not adversely affected where an intervention event comprises a number of trading intervals.

EnergyAustralia supports the AEMC's decision to change the $5,000 threshold for directed participants to a per direction threshold.

Powershop also supports amending the threshold for additional compensation claims by directed participants so it applies per direction and not per trading interval.

Uniting Communities supports the Commission's decision to apply the $5,000 threshold per direction rather than per trading interval on the basis that directed participants should be able to recover their reasonable and efficient costs. Uniting Communities also notes that market interventions that are likely to result in increased costs for consumers should only be utilised when all other options for necessary supply are exhausted.

### 4.1.4 Commission's analysis and conclusions

In the case of directed participants, the threshold applies to claims for additional compensation where the automatic compensation (calculated based on the 90th percentile price, or for services other than energy and market ancillary services, a fair payment price calculated under clause 3.15.7A) has not been adequate to cover the participant's costs.

Where the intervention event is of a long duration, the application of the $5,000 threshold on a per trading interval basis could have an adverse impact on the financial position of the directed participant as illustrated by the example provided by AEMO.

Accordingly, the Commission consider it appropriate to adjust the threshold for directed participants so that it applies per direction rather than per trading interval. While the AEMO rule change request proposed to amend clause 3.15.7B(a4) by changing the words "in respect of a single intervention price trading interval" to "in respect of a single AEMO intervention event", the Commission has opted for a slightly different approach.

This is because "AEMO intervention event" comprises both the RERT and directions and no directed participant compensation is payable in respect of the RERT (instead, parties providing services under the RERT are paid in accordance with contractual agreements). As such, there is no need to use the wider term, "AEMO intervention event", in a clause dealing solely with directions.

The Commission also wishes to make clear that the $5,000 threshold is to apply to additional compensation claims in respect of a single direction only - notwithstanding clause 1.7.1(b) of the NER which provides that "words importing the singular include the plural and vice versa". The Commission acknowledges that, in practice, AEMO often groups directions issued to the same participant in the same billing week for settlement and reporting purposes. However, the Commission intends that the threshold should apply to a single direction and not to a group of directions.

The Commission acknowledges that changing the threshold to apply per direction rather than per trading interval may result in greater costs being passed through to consumers. However, this is considered acceptable given the importance of ensuring that a participant which has been compelled to provide services under direction does not incur loss as a result. Retaining the current per trading interval threshold could have a detrimental impact on directed participants' financial position, particularly where directions occur frequently and comprise many trading intervals. This would not be in the long-term interests of consumers, particularly noting that the participants which are directed to provide services have the technical ability to provide the services needed by the market, and have been selected for direction by AEMO consistent with its obligation under clause 4.8.9(b)(1) to minimise the cost associated with directions.

In practice, the Commission does not expect that the amendment will have a significant impact on consumers given the limited number of additional compensation claims to date. Since April 2017, there have only been two claims for directed participant additional compensation in connection with the South Australian system strength directions.[86] By contrast, as at 09 November 2019, 330 system strength directions have been issued to generators in South Australia to maintain system strength. Prior to system strength directions becoming frequent, only very few additional compensation claims had been lodged.

86 One of these concerned the direction issued in April 2017 to Hallett power station. This was the first system strength direction issued in South Australia. Hallett power station is not a generator which is included the generator combinations developed by AEMO to maintain adequate system strength in South Australia. It has not been directed on for system strength since April 2017.

AEMO notes in its submission to the Consultation paper that: "The smallest directed and affected participant compensation claims received by AEMO since the beginning of 2017 have been approximately $20,000. It could be inferred that this represents an upper bound on the minimum cost of submitting an additional compensation claim."[87] That is, given the administrative effort required for a directed participant to lodge an additional compensation claim, it is unlikely that claims will be lodged where the sum involved is less than $20,000. This is relevant in considering the degree to which the proposed rule will result in additional claims and more compensation costs being passed through to consumers.

The Commission also notes that, where directed participant claims for additional compensation have been made, independent experts engaged by AEMO to assess the claims have on two out of the four occasions since December 2016 applied the threshold as if it applied per event, rather than per trading interval.[88] In practice therefore, the cost to consumers of increased directed participant compensation arising from this rule change is not expected to be significant.

The Commission acknowledges that the *Interventions investigation* final report on intervention mechanisms recommends that AEMO lodge a rule change request to change the basis on which directed participant compensation is currently calculated.[89] This reflects concern that the current framework (which calculates compensation for energy and FCAS directions based on the 90th percentile price) may result in some generators being over-compensated.

Should any change be made to the compensation framework to address such concerns, the Commission recognises that there could be an increase in additional compensation claims. However, the cost implications for consumers of any increase in additional claims would likely be offset or more than offset by the savings achieved by changing the basis on which initial compensation is automatically calculated.

Therefore, the final rule amends the NER so that the $5,000 compensation threshold for additional compensation claims by directed participants applies per direction, rather than per trading interval.

## 4.2 Application of the $5,000 threshold per intervention event to affected participants

An affected participant is entitled to receive from, or required to pay to, AEMO an amount that puts it in the position that it would have been in had the intervention not occurred.[90]

A minimum threshold of $5,000 per trading interval applies both to the automatic calculation of affected participant compensation and to claims for additional affected participant

87 AEMO, Submission to consultation paper, p. 8.

88 This issue was discussed in the consultation paper in section 6.1.3. Table 6.1 on page 97 analysed the approach adopted in five independent expert reports. Of these, four reports related to claims by directed participants while one report related to an affected participant.

89 AEMC, *Investigation into intervention mechanisms in the NEM, Final report,* 15 August 2019, p. v.

90 Clause 3.12.2 of the NER.

compensation, or disputes as to affected participant liability to repay revenue to AEMO.[91] As with directed participant compensation, the principle behind the threshold is to prevent or limit claims for which the processing and determination costs are likely to exceed the compensation payable.

### 4.2.1 AEMO's view

AEMO proposes that the $5,000 compensation threshold apply per intervention event rather than per trading interval for automatically calculated affected participant compensation and additional compensation claims/disputes by affected participants.

AEMO's rule change request set out analysis it presented to the Intervention Pricing Group (IPWG) in May 2018 detailing two intervention events which involved directions for system strength in early 2018.[92] AEMO notes that both interventions involved system strength directions, and that market prices were at extreme levels during the first event but were at normal levels during the second event.

