

Australian Energy Market Commission

ADDITIONAL CONSULTATION PAPER

National Electricity Amendment (Compensation arrangements following application of an administered price cap and administered floor price) Rule 2016

Rule Proponent(s)
COAG Energy Council

26 November 2015

**RULE
CHANGE**

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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.

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Executive Summary

The Australian Energy Market Commission (AEMC or Commission) has prepared this Additional Consultation Paper to facilitate an additional round of public consultation in respect of a draft Rule determination decision to remove eligibility for ancillary service providers to claim compensation following an administered price limit event. This is in respect of the Council of Australian Governments' Energy Council (COAG Energy Council) rule change request to amend provisions in the National Electricity Rules (NER) relating to compensation arrangements following the application of an administered price cap or administered floor price.

Draft determination and material change of circumstances

In the draft determination for this rule change, the Commission decided to remove eligibility for compensation for ancillary services providers following the application of an administered price event. The basis for this decision was:

- allowing compensation might weaken the protection for consumers from high prices afforded by the administrative price cap, particularly where the compensation is based on opportunity loss after high prices occurred in the energy market; and
- the historic infrequency of administered price caps occurring in ancillary services markets.

Subsequent to publication of the draft determination, the first ever application of an administered price cap in an ancillary services market in the history of the National Electricity Market (NEM) occurred. Changing conditions in the market suggest that these events may not be as rare in the future as expected when the draft determination was published.

As a result of these events, the Commission is further considering its decision to remove eligibility for compensation for ancillary services providers following the application of an administered price limit event.

Issues for Consultation

This Additional Consultation Paper raises a number of issues relating to the potential of an administered price limit event occurring again in the future and the potential for ancillary services providers to incur a net loss. It also considers the extent to which eligibility for compensation creates incentives for ancillary services providers to provide ancillary services.

There is a price and reliability trade-off that needs to be considered in respect of compensation following the application of an administered price cap. On the one hand, allowing such compensation may weaken the financial protection provided for consumers by an administered price cap, by allowing eligibility for compensation based on the energy market price. This compensation is recovered from market

customers so may flow through to higher prices for retail customers. On the other hand, allowing ancillary services providers to claim such compensation may provide a number of important benefits. It may improve incentives to provide ancillary services during an administered price limit event, improve reliability and/or security of electricity supply and reduce the need for AEMO to issue directions.

The Commission's preliminary view is that, based on these considerations, it may be better to include eligibility for ancillary services providers to claim compensation following an administered price limit event.

Invitation for submissions

Stakeholders are invited to make written submissions in response to this draft determination by 10 December 2015.

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1 Introduction

On 17 October 2013, the Council of Australian Governments' Energy Council (COAG Energy Council) submitted a Rule change request to the Australian Energy Market Commission (AEMC or Commission) to amend provisions in the National Electricity Rules (NER). These provisions relate to the compensation arrangements following the application of an administered price cap or an administered floor price.

The AEMC initiated the rule change on 5 May 2015 and published a draft Rule determination on 13 August 2015.

On 5 November 2015, the AEMC published a notice to extend the period of time for making a final Rule determination until 4 February 2016 due to a material change in circumstances.¹ This extension was due to the first ever application of an administered price cap in an ancillary services market in the history of the National Electricity Market (NEM). This directly affects an element of the draft Rule determination.

Under the existing NER, ancillary services providers are eligible in some circumstances to claim compensation for costs incurred as a result of the application of the administered price cap. This Additional Consultation Paper has been prepared to facilitate an additional round of public consultation in respect of the draft Rule determination decision to remove eligibility for ancillary services providers to claim compensation.

This paper:

- sets out a summary of the rule change process to date and the reason for the extension of the final Rule determination;
- sets out background information on compensation arrangements and ancillary services in the NEM;
- sets out the assessment of eligibility for ancillary services providers in the rule change request and draft Rule determination;
- identifies a number of questions and issues to facilitate consultation on eligibility for ancillary services providers to claim compensation; and
- outlines the process for making submissions.

The appendices include background to compensation arrangements following administered price limit events, and background to ancillary services.

Submissions on this Additional Consultation Paper are due by no later than 10 December 2015.

¹ Notice under National Electricity Law, 5 November 2015.
<http://www.aemc.gov.au/getattachment/41cfd06a-18a5-46d4-8f73-c5e4c79cd88d/Notice-under-National-Electricity-Law.aspx>

2 The rule change process to date

This chapter provides a summary of the rule change process to date. This includes the COAG Energy Council's rule change request; the initiation of the rule change; the draft Rule determination and the material change in circumstances which was the basis for the Commission's decision to extend the period of time for making the final Rule determination.

2.1 COAG Energy Council rule change request

On 17 October 2013, the COAG Energy Council (Rule Proponent) made a request to the AEMC to amend provisions in the NER in relation to compensation arrangements following the application of an administered price cap or an administered floor price (Rule Change Request).

The amendments in the rule change request originate from the AEMC's recommendations made to the COAG Energy Council in the AEMC's 2013 Review of Compensation Arrangements.²

The rule change request proposes a number of amendments to address issues with the current compensation arrangements during an administered price limit event. It proposes to amend the purpose of compensation, introduce a new process for determining which parties are eligible to claim compensation, change the way in which the AEMC assesses compensation claims and change the way in which AEMO recovers the cost of compensation from market customers.

The rule change request states that it would improve reliability for consumers during an administered price limit event, improve the efficiency and transparency of the compensation assessment process, while minimising regulatory complexity associated with the recovery of compensation costs.

2.2 Initiation of rule change

On 5 May 2015, the rule change process was initiated by the AEMC. It published a Consultation Paper, proposed Rule and Notice under the National Electricity Law (NEL).³

2.3 Draft determination

On 13 August the AEMC published a draft determination and draft Rule.⁴ The draft Rule is a more preferable Rule because some of the changes are materially different

² AEMC, Final Report, Review of Compensation Arrangements following an Administered Price, Market Price Cap or Market Floor Price, 16 May 2013, Sydney.