Figure 4.1: **Table Figure**

| Event dates | Estimated compensation, $5,000 threshold per trading interval | Estimated compensation, $5,000 threshold per event | Difference |
|---|---|---|---|
| 12-15 January 2018 | $400,000 | $822,000 | $422,000 |
| 23-26 February 2018 | Nil | $114,000 | $114,000 |

Source: AEMO Rule change request p.4

The analysis shows that for the first event (12 - 15 January 2018, when prices were at extreme levels) estimated compensation to affected participants under the current per trading interval threshold was $400,000. By contrast, the estimated compensation payable had the $5,000 threshold been applied per event would have been $822,000. For the second event (23 - 26 February 2018, when prices were at normal levels), estimated compensation payable under the current per trading interval threshold was $0 and the estimated compensation had the $5,000 threshold been applied per event would have been $114,000.[93]

AEMO comments that this analysis demonstrates the risk of affected participants being under-compensated under the current rules. However, AEMO also acknowledges that the proposed changes may increase the compensation cost payable by market customers and ultimately consumers, noting that the impact of the proposed rule is dependent on the extent, timing and complexity of the direction.

91 Clauses 3.12.2(b) and 3.12.2(i) of the NER. An affected participant may submit a claim for compensation if it considers that its entitlement or liability should be redetermined.

92 AEMO, Rule change request: *Threshold for participant compensation following market intervention*, p.5.

93 ibid.

While AEMO acknowledges it is difficult to predict the impact of the rule, it did undertake analysis which showed that in the third quarter of 2018 the estimated amount of additional compensation payable to affected participants under a "per event" threshold approach would have been around $1.4 million.[94]

This table highlights an important point: when prices are at normal levels, the threshold is not met in any trading interval so no compensation is payable. Changing the threshold to apply per event in such circumstances means that compensation becomes payable in respect of all trading intervals during the intervention event. By contrast, when prices are at extreme levels, the per trading interval compensation threshold is met in (very roughly) half of all trading intervals during the intervention event. Changing the threshold to apply per event in such instances means that the compensation result changes in respect of only half the intervals that comprise the intervention event. This is important in considering how a revised threshold will impact costs to consumers when the circumstances in which affected participant compensation is payable have been narrowed - see further discussion in section 4.2.5.

### 4.2.2 Stakeholder views on the consultation paper

As noted earlier in section 4.1.2, submissions to the April 2019 consultation paper from AGL, Australian Energy Council, EnergyAustralia, Engie, Powershop, Origin and Snowy Hydro supported AEMO's proposal to apply the $5,000 threshold per event rather than per trading interval. Stakeholders considered that the requested rule change would prevent market participants being adversely affected where an intervention event comprises a number of trading intervals.

Powershop expressed the view that a market participant should be compensated to the position they would have been in prior to the intervention occurring.[95]

Similarly, Snowy Hydro noted that, as with directed participants, compensation costs paid to affected participants should also reflect what the market participant should receive had the intervention not occurred, thereby minimising market distortion from the intervention.[96]

Origin stated that a direction over a relatively longer duration can accumulate impacts which far exceed the administrative cost to AEMO of determining compensation, and therefore the compensation threshold should apply on a per event basis.[97] EnergyAustralia noted that affected participants become more exposed to material under-compensation under the current compensation threshold arrangements as the frequency of intervention events increases.[98]

94 AEMO, Rule change request: *Threshold for participant compensation following market intervention*, p.7.

95 Powershop, Submission to consultation paper, p.5.

96 Snowy Hydro, Submission to consultation paper, p.6.

97 Origin, Submission to consultation paper, p.3.

98 EnergyAustralia, Submission to consultation paper, p.3.

ERM Power supported the continued provision of "fair" compensation to parties financially disadvantaged by any market intervention event, and supported AEMO's rule change to alter the threshold for compensation or repayment to AEMO.[99]

AGL expressed strong support for the proposal, stating that application of the current threshold in a "heightened directions environment" has meant that significant costs have been unable to be recovered.[100]

Uniting Communities noted that, unlike directed participants, there is potential for affected participants to optimise their position with respect to compensation. In other words, there is potential for affected participants to behave in a manner that is not in the best interests of consumers.

Uniting Communities also expressed concern that South Australian consumers, in addition to compensating directed generators, are bearing the cost of compensating scheduled generators across the NEM whose dispatch targets are impacted as a result of system strength directions being issued in South Australia.[101]

### 4.2.3 Stakeholder views on the draft determination

As shown in Table 4.3 below, stakeholder views on the Commission's draft rule (which made no change to the $5,000 threshold as it applies to affected participants) were divided.

Submissions from AGL, EA, Origin, and Snowy to the draft determination did not support the Commission's draft determination to make no change to the compensation threshold as it applies to affected participants.

By contrast, Powershop and Uniting Communities supported the Commission's approach of making no change to the threshold as it applies to affected participants. Powershop noted that its position had changed since writing its earlier submissions in response to the consultation paper.

Table 4.3: **Stakeholder views on draft determination**

| DRAFT DETERMINATION | AGREE | DISAGREE |
|---|---|---|
| Make no change to the threshold as it applies to affected participants. | Powershop & Uniting Communities (2) | AGL, EA, Origin & Snowy (4) |

Source: AEMC analysis

AGL did not support the draft rule's approach, expressing the view that amending the compensation threshold for affected participants would not result in a materially negative outcome for either consumers or generators.[102]

99 ERM Power, Submission to consultation paper, p12.
100 AGL, Submission to consultation paper, p.3.
101 Uniting Communities, Submission to consultation paper, p.13.
102 AGL, submission to more preferable draft rule, p. 3

Origin Energy also did not support the approach in the draft rule. It suggested that, as reducing AEMO's costs is the policy reason for the threshold and the administrative costs for determining compensation for both directed and affected participants are the same, the threshold should be applied consistently to directed and affected participants. Additionally, Origin suggested that the introduction of 5-minute settlement will shorten the compensation threshold for affected participants resulting in the threshold only being met in extreme circumstances.[103] The Commission notes this is not the case as the 5-minute settlement rule preserves the interval as a 30-minute period.