³ Rule change initiation documents available on AEMC website:
<http://www.aemc.gov.au/Rule-Changes/Compensation-arrangements-following-application-of>

⁴ Compensation arrangements following application of an administered price cap and administered floor price

from the rule change request. The key elements of the draft Rule determination are outlined in Table 2.1 below.

Table 2.1 Summary of Draft Rule Determination

Issue	Draft Rule Determination
Purpose of compensation	<p>Clarifying that the sole objective of compensation is to maintain incentives for participants to supply energy and consume loads during an administered price limit event.</p> <p>Removing the reference to "other services" (ie ancillary services) from the objective of paying compensation during an administered price limit event.</p> <p>Removing from the objective of compensation the incentive to invest in plant that provides services during peak periods.</p>
Eligibility criteria	<p>Replacing the existing criteria based on the difference between dispatch offers and the spot price with criteria based on compensation over an eligibility period.</p> <p>Removing references to market suspension from clause 3.14.6.</p> <p>Amending eligibility criteria in an export price capped region.</p>
Eligible participants	<p>Removing eligibility for ancillary services providers to claim compensation.</p> <p>Amending eligibility for scheduled network services providers to claim compensation.</p> <p>Extending eligibility for non-scheduled generators to claim compensation.</p>
Compensation assessment process	<p>Including a requirement for the AEMC to publish notices relating to a compensation claim.</p> <p>Only require public consultation for claims involving opportunity costs.</p> <p>Removing the requirement for the AEMC to appoint an expert panel in the assessment process. Providing the AEMC with discretion to appoint an expert, if required.</p> <p>Removing the adviser from the compensation assessment process.</p>
Compensation cost recovery process	<p>Amendments such that compensation is recovered over the eligibility period and only from the region in which the administered price limit event is applied.</p>

This Additional Consultation Paper focuses on issues relating to the following elements of the draft Rule determination:

⁴ Draft Rule Determination documents available on AEMC website:
<http://www.aemc.gov.au/Rule-Changes/Compensation-arrangements-following-application-of>

- the removal of the reference to "other services" (ie ancillary services) from the objective of paying compensation during an administered price limit event;⁵ and
- the removal of eligibility for ancillary services providers to claim compensation.

The Commission has published this Additional Consultation Paper to facilitate further consultation on whether the Commission's draft decision regarding the eligibility of ancillary services providers to claim compensation for costs incurred as a result of the application of an administered price cap should be reconsidered in light of the material change in circumstances, described in section 2.4 below.

2.4 Material change in circumstances

On 13 August 2015, when the draft Rule determination was published, there had only been five administered price limit events in the history of the NEM. All of these administered price limit events were triggered in the energy market and therefore applied in both the energy and ancillary services markets.⁶ This is different from the situation where an administered price limit event is triggered in an ancillary services market and therefore only applies in ancillary services markets, and not the energy market.

The draft Rule determination to remove eligibility for ancillary services providers to claim compensation for costs incurred as a result of the application of an APC was in part based on the low likelihood of an administered price limit event being applied only in the ancillary services market, which had not occurred at that point in time.

On 12 October 2015, the first ever application of an administered price limit event in an ancillary service market occurred. The rolling sum of the uncapped ancillary lower regulation Frequency Control Ancillary Services (FCAS) prices in the South Australian region exceeding six times the cumulative price threshold of \$207,000. As a result, the administered price cap of \$300/MWh applied in all ancillary services markets in South Australia for the remainder of that day, but not the energy market. Over the period of time from 12 October 2015 until 26 November 2015, the cumulative price threshold was subsequently breached on 15 additional occasions, such that the administered price cap applied on 16 days in all South Australian ancillary services markets.

The AEMC considers this to be a material change in circumstances. Due to changing conditions in the market, these events may not be as rare in the future as expected when the draft determination was published. The changing conditions relate to inertia and frequency control requirements in regions of the NEM which have a high proportion of large-scale renewable and embedded generation. Such regions may become more dependent on interconnection to other regions to meet these requirements. AEMO has commented that as more thermal synchronous generators

⁵ In clause 3.14.6(c) of the draft Rule, the objective of the payment of compensation is to maintain an incentive for (1) Scheduled Generators, Non-Scheduled Generators and Scheduled Network Service Providers to supply energy; and (2) Market Participants with scheduled loads to consume energy.

⁶ Clause 3.14.2(d2) of the NER.

⁴ Compensation arrangements following application of an administered price cap and administered floor price

withdraw from the NEM, there is a risk that there may be insufficient inertia and FCAS available to be shared across all regions.⁷

This analysis is also supported by the recent Electricity Statement of Opportunities (ESOO), in which AEMO noted an emerging opportunity for the provision of FCAS in South Australia. This is related to a combination of the recent high FCAS prices, conditions of a credible separation risk normally existing for 5-10 per cent of the time during planned maintenance or upgrades of the interconnector and the impending withdrawal of thermal generation from this region.⁸

2.5 Final determination - extended period of time

The statutory deadline for making a final Rule determination for this rule change was 5 November 2015. On 5 November 2015, due to the material change in circumstances, the AEMC published a notice to extend the period of time for making a final Rule determination until 4 February 2016. The AEMC made this decision under s. 107 of the NEL.

The extended period of time will allow for an additional round of consultation in respect of the draft Rule determination decision to remove eligibility for ancillary services providers to claim compensation. The issues for consultation relate to those on which the AEMC seeks further stakeholder input due to potential material changes to the draft Rule. In addition to consulting on this position we are also continuing to consider the submissions received on the draft determination.

⁷ Australian Energy Market Operator, National Transmission Network Development Plan, November 2015, p4.