Snowy Hydro notes that compensation paid to affected participants should reflect what the market participants would have received had the intervention not occurred. Snowy Hydro also notes that the more frequent occurrence of intervention events means that compensation not payable under the current threshold can now easily become material to affected participants.[104]

Uniting Communities supports not changing how the threshold applies to affected participants based on the Commission's recommendation that eligibility for affected participant compensation should be narrowed. Uniting Communities notes that it would not be appropriate to change the threshold in a manner that could result in a more than threefold increase in affected participant compensation costs to consumers, as outlined in the draft determination.[105]

Uniting Communities also notes that affected participants can optimise their position with respect to compensation, evidenced by the analysis in section 4.2.3 of the draft determination. Therefore, it is important not to increase the amount of compensation paid to affected participants at the expense of consumers. Uniting Communities remains of the view (consistent with its submission to the consultation paper) that affected participant compensation should not be paid unless there is a clear and transparent case for it, an opinion which it notes was endorsed by the Commission in the draft determination (at p. 26).[106]

Powershop also supported not changing the application of the $5,000 threshold to affected participants.[107]

EnergyAustralia noted that the affected participant issue was secondary to the intervention pricing issue and suggested that not changing the threshold may result in more additional compensation claims.[108] The Commission notes that, under the rule as it existed prior to this determination, the compensation threshold also applied to additional compensation claims by affected participants.

103 Origin, submission to more preferable draft rule, p. 1
104 Snow Hydro, submission to more preferable draft rule, p. 1
105 Uniting Communities, submission to more preferable draft rule, p. 5
106 Uniting Communities, submission to more preferable draft rule, p. 6
107 Powershop, submission to more preferable draft rule, p. 2
108 EnergyAustralia, submission to more preferable draft rule, p. 6.

### 4.2.4 Commission's analysis and conclusion

As noted previously, the *Interventions investigation* final Report recommended that AEMO submit a rule change request to narrow the circumstances in which affected participant compensation is payable. Informed by this recommendation, the draft rule made no change to the compensation threshold as it applies to affected participants. This was on the basis that changing the threshold, and so increasing the quantum of compensation payable to affected participants, was not in the long term interests of consumers.

On 17 September 2019, AEMO submitted a rule change request to narrow the circumstances in which compensation is payable in connection with AEMO intervention events.[109]

As noted in section 3.3, the Commission published a final rule on 19 December 2019 which limits the payment of affected participant compensation to those interventions events which trigger intervention pricing.

Affected participant compensation is now only payable in limited circumstances - such as where AEMO activates the RERT or directs a generator to provide energy or market ancillary services in response to region-wide scarcity (or localised scarcity which coincides with the regional reference node), thereby triggering intervention pricing. Affected participant compensation would not be payable in respect of directions for system strength or other security services.

This change in circumstances enables the Commission to resolve the question of how the threshold should apply in those (more limited) circumstances when affected participant compensation is payable. The Commission has determined that the compensation threshold for affected participants should apply per intervention event, rather than per trading interval, consistent with the approach to directed participants. This is consistent with the rule change request submitted by AEMO and, as such, the final rule is not a more preferable rule (as was the draft rule).

### 4.2.5 Cost implications of applying the threshold per event rather than per trading interval

The draft determination cited AEMO's analysis that the additional cost of adopting a per event threshold would have resulted in an increase in affected participant compensation payments of $1.4m in the third quarter of 2018.[110] Using available data relating to system strength directions issued in the period April 2017 to April 2019, and assuming no change to the circumstances in which affected participant compensation is payable, the draft determination estimated that adopting a per trading interval compensation threshold could potentially result in more than a threefold increase in compensation costs (from $2.05m pa to around $7.65m pa). This analysis focused only on system strength directions and did not include reliability directions (none of which were issued during the period examined) or RERT activations. These are discussed further below.

Compensation costs are recovered from market customers and ultimately consumers in the region that benefited from the direction. The draft determination noted that, while the sums

109 AEMO, Electricity Rule change proposal, Application of compensation in relation to AEMO interventions, September 2019.

110 AEMO, Rule change request, op cit, p. 7.

mentioned above are not large when considered in the context of the volume of energy traded in the NEM, it is nonetheless important to consider whether it is appropriate to increase the amount of compensation payable to affected participants by changing the threshold in the manner proposed.

Given that the circumstances in which affected participant compensation is payable have now changed due to the affected participant compensation rule,[111] the impact of changing the threshold is reduced relative to the situation that would have existed had no change been made to the circumstances in which such compensation is payable. For example, in the period since 2010, AEMO has only issued two directions in response to a shortage of energy. The infrequent nature of such directions reflects the fact that participants are generally incentivised to participate in the market and earn the spot price when the supply demand balance is tight. In such instances, this will be more attractive than receiving the 90th percentile price under directed participant compensation.[112] This is in contrast to the recent use of directions for security reasons. During 2018, system strength directions were in place for 30 per cent of the time on average in South Australia, although this level has reduced in 2019 due to a range of factors (see section 1.2.2).

System strength directions are typically issued in periods when wind output is high, operational demand is low to moderate, and spot prices have fallen to low levels, causing synchronous generators to withdraw from the market. When prices are low, the per trading interval compensation threshold is less likely to be met, meaning that less compensation will be payable to affected participants. Accordingly, changing the threshold from a per trading interval basis to a per event basis will likely increase the amount of compensation paid and compensation costs passed through to consumers.

This is in contrast to the situation when prices are high (as discussed in section 4.2.1). In such circumstances, it is more likely that the per trading interval compensation threshold (if it still applied on that basis) would have been met. This means that applying the threshold on a per event basis, rather than a per trading interval basis, will have little if any impact on the quantum of compensation payable and therefore the costs passed through to consumers.

Another factor which limits the potential cost implications for consumers of changing the threshold to apply on a per event basis is that, during an intervention event that triggers intervention pricing, the extent to which other participants are "affected" (i.e. dispatched differently) due to the intervention is likely to be limited. This is because the supply demand balance in such instances is likely to be tight, and thus any change in dispatch targets may be limited and/or short-lived, as discussed below.