⁸ Australian Energy Market Operator, Electricity Statement of Opportunities, 26 October 2015, p4.

3 Assessment of eligibility for ancillary services providers in rule change request and draft Rule determination

This chapter provides a summary of the reasons outlined in the rule change request and draft Rule determination to remove eligibility for ancillary services providers to claim compensation.

Under the existing NER, ancillary service generating units and ancillary service loads are eligible to claim compensation relating to the application of an administered price limit event.⁹

3.1 Rationale in the rule change request

The rule change request proposed to remove eligibility for ancillary services providers. It is considered that the application of an administered price limit event in ancillary services markets would not result in ancillary services providers incurring a loss and facing a disincentive to supply these services. This is because any loss would be linked to providing energy which would entitle the service provider to compensation as a scheduled generator or scheduled load.¹⁰

3.2 Rationale in draft Rule determination

The draft Rule determination considered that eligibility for ancillary services providers should be removed. The assessment was based on the following situations in which an administered price limit event may apply in ancillary services markets. There were no stakeholder submissions in relation to eligibility for ancillary services providers in the first or second rounds of consultation for this rule change.

Administered price limit event in both energy and ancillary markets

In the draft determination, administered price limit events in both the energy and ancillary markets were considered the most likely type of administered price limit event. This was due to the fact that all administered price limit events in the NEM until that date had been triggered by a breach of the cumulative price threshold in the energy market, which results in the application of an administered price cap in both the energy and ancillary services markets.

The draft determination stated that, in this event, there is no clear risk that ancillary service generating units and ancillary service loads can incur a loss or face a disincentive to supply these services. For a generator that provides an FCAS raise service, it would receive a payment through the ancillary services market for keeping capacity in reserve, and would not incur any costs, as it is not actually generating electricity with this capacity. To the extent it did generate energy it would be entitled

⁹ National Electricity Rules, clause 3.14.6(a3)

¹⁰ COAG Energy Council, Compensation arrangements following application of an administered price cap and administered floor price, Rule change request and proposal, 16 October 2013, p4.

⁶ Compensation arrangements following application of an administered price cap and administered floor price

to make a claim for compensation as a scheduled generator in the draft Rule if its costs were greater than its revenues over the eligibility period.

Administered price limit event in ancillary services market only

In the draft determination, the application of an administered price cap only in the ancillary services market was considered less likely, as this event had not yet happened in the NEM. In this event, if the uncapped energy price is higher than the capped ancillary services price, a generator could potentially face a reduction in revenue, as its output in the energy market could be reduced to provide reserve capacity in the ancillary services market.

The draft determination stated that compensation should not be available in this event as it would be based on the difference between the capped price in the ancillary services market and the uncapped price in the energy market, which could be high. Allowing compensation in these circumstances could weaken the protections provided to customers by the administered price cap in ancillary services markets by allowing access to the energy market price. The administered price cap can protect consumers from the effects of extreme prices in the wholesale market, which would otherwise be borne by retailers and then may be passed on to consumers directly or through higher contract prices to recognise the level of risk.

For this reason, and given that this was expected to be an event that occurs rarely, it was decided that eligibility for ancillary services providers should not apply in this event.

4 Issues for consultation

This chapter sets out a number of issues for consultation relating to eligibility for ancillary services providers to claim compensation. Stakeholders are encouraged to make written submissions to the AEMC on these issues.

The issues for consultation take into account the assessment framework set out in the draft determination, potential changes required to implement the proposed rule change, the recent series of administered price cap events in ancillary service markets and the incentives of ancillary services providers.

These issues relate to the NEO because eligibility for compensation for ancillary services providers is relevant to both:

- reliability of supply, since the level of compensation can affect the incentive to provide ancillary services; and
- the price of electricity, since any compensation paid is recovered from market customers and ultimately consumers of electricity.

It is noted that the issues in this chapter only relate to the provision of FCAS during an administered price limit event. It does not relate to the provision of other ancillary services such as System Restart Ancillary Services (SRAS) and Network Support and Control Ancillary Services (NSCAS). The reasons for this are explained in Appendix A.2.1.

FCAS is important for maintaining the frequency of the electricity system within the normal operating band. If frequency deviates too far from its normal level, the operation of consumer and generation equipment can be impaired and, in some extreme cases, damaged. If the frequency declines to dangerous levels, potential exists for the need for under frequency load shedding or shut down of the entire electricity system. The different types of FCAS are explained in Appendix A.2.2.

4.1 Likelihood of administered price limit events in ancillary service markets

The draft Rule determination to remove eligibility for ancillary services providers was in part based on the low likelihood of an administered price limit event being applied only in an ancillary service market, which, as at the date of the draft determination, had not occurred previously in the NEM.

Since the draft determination, an administered price limit event has been applied in ancillary markets (only) on a number of occasions. Due to changing conditions in the NEM, which are outlined in section 2.4, these events may not be as rare in the future as expected when the draft determination was published.

The changing conditions in the NEM relate to inertia and frequency control requirements, the proportion of large-scale renewable and embedded generation, the

impending withdrawal of thermal synchronous generators¹¹ and conditions of credible separation risk of a region during planned maintenance or upgrade of an interconnector.¹²

Stakeholder's views are sought on the likelihood of these events occurring again in the NEM.

Question 1

Has the likelihood that an administered price limit event will occur again in an ancillary service market in the NEM, but not at the same time in the energy market, increased? What factors are likely to cause this?

4.2 Potential for ancillary services providers to incur a net loss during an administered price limit event

There are a large number of different scenarios in which potential exists for a loss to be incurred relating to the provision of ancillary services during an administered price limit event. This is due to the fact that there are eight different types of FCAS which can each be provided by scheduled generators and scheduled loads, during circumstances when the spot price is capped in one or both of the energy and ancillary services markets, and the uncapped energy price may be higher or lower than the capped ancillary services price.