For example, when AEMO directed Pelican Point into service to provide more headroom on two occasions in February and March 2017, other units were turned down to offset the impact of the direction (see further below). In such circumstances, a subsequent increase in demand would likely restore the dispatch targets of affected participants to (or close to) the level that applied before the direction was issued. If demand did not increase as forecast,

111 AEMC, *Application of compensation in relation to AEMO interventions, Rule determination,* 19 December 2019.

112 Clause 3.15.7 of the NER.

AEMO would need to cancel the direction in accordance with its obligation to revoke directions as soon as they are no longer required.

*Intervention events which trigger intervention pricing under the revised RRN test:*

Appendix C examines those intervention events over the past ten years which meet the criteria in the revised RRN test for the implementation of intervention pricing. The events examined are two reliability directions (in response to a shortage of energy), two directions relating to a shortage of FCAS, and four RERT activations. Affected participant compensation will continue to be payable in connection with such events, consistent with the *National Electricity Amendment (Application of compensation in relation to AEMO interventions) Rule 2019 No. 13.* As such, it is important to consider the implications of adopting a "per event" compensation threshold in connection with such events.

Based on the analysis set out in Appendix C, the Commission considers that the potential compensation cost impact on consumers of changing the compensation threshold from per trading interval to per event is not significant, particularly noting the infrequent nature and short duration of intervention events that trigger intervention pricing. Further, spot prices are likely to be relatively high during such interventions, making it more likely that compensation owed per trading interval will exceed $5,000 (meaning that changing the threshold to apply on a per event basis will not result in increased compensation payments to affected participants, since these compensation costs are incurred in any event).

This conclusion is supported by data provided by AEMO regarding the amount of affected participant compensation paid in connection with the RERT activations that occurred on 24 and 25 January 2019. As set out in table 4.4 below, there is only a marginal difference in the amount of compensation paid to affected participants when compensation is calculated on a per event basis rather than on a per trading interval basis.

**Table 4.4: Compensation payable on a per trading interval basis as compared with a per event basis**

| | PER TRADING INTERVAL BASIS | | PER EVENT BASIS | |
|---|---|---|---|---|
| RERT activations | 24 January 2019 | 25 January 2019 | 24 January 2019 | 25 January 2019 |
| Affected participant compensation | $2,921,933 | $687,676 | $2,887,652 | $730,460 |
| Eligible person compensation | -$593,805 | -$9,438 | -$688,837 | -$7,695 |

Source: AEMO
Note: Positive amounts are payable by AEMO to affected participants. Negative amounts are payable by eligible persons to AEMO. Eligible persons are SRD unit holders who are entitled to receive an amount from AEMO where there has been a change in flow of a directional interconnector. They are defined as affected participants in chapter 10 of the NER.

As can be seen, there is little difference in the compensation payable to affected participants when compensation is payable on a per event basis. For the event that occurred on 24 January, the amount of affected participant compensation payable would have been 1.2 per cent less had it been calculated on a per event basis rather than a per trading interval basis. For the event that occurred on 25 January, the amount payable would have increased by 6.1 per cent. Taken together, the increase in compensation payable across the two days would have been 0.2 per cent.

For eligible persons, the results across the two events were more variable. With compensation calculated on a per trading interval basis, eligible persons were required to repay AEMO just under $600,000 in relation to the 24 January RERT event. By contrast, they would have had to repay considerably more to AEMO had the compensation been calculated on a per event basis.[113]

For the event that occurred on 25 January 2019, the amount payable by eligible persons to AEMO on a per trading interval basis was slightly more than the equivalent amount calculated on a per event basis. Across the two days, however, the net effect of calculating compensation based on a per event basis would have been a marked increase in the quantum of revenue repaid by eligible persons to AEMO.[114]

While intervention events will differ in nature and duration, it is reasonable to conclude that the kinds of interventions that will trigger intervention pricing under the revised RRN test will feature high prices. As such, the impact on consumers of changing the compensation threshold is expected to be limited.

For these reasons, the Commission considers that it is appropriate for affected participants to be compensated during intervention events that trigger intervention pricing so that they are "made whole", rather than losing revenue as a consequence of the compensation threshold applying per trading interval.

## 4.3 Should the quantum of the threshold change?

The consultation paper considered whether the $5,000 threshold should remain at the level of $5,000 or be adjusted upwards if the threshold is to be applied per intervention event rather than per trading interval.[115]

The consultation paper notes that the SW Advisory Report[116] referenced in the AEMO rule change request and the Harding Katz report[117] both consider the threshold should be set at a higher level if it is to apply per intervention event, rather than per trading interval.

As discussed in the consultation paper, a key challenge in determining the optimal approach to the compensation threshold is that there is no prescribed method by which to determine the appropriate length of AEMO intervention events. These can range from a few hours to, in

113 This is to the benefit of consumers, since it will mean that less money has to be recovered via the compensation recovery amount which is used to pay compensation owing to affected participants and, where directions are issued, directed participants.

114 Again, this is to the benefit of consumers.

115 AEMC, Investigation into system strength in the NEM consultation paper.

116 SW Advisory and Endgame Economics, op cit. The report recommends "that the Rule be changed such that a threshold – not necessarily $5,000 – apply for the whole intervention rather for each trading interval on its own": p. 51.

117 Harding Katz considered "there is a case for seeking an amendment to clause 3.15.7B(a4) (and possibly 3.12.2(b)) so that the threshold applies at the direction level. It is less clear what this threshold amount should be, noting that it may be substantially more than $5,000." Harding Katz, *Compensation for Directions in Queensland on 28 and 29 March 2017*, September 2017, p. 3.

one case, 21 days (in April-May 2018). The result is that the application of the threshold, if applied per intervention event, can have widely varying impacts (both on generators and consumers), depending on the length of each given intervention event.[118]

The consultation paper flagged an alternative approach which was adopted in the AEMC Final Determination regarding *Participant compensation following market suspension*. Rather than apply a threshold per trading interval or per market suspension, that framework imposes a fee per claim (to be determined by AEMO under its Market Suspension Compensation Methodology). This applies when a participant lodges a claim for additional compensation but does not apply to automatically calculated compensation. This is designed to achieve the objective of the compensation threshold, namely, deterring immaterial claims and helping to recoup the administrative outlays associated with determining compensation claims.

### 4.3.1 Stakeholder views in response to the consultation paper

As indicated in table 4.2 three stakeholders supported further consideration of the compensation threshold quantum.

AGL stated in its submission that, should the threshold apply per event as proposed, it may be appropriate to raise the $5,000 threshold to a higher set amount.[119]

Engie noted that the basis for setting the threshold at a particular level or reference point needs further consideration and that some assessment of the costs involved to process a compensation adjustment would inform considerations of whether the threshold should be changed.[120]

TasNetworks noted that changing the compensation threshold to apply per intervention event could have widely differing effects on generators and consumers given the variable length of each intervention. Given this, it is questionable whether the $5,000 threshold would remain appropriate under such a change and TasNetwork suggested that further investigation and quantification of this issue be undertaken to ascertain the impacts of changing the threshold.[121]

While one stakeholder submitted that five-minute settlement will have the effect of making the threshold six times larger, this is not the case. The five-minute settlement rule amends clauses 3.12.2 and 3.15.7B to refer to a 30-minute period rather than a trading interval.[122]

AEMO's submission notes its compensation determination costs are approximately $5,000 per event and states that these costs are unlikely to increase with the number of trading intervals covered by an intervention.[123]

118 AEMC, Consultation paper, op cit, p. 110.
119 AGL, Submission to the consultation paper, p.3.
120 Engie, Submission to the consultation paper, p.6.
121 TasNetworks, Submission to the consultation paper, p.7.
122 Engie, Submission to the consultation paper, p. 6.
123 AEMO, Submission to the consultation paper, p.8.

Table 4.5: **Stakeholder views on compensation threshold quantum**

| APPROACH | STAKEHOLDERS |
|---|---|
| Further consider threshold quantum | AGL, Engie, TasNetworks (3) |

Source: AEMC analysis

### 4.3.2 Stakeholder views in response to the draft determination

No stakeholders commented on the quantum of the threshold in submissions to the draft determination.

### 4.3.3 Commission's conclusion

The Commission has opted not to change the quantum of the threshold. This is based on advice from AEMO that the cost of determining compensation amounts for both directed and affected participants is approximately $5,000 per event.[124] As such, the Commission does not consider it necessary to change the quantum of the threshold, noting that adopting a higher threshold would create a risk that a participant would incur loss if it was unable to recover its costs due to the application of the threshold (even if applied per event rather than per trading interval).

The Commission notes that the administrative cost to a participant of lodging an additional compensation claim may, in practice, mean that smaller claims are not pursued (AEMO's submission to the consultation paper notes that it has not received claims for less than $20,000[125]). However, the Commission considers that participants should have the ability to lodge a claim for any amount in excess of $5,000 if they wish to do so. This will be particularly important to prevent participants incurring loss in the event they are subject to or affected by frequent interventions of relatively short duration.

The Commission notes that there is no simple and predictable alternative approach to determining the threshold quantum, such as setting the threshold having regard for the length of the direction. As noted in the consultation paper, there is no prescribed method to determine the length of a given intervention event. The Commission considers that this is appropriate given that the conditions giving rise to the need for an intervention event cannot be known in advance.

Further, AEMO is required to revoke a direction as soon as it is no longer required.[126] Accordingly, if a generator indicates to AEMO that it wishes to participate in the market voluntarily then AEMO must cancel the direction.[127] In other words, the duration of an AEMO intervention event is not within AEMO's control as it is a function of exogenous factors.

124 AEMO, Submission to consultation paper, pp 8-9.

125 ibid

126 NER, clause 4.8.9(b)(2)

127 Similarly, the NER provide that the RERT should only be used to address an anticipated reliability issue or, where practicable, a power system security issue: NER, rule 3.20.

Imposing requirements on AEMO to confine intervention events to a particular duration in order to adopt an appropriately targeted threshold quantum would inefficiently curtail AEMO's ability to intervene in the market as circumstances require.

The Commission has also not opted to adopt the approach set out in the *Participant compensation following market suspension* final determination (i.e. requiring AEMO to determine a fee for processing compensation claims).[128] The fee in that case is designed to help offset the cost to AEMO of processing additional compensation claims. However, in the case of directed and affected participants, the threshold does not operate as a fee but as a condition precedent which determines whether compensation is payable. That is, if automatically calculated compensation exceeds the $5,000 threshold, or if a claim for additional compensation or dispute as to liability exceeds the $5,000 threshold and is accepted (by AEMO or, for larger claims, the independent expert), the amount claimed will be paid in full.

Accordingly, and having regard for AEMO's advice as to its administrative costs of processing compensation claims, the Commission considers it appropriate to retain the threshold at its current level and apply the threshold per direction rather than per trading interval (in the case of directed participant additional compensation claims) and, in the case of affected participants, on a per intervention event basis rather than per trading interval.

## 4.4 Implementation

The final rule will commence on 20 December 2019 but may not apply immediately if a direction is in effect when the schedule commences. This is because AEMO raised a concern with the AEMC about what would occur if it had issued a direction for a service for which a dispatch price or ancillary service price is not determined by the dispatch algorithm prior to the rule commencing, and this direction was still in effect post commencement. In this scenario, AEMO was concerned that it would be required to apply two different intervention pricing regimes to the same direction.

To address this concern, the final RRN test rule contains a transitional provision setting out that, if AEMO has issued a direction prior to the commencement date of Schedule 1 of the final RRN test rule, and that direction remains in effect on or after the commencement date, then, for so long as the direction remains in effect, old Chapter 3 (together with related definitions) will apply in respect of the AEMO intervention event corresponding with the direction. This means that the intervention pricing framework in Chapter 3 of the rules (as it stood immediately prior to commencement of Schedule 1 of the final RRN test rule) will apply to the AEMO intervention event corresponding with that direction for so long as that direction remains in effect.

The rules governing affected participant compensation and the threshold for participant compensation are also in Chapter 3 of the rules. As a result, the version of Chapter 3 in effect immediately prior to the commencement of Schedule 1 of the final RRN test rule will also

128 AEMC, *Participant compensation following market suspension, Rule Determination*, 15 November 2018.

apply to these matters in relation to the AEMO intervention event corresponding with the direction so long as that direction remains in effect.