The draft Rule determination changed the eligibility criteria to allow compensation to be based on whether a market participant incurs a net loss over the eligibility period.¹³ This is based on whether a market participant's total costs (ie direct and/or opportunity cost) exceed their total revenue over the eligibility period. In the final Rule determination the Commission will set out the eligibility criteria for ancillary services providers and the circumstances in which compensation may be paid to ancillary services providers.¹⁴

Outlined below is a discussion of direct and opportunity costs which could potentially be incurred relating to the provision of ancillary services during an administered price limit event. There may be other direct and opportunity costs that are also relevant and should be considered. Stakeholder's views are sought on whether these costs are appropriate for recovery and likely to result in an ancillary service provider incurring a net loss.

¹¹ Australian Energy Market Operator, National Transmission Network Development Plan, November 2015, p4.

¹² Australian Energy Market Operator, Electricity Statement of Opportunities, 26 October 2015, p4.

¹³ The "eligibility period" starts from the first trading interval when the spot price is set by the administered price cap or administered floor price, until the last trading interval of that day.

¹⁴ In addition, amendments may be required to the compensation guidelines to reflect the final Rule. This may include amending the definition of opportunity cost.

Direct costs

Providers of ancillary services could potentially incur costs which are directly attributed to the provision of these services (and not energy or load) during an administered price limit event. Direct costs could relate to (but not be limited to) the increased wear and tear of generation equipment that is used to provide ancillary services.

The draft Rule determination removed the incentive to invest in plant from the objective of compensation. The position under these changes in the draft Rule would be to not include compensation for direct costs associated with past capital investment in ancillary services equipment.

Opportunity costs

Providers of ancillary services could potentially incur opportunity costs relating to the price differential between the spot price in the uncapped energy market and capped ancillary service markets during an administered price limit event. There are a wide range of different scenarios that may exist based on the type of FCAS provided and relative prices of energy and ancillary service markets. Two possible scenarios are outlined below:

- **Ancillary service scheduled generator providing raise FCAS** - if the ancillary service price is capped at \$300/MWh in ancillary services markets and uncapped at \$2,000/MWh in the energy market, a scheduled generator could potentially miss out on higher revenue in the energy market for being enabled to keep capacity in reserve to provide the raise service. The opportunity cost would be the difference between the dispatch price in the energy market and the ancillary service price, multiplied by the total number of megawatt hours that the scheduled generator could have supplied in the energy market instead of the ancillary services market; and
- **Ancillary service scheduled load providing lower FCAS** - if the ancillary service price is capped at \$300/MWh in ancillary services markets and uncapped at -\$900/MWh in the energy market, a scheduled load could potentially miss out on higher revenue in the energy market for being enabled to reduce their energy consumption to provide the lower service. The opportunity cost would be the difference between the dispatch price in the energy market and the ancillary service price, applied to the total number of megawatt hours that the scheduled load could have consumed in the energy market instead of the ancillary services market.

The potential size of a net loss based on opportunity costs could be large, as shown below. The example relates to the recent conditions in South Australia, in which there was a credible separation risk during upgrade of the interconnector which caused AEMO to locally procure 35 MW of regulation FCAS from the South Australian region. The example assumes conditions such as these, an administered price limit event

lasting for 24 hours in the FCAS market¹⁵, and a dispatch price in the uncapped energy market that is continuously around \$2000/MWh for this entire period of time.¹⁶ In these circumstances, the total amount that all of the providers of regulation FCAS in South Australia could, in aggregate, make a claim for based on opportunity costs alone could be around \$1.4m.¹⁷ The AEMC would then assess any claim for compensation. To the extent compensation was allowed this would all be recovered from customers in South Australia in this example.

Question 2

Are there circumstances where an ancillary service provider could incur a net loss relating directly to the provision of FCAS during an administered price limit event? If so, what type of costs would be incurred?

4.3 Interaction of energy and ancillary services markets

Under the current arrangements, there is a strong relationship between the ancillary services market and the energy market. This is because the prices of energy and ancillary services are co-optimised in the National Electricity Market Dispatch Engine (NEMDE) such that generators are commercially indifferent as to whether they supply energy or FCAS in the market. In addition, many providers of ancillary services can also provide energy.

This can create a challenge where an administered price cap occurs in one of these markets but not the other. This can only happen when an administered price cap applies in the ancillary services market, since where an administered price cap applies in the energy market it automatically applies in the ancillary services market.

In these circumstances, an ancillary services provider may incur an opportunity loss through providing ancillary services if that has reduced the provider's ability to take advantage of higher (uncapped) energy prices.

Allowing recovery for such an opportunity loss would, however, weaken the protection provided to customers by the cap in the ancillary services market because it would allow the ancillary services provider access to an uncapped price. Since compensation is recovered from market customers who are then likely to recover it from consumers, consumers also benefit from the protection the administered price cap provides.

This was part of the rationale provided in the draft determination - along with the infrequency of administered price caps applying in the ancillary services market - for removing eligibility for compensation for ancillary services providers. In addition, if

¹⁵ This is the longest possible duration for a single administered price limit event, which can vary in duration from 30 minutes to 24 hours.

¹⁶ The AEMC has arbitrarily chosen this energy price for the purposes of this example.

¹⁷ This would be 35 MW multiplied by \$1,700 (the difference between the energy price and the administered price cap of \$300 in the ancillary services market) multiplied by 24 hours.

opportunity cost should reflect the foregone opportunity to use scarce resources at a later point in time, allowing compensation based on the difference between a capped and uncapped energy price at a particular point in time would be inappropriate.

Question 3

To what extent would the protection provided to customers by the administered price cap be weakened if the NER were to continue to allow opportunity costs based on the price differential between the energy and ancillary services market?