# ABBREVIATIONS

| | |
|---|---|
| AEC | Australian Energy Council |
| AEMC | Australian Energy Market Commission |
| AEMO | Australian Energy Market Operator |
| AER | Australian Energy Regulator |
| Commission | See AEMC |
| FCAS | Frequency control ancillary services |
| IPWG | Intervention Pricing Working Group |
| MCE | Ministerial Council on Energy |
| NEL | National Electricity Law |
| NEM | National electricity market |
| NEMDE | National electricity market dispatch engine |
| NEO | National electricity objective |
| RERT | Reliability and emergency reserve trader |
| RRN | Regional reference node test |

# A SUMMARY OF ISSUES RAISED IN SUBMISSIONS

This appendix sets out the issues raised in the first round of consultation on this rule change request and the AEMC's response to each issue.

**Table A.1: Summary of issues raised in submissions to the consultation paper**

<table>
<tr><th>STAKEHOLDER</th><th>ISSUE</th><th>AEMC RESPONSE</th></tr>
<tr><td>AGL</td><td>AGL strongly supports the AEMO rule proposal to apply this threshold per intervention event. AGL accepts that, should the rule be made, it may be appropriate to raise the $5000 threshold to a higher set amount. (P.3.)</td><td rowspan="4">The final rule applies the threshold per direction for directed participant additional compensation claims, and applies the threshold per intervention event for affected participants.<br><br>The final rule will provide participants, AEMO and independent experts with clarity and certainty regarding the calculation of compensation.<br><br>The 5-minute settlement rule amends relevant clauses to refer to a 30-minute period rather than a trading interval, so the issue of concern to Engie will not materialise.</td></tr>
<tr><td>Australian Energy Council</td><td>The Energy Council supports AEMO’s rule change request to have the $5,000 threshold apply to each event, rather than each trading interval. Although it does increase the likelihood of smaller claims, the starting point for additional costs of the 90th percentile of the 12-month RRP does reduce the probability that its exercise will be unnecessarily frequent. (P.3.)</td></tr>
<tr><td>Engie</td><td>Engie notes that independent experts have taken different approaches to the “per trading interval” definition, so at a minimum there is value in clarifying this. (P.6.)<br><br>It would also avoid ambiguities in the per trading interval definition and issues arising over the appropriateness of the threshold when 5-minute settlement is introduced, which would indirectly make the threshold six times greater. (P.6.)</td></tr>
<tr><td>ERM Power</td><td>ERM Power supports the continued provision of “fair” compensation to parties financially disadvantaged by any market intervention event, and considers that no party should receive a “windfall” gain due to any</td></tr>
</table>

| STAKEHOLDER | ISSUE | AEMC RESPONSE |
|---|---|---|
| | intervention event. Accordingly, ERM supports AEMO's rule change to alter the threshold for compensation or repayment to AEMO of any "windfall" gain from an "intervention price trading interval" basis to an "AEMO intervention event". (P.12.) | |
| Powershop | Powershop is supportive of the proposal to change the threshold to apply per intervention event. (P.6.) | |
| Snowy Hydro | Support AEMO's rule change request to apply the $5,000 threshold apply to each event, rather than each trading interval. This will allow market participants to not be adversely affected where an intervention event comprises a number of trading intervals. (P.6.) | |
| Origin | Origin agrees that the compensation threshold should apply per event, and not per trading interval. Origin understands that the threshold mainly exists to minimise the administrative burden of processing compensation where small amounts of money are involved. However, a direction over a relatively longer duration can result in impacts which far exceed the administrative cost of calculating compensation. (P.3.) | |
| EnergyAustralia | EnergyAustralia supports AEMO's rule change proposal noting that the more frequent occurrence of intervention events means that compensation not payable under the current threshold can now easily become material to affected participants. (p.3) | |
| AEMO | The $5,000 threshold currently applies to both directed and affected participants. AEMO's administrative cost of determining compensation to/from affected participants is not materially different to the administrative cost of processing additional compensation claims from directed participants. Therefore, AEMO does not believe that different compensation thresholds should apply to directed and affected | Based on advice from AEMO as to its cost of processing compensation claims, the Commission has determined that it is not necessary to change the quantum of the current threshold. Adopting a higher quantum would increase the risk that a participant would incur |

| STAKEHOLDER | ISSUE | AEMC RESPONSE |
|---|---|---|
| | participants. (P.9.) | loss as a result of the application of the threshold. |
| TasNetworks | The consultation paper correctly identifies that changing the compensation threshold to apply per intervention event could have widely differing effects on generators and consumers given the variable length of each intervention. Given this, it is questionable whether the $5,000 threshold would remain appropriate under such a change. TasNetworks suggests further investigation and quantification of this issue is undertaken to ascertain the impacts of changing the threshold. This investigation should examine changes to the threshold level as well as the impact of standardising the lengths of interventions. (P.7.) | |

Table A.2: **Summary of issues raised in submissions to draft determination**

| STAKEHOLDER | ISSUE | AEMC RESPONSE |
|---|---|---|
| AGL | AGL supports amending the $5,000 threshold as it applies to directed participants on the basis that it will better allow directed participants to recover their costs (p. 3).<br><br>AGL does not agree with the AEMC that the consistent approach to the $5,000 threshold across directed and affected participants would result in a materially negative outcome for either consumers or generators (p. 3).<br><br>AGL does not consider the Commission's example (CS Energy receiving affected participant compensation), appropriately reflects the impact that AEMO's proposed rule change would have on the quantum of compensation paid to or by affected participants. (p. 3.) | The Commission's final rule amends the compensation threshold to apply per intervention event rather than per trading interval for both directed and affected participants.<br><br>The Commission has relied for impact analysis on the examples provided by AEMO rather than on the CS Energy example. |