4.4 Potential for reduced incentives to provide ancillary services during an administered price limit event

The Australian Energy Market Operator is responsible for operating the power system in a safe, secure and reliable manner. Ancillary services play an important role in allowing AEMO to control the technical characteristics of the system, such as frequency and voltage.

Under the existing NER, one of the stated objectives for the payment of compensation for costs incurred as a result of administered price events is to maintain an incentive to supply energy and other services (ie ancillary services) during an administered price limit event. This objective was removed in the draft Rule determination, along with the removal of eligibility for ancillary services providers to claim compensation.¹⁸

These changes may reduce the incentive to provide ancillary services during an administered price limit event. If the potential for compensation for an ancillary services provider was removed following the application of an administered price cap in the ancillary services market, ancillary service providers may be less inclined to provide ancillary services. This may be particularly the case if providing ancillary services means forgoing opportunities to offer energy into the energy market. If less ancillary services were provided this could have reliability impacts that could impact consumers, including the possibility of blackouts.

One example of this is the case of a scheduled generator providing a raise FCAS service during an administered price limit event and facing a capped ancillary service price of \$300/MWh and an uncapped energy price of \$1,000/MWh. It may have an incentive to rebid capacity out of the ancillary services market and into the energy market. This could result in insufficient FCAS being offered by market participants and AEMO being required to issue directions to obtain sufficient FCAS.

AEMO has recently commented on the need for ancillary services, and an increased risk where there are disincentives to provide ancillary services:

¹⁸ The reasons for the removal of eligibility for ancillary service providers in the draft Rule determination are outlined in section 3.2. As a consequence of this change, it was considered in the draft Rule determination that there was no need to maintain an incentive for "other services" to be supplied during an administered price limit event in the purpose of compensation.

¹² Compensation arrangements following application of an administered price cap and administered floor price

- in the recent NTNDP, AEMO stated that as “more thermal synchronous generators withdraw from the NEM, there is a risk there may be insufficient inertia and network support services available to be shared across all regions”; and¹⁹
- in the recent ESOO, AEMO noted an emerging opportunity for the provision of FCAS in South Australia.²⁰

As noted in section 4.3, there is therefore a price and reliability trade-off that needs to be considered in respect of compensation following the application of an administered price cap. On the one hand, allowing such compensation may weaken the financial protection provided to market customers by an administered price cap, by allowing compensation based on the energy market price.²¹ As described above, as this compensation is recovered from market customers it may flow through to higher prices for retail customers. On the other hand, allowing ancillary services providers to claim such compensation may provide a number of important benefits. It may improve incentives to provide ancillary services during an administered price limit event, improve reliability and/or security of electricity supply and reduce the need for AEMO to issue directions.

The Commission's preliminary view is that, based on this trade-off, it may be better to include eligibility for ancillary services providers to claim compensation following an administered price limit event.

As described above in section 4.2, the costs that could be recovered in compensation by an ancillary services provider could be high if the energy price is high, because any opportunity loss could be large. However, there could also be high costs for consumers if there are reduced incentives to provide regulation FCAS. Where a lack of regulation FCAS contributes to significant reliability impacts, such as a blackout, costs for consumers could be very high, and potentially higher than the amount of compensation that could be recovered if eligibility were allowed.

The Commission's preliminary view is that given the costs involved with the reliability impacts could be larger than those relating to the price impacts, the outcome would better contribute to the NEO if ancillary services providers were eligible for compensation.

¹⁹ Australian Energy Market Operator, National Transmission Network Development Plan, November 2015, p4.

²⁰ Australian Energy Market Operator, Electricity Statement of Opportunities, 26 October 2015, p4.

²¹ This would allow ancillary service providers to claim compensation based on the uncapped energy market price, which may be higher than the capped ancillary services price for periods of time during an administered price limit event.

Question 4

If eligibility for compensation for ancillary services providers is removed from the NER, could this reduce the incentive to provide ancillary services during an administered price limit event? If so, for which type(s) of FCAS? Would the benefits in terms of incentives to provide ancillary services outweigh the disadvantages in terms of weakened protections for customers from the administered price cap?

4.5 Indicative drafting requirements

In order to facilitate consultation on the proposed rule, indicative amendments to the draft Rule have been published with this Additional Consultation Paper. These amendments show how the Commission proposes to amend the draft Rule if it determines as part of its final determination that ancillary services providers should be parties eligible for compensation for costs incurred as a result of an administered price limit event.

In addition to these proposed amendments, the indicative amendments to the draft Rule also clarify references to the spot price. The term 'spot price' has been replaced with the term 'dispatch price' in the definition of price limit event and relevant region in clause 3.14.6 and in the definition of cost recovery region in clause 3.15.10.

Question 5

Please provide any issues, comments or suggestions regarding the indicative drafting of the proposed Rule.

5 Lodging a submission

The Commission invites written submission on the issues raised in this paper. Submissions are to be lodged online or by mail by 10 December 2015 in accordance with the following requirements.

Where practicable, submissions should be prepared in accordance with the Commission's Guidelines for making written submissions on Rule change proposals.²² The Commission publishes all submissions on its website subject to a claim of confidentiality.

All enquiries on this project should be addressed to Andrew Pirie on (02) 8296 7867.

5.1 Lodging a submission electronically

Electronic submissions must be lodged online via the Commission's website, www.aemc.gov.au, using the "lodge a submission" function and selecting the project reference code "ERC0176". The submission must be on letterhead (if submitted on behalf of an organisation), signed and dated.

Upon receipt of the electronic submission, the Commission will issue a confirmation email. If this confirmation email is not received within 3 business days, it is the submitter's responsibility to ensure the submission has been delivered successfully.

5.2 Lodging a submission by mail or fax

The submission must be on letterhead (if submitted on behalf of an organisation), signed and dated. The submission should be sent by mail to

Australian Energy Market Commission

PO Box A2449

Sydney South NSW 1235

The envelope must be clearly marked with the project reference code: ERC0176.