| STAKEHOLDER | ISSUE | AEMC RESPONSE |
|---|---|---|
| EnergyAustralia | EnergyAustralia supported AEMO's rule change proposal which aimed to amend the $5,000 compensation threshold for both directed and affected participants from per trading interval to the threshold applying per intervention event. (p. 6.) | The Commission's final rule amends the compensation threshold to apply per intervention event for both directed and affected participants. |
| Origin Energy | Origin supports the AEMC's decision to apply the compensation threshold for directed participants on a per direction basis but disagrees with the determination not to change the threshold as it applies to affected participants (p. 1).<br>Alongside this draft determination, the AEMC has made recommendations for future rule changes to narrow the definition of affected participants. To ensure adequate consultation and due process the AEMC should first embark on the rule change processes before making any significant changes relating to the treatment of affected participants (p. 1). | The Commission received a rule change request from AEMO on 15 September 2019 to narrow the circumstances in which affected participant compensation is payable.<br>The Commission published a consultation paper relating to this rule change request on 24 October 2019 and has considered this on an expedited basis.<br>The Commission made a final rule on 19 December 2019 to narrow the circumstances in which affected participant compensation is payable.<br>In light of that rule change the Commission's final rule now amends the compensation threshold for both directed and affected participants in line with the original rule change request from AEMO. |
| Snowy Hydro | Snowy Hydro supports the Australian Energy Market Operator (AEMO) rule change request to have the $5,000 threshold apply to each event, rather than each trading interval so that market participants are not adversely affected where an intervention event comprises a number of | The Commission's final rule amends the compensation threshold to apply per intervention event rather than per trading interval for both directed and affected |

| STAKEHOLDER | ISSUE | AEMC RESPONSE |
|---|---|---|
| | trading intervals. (p. 1.) | participants. |
| Powershop | Powershop's submission to the consultation paper supported the rule change request in May 2019 to change the application of compensation to apply per intervention event and not per trading interval. Subsequently, Powershop's submission to the draft determination supported the more preferable draft rule (namely, changing the threshold for directed participants but not for affected participants, given the recommendation to narrow the circumstances in which affected participant compensation is payable). (p. 2.) | The Commission's final rule amends the compensation threshold to apply per intervention event rather than per trading interval for both directed and affected participants (noting that affected participant compensation is now payable only in connection with interventions that trigger intervention pricing, per the recommendation in the *Interventions investigation* final report). |
| Uniting Communities | Uniting Communities supports the draft determination making no change to the affected participant threshold given the Commission's recommendation to narrow the circumstances in which affected participant compensation is payable (p. 5.)<br><br>Uniting Communities supports changing how the $5,000 threshold applies to directed participants. Uniting Communities recognises that, while this may increase the cost to consumers associated with directed participant compensation, this is reasonable given that directed parties have no option but to comply with a direction and should be able to recover their reasonable and efficient costs. (p. 6.) | |

# B 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.

## B.1 Final rule determination

In accordance with ss. 102 and 103 of the NEL the Commission has made this final rule determination and accompanying final rule in relation to the rule proposed by AEMO.

The Commission's reasons for making this final rule determination are set out in chapter 3 and in more detail in chapter 4.

A copy of the final rule is attached to and published with this draft rule determination. Its key features are described in section 3.3.

## B.2 Power to make the rule

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 s. 34 of the NEL as it relates to operation of the national electricity market and the activities of persons (including Registered Participants) participating in the national electricity market or involved in the operation of the national electricity system.[129]

## B.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 the first and second 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.[130]

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 Australian Energy Market Operator (AEMO)'s declared network functions.[131] The final rule is compatible with AEMO's declared network functions because it is unrelated to them and therefore it does not affect the performance of those functions.

129 Section 34(1)(a)(i) NEL.

130 Under s. 33 of the NEL 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.

131 Section 91(8) of the NEL.

## B.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 final rule does not amend any clauses that are currently classified as civil penalty 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 civil penalty provisions.

## B.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.

# C EVENTS WHICH TRIGGER INTERVENTION PRICING UNDER THE REVISED RRN TEST

*Reliability directions*

As noted above, two “reliability” directions have been issued since 2010 in response to a shortage of energy. These directions (which meet the criteria for intervention pricing under the revised RRN test) were issued to Pelican Point in February and March 2017 and had a combined duration of less than five hours.[132]

The first direction was issued to Pelican Point on 9 February 2017 and lasted just under four hours.[133] Counteraction instructions[134] were issued to three generators in South Australia and as such these generators would have been eligible to receive affected participant compensation if the $5,000 per trading interval compensation threshold was met. No information is publicly available about whether affected participant compensation was paid in relation to this event but we can nonetheless consider how a ”per event” threshold might increase compensation costs during such an event.

To estimate the potential cost of changing the threshold to apply per event rather than per trading interval, the Commission has conservatively assumed that no affected participant compensation was paid as a result of this intervention on the basis that the amount owing to each affected participant in each trading interval was less than $5,000.[135]

Assuming that the compensation threshold was not met in any interval during the 9 February 2017 intervention, but total compensation owing did exceed $5,000 (i.e. the compensation threshold would be met if it applied on a per event basis), then the increased cost of compensating each affected participant in South Australia would be ~$5,000 x 8 trading intervals = ~$40,000 (noting that the amount owing per trading interval must be below $5,000 in order not to meet the threshold). For all three affected participants, the total cost of adopting a per event compensation threshold would therefore be ~$120,000. As noted earlier, this is an upper limit based on conservative assumptions. Prices during this event varied widely but peaked at around $9,500/MWh and were rarely below $1,000/MWh.[136] In such circumstances, it is likely that the per trading interval threshold would have been exceeded in many trading intervals.[137]

132 AEMO, *NEM Event - Direction to South Australia Generator - 9 February 2017,* July 2017 and AEMO, *NEM Event – Direction to South Australia Generator – 1 March 2017,* January 2018.

133 AEMO, *NEM Event - Direction to South Australia Generator - 9 February 2017*, July 2017.

134 Counteraction instructions are used to minimise the market impact of an AEMO Direction, as required by clauses 3.8.1(b)(11) and 4.8.9(h)(3) of the NER. For example, counteraction Instructions may be used to reduce the generation output from one unit and increase the generation from another unit by approximately the same amount. Conceptually, resulting in minimal distortion to the market by containing the impact of the Direction within the region where the Direction was issued. AEMO, NEM Event - Direction to South Australia Generator - 1 March 2017, January 2018

135 However, if the value of compensation owing in some or all of the trading intervals did exceed the threshold, this would lessen the cost implications for consumers of applying the threshold on a per event rather than per trading interval basis. This is because, in those intervals, the threshold was already met - meaning it did not serve to limit the quantum of compensation payable such that changing the threshold to a per event basis would result in greater compensation costs being passed through to consumers.