Alternatively, the submission may be sent by fax to (02) 8296 7899.

Except in circumstances where the submission has been received electronically, upon receipt of the hardcopy submission the Commission will issue a confirmation letter.

If this confirmation letter is not received within 3 business days, it is the submitter's responsibility to ensure successful delivery of the submission has occurred.

²² This guideline is available on the Commission's website.

Abbreviations

AEMC	Australian Energy Market Commission
AFP	Administered floor price
APC	Administered price cap
AEMO	Australian Energy Market Operator
COAG Energy Council	Council of Australian Governments' Energy Council
Commission	See AEMC
CPT	Cumulative price threshold
FCAS	Frequency control ancillary services
MFP	Market floor price
MPC	Market price cap
MW	Megawatt
MWh	Megawatt hours
NSCAS	Network Support and Control Ancillary Services
NEL	National Electricity Law
NEM	National Electricity Market
NEMDE	National Electricity Market Dispatch Engine
NEO	National electricity objective
SRAS	System Restart Ancillary Services

A Background on compensation arrangements and ancillary services in the NEM

This appendix sets out background information on the current compensation arrangements following an administered price limit event and provides an overview of ancillary services in the NEM.

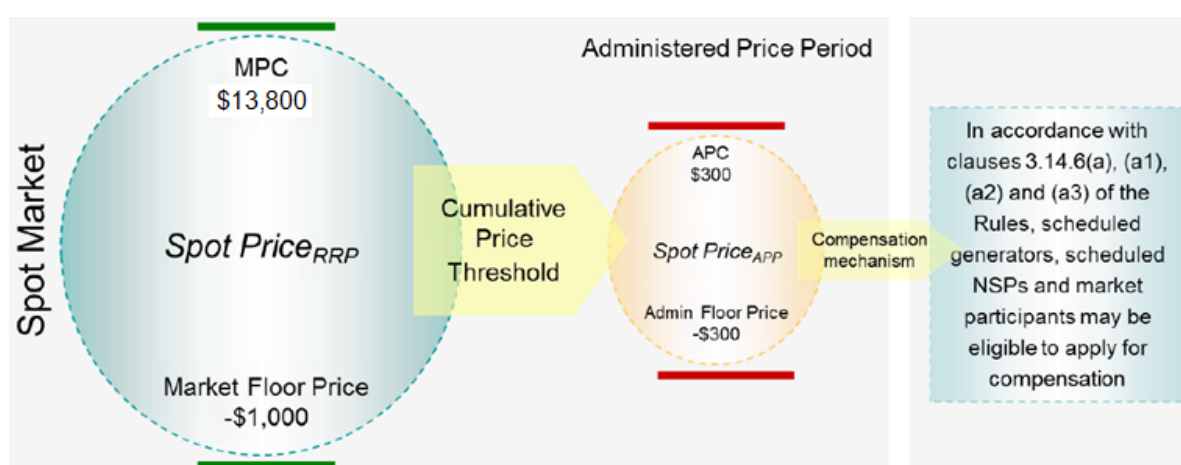
A.1 Current arrangements for compensation due to application of an administered price cap or administered floor price

Wholesale spot prices in the NEM are able to vary within a range of $-\$1,000$ to $\$13,800$ per MWh. This allows market participants the potential to earn a return on assets, and provides a framework within which investment signals can be provided. Persistent high or low prices can create risk for participants which could impact the stability of the market. To limit this variation, at times of extreme prices an administered price cap and or administered price floor can be applied.

The potential for market participants such as generators – particularly those with high costs – to incur a loss during these administered price limit events may create a disincentive for them to supply energy.²³ This could in turn have a negative impact on system reliability. To minimise these disincentives, the NER allow participants to claim compensation where they incur a loss during administered price limit events. The AEMC manages this compensation process.

The compensation provisions in clause 3.14.6 of the NER are a component of the broader market price cap, cumulative price threshold, administered price cap, administered floor price framework. This framework is illustrated in Figure A.1 below.

Figure A.1 Current compensation mechanism during an administered price limit event



²³ In the case of an administered price cap, this may occur where the participant's direct or opportunity costs are in excess of $\$300/\text{MWh}$ at which the pool price is capped. While there are not

There has only been one claim for compensation arising from an administered price limit event. This claim was made by Synergen in 2010.

A.2 Overview of ancillary services in the NEM

A.2.1 Major categories of ancillary services in the NEM

All ancillary services in the NEM can be grouped under one of the following three major categories²⁴

- Frequency control ancillary services (FCAS);
- Network support and control ancillary services (NSCAS); and
- System restart ancillary services (SRAS).

FCAS is the only category of ancillary services for which compensation is relevant in relation to the application of an administered price limit event. This is because FCAS is the only category of market ancillary services. That is, it is acquired by AEMO as part of the spot market and the prices for FCAS are determined through the dispatch process, including during an administered price limit event.²⁵

SRAS and NSCAS are non-market ancillary services that are not acquired by AEMO as part of the spot market. SRAS is acquired through ancillary services agreements with AEMO and NSCAS is acquired through connection agreements with Transmission Network Services Providers.²⁶

The remainder of this paper therefore only considers eligibility for providers of FCAS. Eligibility for providers of SRAS or NSCAS is not considered.

A.2.2 Frequency control ancillary services

There are two subset categories of FCAS - regulation and contingency. There are two types of regulation FCAS and six types of contingency FCAS, as outlined in Table A.1 below.

Regulation frequency control services are used to continually correct for minor changes in the supply and demand balance in response to minor deviations in generation or load.²⁷ Contingency frequency control services are used to ensure that NEM frequency standards are maintained following a single contingency event. This requires that the

many participants with costs in excess of \$300/MWh, the potential for them to incur a loss may create a disincentive to supply energy during an administered price limit event

²⁴ Australian Energy Market Operator, Guide to Ancillary Services in the National Electricity Market, 1 July 2010, p3

²⁵ National Electricity Rules, Version 75, Clause 3.11.1(b)

²⁶ National Electricity Rules, Version 75, Clause 3.11.1(c)

²⁷ Ibid, p5.

18 Compensation arrangements following application of an administered price cap and administered floor price

frequency deviation remains within the single contingency band and is returned to the normal operating band within five minutes.

Table A.1 Types of Frequency Control Ancillary Services in the National Electricity Market

Type of Frequency Control Ancillary Services	Description
Regulation raise	Continual correction of minor changes in the supply and demand balance.
Regulation lower	Continual correction of minor changes in the supply and demand balance.
Contingency fast raise	Provide raise service within 6 seconds to arrest the immediate frequency deviation.
Contingency fast lower	Provide lower service within 6 seconds to arrest the immediate frequency deviation.
Contingency slow raise	Provide raise service within 60 seconds to keep the frequency within the single contingency band.
Contingency slow lower	Provide lower service within 60 seconds to keep the frequency within the single contingency band.
Contingency delayed raise	Provide raise service within 5 minutes to return the frequency within the normal operating band.
Contingency delayed lower	Provide lower service within 5 minutes to return the frequency within the normal operating band.

B Indicative amendments to draft Rule - inclusion of ancillary services providers

Note: set out below is an extract of the draft Rule published on 13 August 2015 marked to show indicative changes to include ancillary service providers as parties potentially eligible for compensation under clause 3.14.6 of the NER.

[1] Clause 3.14.6 Compensation due to the application of an administered price, market price cap or market floor price

Omit clause 3.14.6 including the heading and substitute:

3.14.6 Compensation due to the application of an administered price cap or administered floor price

Eligibility for compensation

(a) For the purposes of this clause 3.14.6:

compensation guidelines means the guidelines made by the AEMC under paragraph (e).

direct costs means the costs directly incurred by the claimant due to a price limit event.

direct cost only claim means a claim made under paragraph (i) that does not include a claim for opportunity costs.

eligibility period means the period starting at the beginning of the first *trading interval* in which the price limit event occurs in a *trading day* and ending at the end of the final *dispatch interval* of the last *trading interval* of that *trading day*.

opportunity costs means the value of opportunities foregone by the claimant due to the price limit event as defined in the compensation guidelines.

price limit event means:

(1) for *Scheduled Generators* and *Non-Scheduled Generators*:

- (i) the ~~spot~~-*dispatch price* for a *dispatch interval* is set by the *administered price cap* during an *administered price period*; or
- (ii) the ~~spot~~-*dispatch price* for a *dispatch interval* is set as a result of the application of clause 3.14.2(e)(2);

(2) for *Market Participants* in respect of *scheduled load*:

- (i) the *dispatch price* for a *dispatch interval* is set by the *administered floor price* during an *administered price period*; or

- (ii) the ~~spot-dispatch~~ price for a *dispatch interval* is set as a result of the application of clause 3.14.2(e)(4); ~~and~~
- (3) for *Scheduled Network Service Providers*:
- (i) the ~~spot-dispatch~~ price for a *dispatch interval* for a *region* towards which the *Scheduled Network Service Provider* is transporting power is set by the *administered price cap* during an *administered price period*; or
 - (ii) the ~~spot-dispatch~~ price for a *dispatch interval* for a *region* towards which the *Scheduled Network Service Provider* is transporting power is set as a result of the application of clause 3.14.2(e)(2); ~~and~~
- (4) for *Ancillary Service Providers*, in respect of an *ancillary generating unit* or an *ancillary service load*, the *ancillary service price* for a *dispatch interval* is set by the *administered price cap* during an *administered price period*.

relevant region means a *region* in which the ~~spot-dispatch~~ price or ancillary service price (as relevant) is set by the price limit event.

total costs means the direct costs and opportunity costs determined in accordance with the compensation guidelines provided that, in the case of a claimant that is a *Market Network Service Provider*, the total costs must be the costs incurred due to transporting power towards the relevant region and must not include costs incurred, or revenues earned, due to transporting power away from the relevant region.

- (b) If a price limit event occurs then the following *Registered Participants* are eligible to claim compensation for the eligibility period:
- (1) a *Scheduled Generator* or *Non-Scheduled Generator* in the relevant region;
 - (2) a *Market Participant* in respect of a *scheduled load* that has been *dispatched* in the relevant region in that eligibility period; ~~and~~
 - (3) a *Scheduled Network Service Provider* that transported power towards the relevant region; ~~and~~
 - (4) an *Ancillary Service Provider* that provided *market ancillary services* in the relevant region in the eligibility period,

provided that the relevant claimant has incurred total costs during the eligibility period that exceed the total revenue it received from the *spot market* during that period.

Compensation - objective and basis

- (c) The objective of the payment of compensation under this clause 3.14.6 is to maintain the incentive for:
- (1) *Scheduled Generators, Non-Scheduled Generators and Scheduled Network Service Providers* to supply energy;
 - (2) [Ancillary Service Providers to supply ancillary services; and](#)
 - (3) *Market Participants* with *scheduled load* to consume energy, during price limit events.
- (d) The amount of compensation payable in respect of a claim under this clause 3.14.6 must be based on direct costs and opportunity costs.

Compensation guidelines

- (e) The *AEMC* must, in accordance with the *transmission consultation procedures*, develop and *publish* guidelines (**compensation guidelines**) that are consistent with paragraphs (c) and (d) and that:
- (1) define the types of opportunity costs in relation to which a person can make a claim under this clause 3.14.6;
 - (2) outline the methodology to be used to calculate the amount of any compensation payable in respect of a claim under this clause, including the methodology for calculating direct costs and opportunity costs; and
 - (3) set out the information *AEMO* and a claimant must provide to enable the *AEMC* to make a determination as to compensation under this clause 3.14.6.
- (f) The *AEMC* must ensure that there are compensation guidelines in place at all times.