136 AEMO, ibid, p. 15.

137 The Commission notes that this intervention event produced unexpected price outcomes in other regions of the NEM due to issues with the intervention pricing methodology. AEMO has undertaken detailed analysis of these issues and changes to the

A further direction was issued to Pelican Point GT12 on 1 March 2017. Counteraction instructions were issued to Pelican Point GT11 (making it a potential recipient of affected participant compensation). This intervention lasted for less than an hour and the report notes that there were no affected participants for this event on the basis that compensation is only payable for trading intervals when the dollar impact exceeds $5,000.[138] Had the threshold applied on a per event rather than per trading interval basis, it is possible that affected participant compensation would have been payable. The potential increase in compensation costs in connection with this intervention would have been less than $10,000 (being 2 x $5,000, assuming Pelican Point was the only affected participant).

*Directions relating to FCAS*

Two other direction events would trigger intervention pricing under the revised RRN test and thus create an entitlement to affected participant compensation. Both occurred on 1 December 2016 when South Australia was islanded due to the loss of the Heywood interconnector and insufficient frequency control ancillary services (FCAS) being available locally to maintain system security.

The first direction was issued to Torrens Island A1 generating unit to provide 10 MW of fast raise FCAS. The market event report makes no reference to affected participants and it is assumed that there were none on the basis that AEMO would not seek to offset this direction to Torrens Island given that inadequate FCAS was available. This direction was in place for less than four hours. In cases such as this where there are no affected participants, changing the compensation threshold to apply per event rather than per trading interval will have no impact on consumers.

The second direction was to Pelican Point. As the largest generator online at the time, Pelican Point constituted the largest contingency event and thus determined the required level of FCAS. To reduce demand for FCAS, AEMO directed Pelican Point to reduce its output for a period of less than three hours.[139]

To counteract this intervention, AEMO instructed Mintaro to increase its output for a period of less than two hours, making it an affected participant. It is not known how much affected participant compensation, if any, was paid to Mintaro with respect to this intervention. However, given the short duration of this intervention event, applying the compensation threshold on a per event basis rather than per trading interval would have a limited impact on total compensation costs.

*RERT activations*

Intervention events comprise both directions and the RERT. At the time of writing, the RERT had been dispatched on four occasions and intervention pricing was implemented every time.

intervention pricing methodology are being implemented to address them. Affected participant compensation would have been payable to generators in other regions as a result of constraint equations binding in the intervention pricing run which did not bind in the dispatch run. The outcomes during that event were unexpected and exceptional, and changes have been implemented to address the issues that led to these outcomes.

138 AEMO*, NEM Event – Direction to South Australia Generator – 1 March 2017,* January 2018, p. 13

139 This will trigger intervention pricing under the revised RRN test on the basis that the direction was to obtain a service which was a substitute for FCAS – meaning that there is a relevant scarcity price signal to preserve through the application of intervention pricing: see clause 3.9.3(b)(2).

However, on 19 December 2019, the Commission published the RRN test rule which extends the RRN test so it encompasses the RERT in addition to directions.[140] This means that it is no longer a given that intervention pricing will apply every time the RERT is activated: AEMO will first need to apply the test in clause 3.9.3(b) of the NER to determine whether intervention pricing should be implemented.[141]

Each of the RERT activations that has occurred to date meet the criteria for intervention pricing in the revised RRN test and so intervention pricing would still apply if interventions like these were to occur in future. This means that affected participant compensation would, under the affected participant compensation rule, remain payable. As such it is appropriate to consider how a per event rather than per trading interval compensation threshold would impact costs to consumers in connection with RERT activations.

As with directions that meet the criteria in the revised RRN test, RERT activations are generally only of short duration. This contrasts with the system strength directions used by AEMO to illustrate the impact of the rule change request on costs to consumers. The two directions analysed in figure 4.1 both lasted three days which equates to 144 trading intervals.

As noted above, the RERT has been dispatched on four occasions in the last two years: in November 2017, January 2018 and on two days in January 2019. No affected participant compensation was paid as a result of the RERT activation in November 2017,[142]

When the RERT was activated on 19 January 2018 for a period of six hours, $170,000 in affected participant compensation was paid.[143] Prices during this event were high: average prices in South Australia and Victoria during the RERT event were $3,537 and $1,621 respectively, while maximum prices in each region were $13,408 and $10,152.[144] This means it is likely that the per trading interval compensation threshold would have been exceeded and, as such, adopting a per event threshold would not result in significant (or potentially any) increase in compensation paid to affected participants and thus costs to consumers.

In January 2019, the RERT was activated on two consecutive days (January 24-25) in South Australia and Victoria. The RERT activation lasted less than seven hours on 24 January and less than eight hours on 25 January. Despite their short duration, significant compensation was paid to affected participants, particularly in connection with the first RERT activation: $3.3m on 24 January and $237,000 on 25 January.[145] Again, spot prices were extremely high during this period and were set to the market price cap when load shedding commenced. The cumulative price threshold was then exceeded, thereby triggering an administered price period.

140 *National Electricity Amendment (Application of the regional reference node test to the Reliability and Emergency Reserve Trader) Rule 2019 No. 12*.

141 The test requires AEMO to consider whether the activation of the RERT was for the purpose of obtaining a service for which the dispatch algorithm produces a dispatch price or ancillary service price: i.e. energy or FCAS. If the RERT was activated for some other purpose – e.g. a system security issue – intervention pricing will not apply.

142 AEMO, *Activation of unscheduled reserves for Victoria – 30 November 2017,* May 2018, p. 9.

143 AEMO, *Activation of unscheduled reserves for Victoria and South Australia – 19 January 2018,* May 2018, p. 9.

144 AEMO, ibid, p. 12.

145 AEMO, *Load shedding in Victoria on 24 and 25 January 2019,* April 2019, p. 39.

While data on individual affected participant compensation payments is not available, it is considered likely that – given the prices prevailing at the time – the per trading interval compensation threshold would have been exceeded for several if not all trading intervals. This means that adopting a per event threshold would make no (or little) difference to the quantum of compensation payable and therefore the compensation costs passed through to consumers.