Note:

The first compensation guidelines were made on 30 June 2009 and have been amended from time to time since that date. The current version of the compensation guidelines are available on the *AEMC*'s website www.aemc.gov.au.

- (g) The *AEMC* may from time to time, in accordance with the *transmission consultation procedures*, amend or replace the compensation guidelines.

Process for making a claim

- (h) A person who is eligible under paragraph (b) may make a claim for compensation by providing the *AEMC* and *AEMO* with written notice of its claim in the form required by the compensation guidelines.

- (i) A claim under paragraph (h) must be made within 5 *business days* of notification by *AEMO* that an *administered price period* has ended.

Initial steps on receipt of claim

- (j) Following its receipt of a notice under paragraph (h), the *AEMC* must promptly:
 - (1) publish a notice on its website stating that it has received a claim under paragraph (h). The notice must:
 - (i) provide information on the general nature of the claim;
 - (ii) state whether or not the claim is a direct cost only claim; and
 - (iii) state that the *AEMC* will publish a notice when it commences formal assessment of the claim; and
 - (2) seek such information from the claimant that the *AEMC* reasonably considers is required to enable assessment of the claim including, in the case of a claim other than a direct cost only claim, the methodology used by the claimant to determine its opportunity costs.

Formal commencement of claim

- (k) As soon as practicable after the *AEMC* is reasonably satisfied that it has sufficient information from the claimant to assess its claim, the *AEMC* must publish a notice on its website that it has formally commenced its assessment of the claim specifying whether or not the claim is a direct cost only claim.

Determination of direct cost only claims

- (l) Not later than 45 *business days* after publication of the notice under paragraph (k) in respect of a direct cost only claim, the *AEMC* must *publish* its final decision as to:
 - (1) whether compensation should be paid by *AEMO* in relation to the claim; and
 - (2) if so, the amount of compensation that should be paid.
- (m) Before making its final decision under paragraph (l) the *AEMC* must consult with the claimant.
- (n) In making its final decision under paragraph (l), the *AEMC* must apply the compensation guidelines unless it is satisfied that there are compelling reasons not to do so

Determination of claims other than direct cost only claims

- (o) In relation to a claim other than a direct cost only claim, the *AEMC* must, as soon as practicable but not later than 35 *business days* after publication of the notice under paragraph (k) *publish*:
 - (1) the claimant's proposed methodology for determining the claimant's opportunity costs;
 - (2) the methodology the *AEMC* proposes to use in determining the claimant's opportunity costs (**draft opportunity cost methodology**); and
 - (3) an invitation for written submissions to be made to the *AEMC* on the draft opportunity cost methodology by a date not less than 20 *business days* after the invitation is made (**submission closing date**).
- (p) Any person may make a written submission to the *AEMC* on the draft opportunity cost methodology by the submission closing date.
- (q) Not later than 35 *business days* after the submission closing date the *AEMC* must *publish* its final decision on:
 - (1) the methodology it will use in determining the claimant's opportunity costs; and
 - (2) whether compensation should be paid by *AEMO* in relation to the claim; and
 - (3) if so, the amount of compensation that should be paid.
- (r) Before making its decision on the matters referred to in paragraph (q), the *AEMC* must consult with the claimant.
- (s) In making its final decision as to the matters referred to in paragraph (q), the *AEMC* must:
 - (1) take into account the submissions made in response to the invitation referred to in subparagraph (o)(3); and
 - (2) apply the compensation guidelines unless it is satisfied that there are compelling reasons not to do so.

Extensions of time

- (t) Despite anything to the contrary in this clause 3.14.6, the *AEMC* may extend a period of time specified in this clause if it considers the extension reasonably necessary to enable it to properly assess the claim because of the complexity or difficulty of assessing the claim or because of a material change in circumstances.
- (u) The *AEMC* must publish any extension of time made under paragraph (t).

Costs of claim

- (v) The *AEMC* may recover from a claimant for compensation under this clause any costs that are incurred by the *AEMC* in carrying out their functions under this clause in respect of that claim. For this purpose the *AEMC* may require the claimant to pay all or a proportion of those costs to the *AEMC* prior to the claim being considered or determined.

[2] Clause 3.15.10 Administered price, market price cap or market floor price compensation payments

Omit clause 3.15.10 including the heading and substitute:

3.15.10 Administered price cap or administered floor price compensation payments

- (a1) In this clause 3.15.10:

cost recovery region means the *region* in which:

(1) The ~~regional reference dispatch~~ price was set by the administered price cap or administered floor price; or

(2) the ancillary service price was set by the administered price cap.

in the eligibility period.

eligibility period has the same meaning as in clause 3.14.6(a).

- (a) If the *AEMC* awards compensation to a *Scheduled Generator*, *Non-Scheduled Generator*, *Market Participant* ~~or~~, *Scheduled Network Service Provider* or Ancillary Service Provider under clause 3.14.6, then *AEMO* must determine an amount which shall be payable by each *Market Customer* who purchased electricity from the *spot market* in the cost recovery region.
- (b) *AEMO* shall determine the amounts payable for each eligibility period by each of the *Market Customers* referred to in clause 3.15.10(a) as follows:

$$\frac{APC \times E_i}{\sum E_i}$$

where

APC is the total amount of any compensation payments awarded by the *AEMC* to *Scheduled Generators*, *Non-Scheduled Generators*, *Market Participants*, ~~or~~ *Scheduled Network Service Providers* or Ancillary Service Providers in respect of that eligibility period in accordance with clause 3.14.6.

E_i is the sum of all of the *Market Customer's adjusted gross energy* amounts, determined in accordance with clauses 3.15.4 and 3.15.5, in

respect of each *trading interval* in the eligibility period and each *connection point* for which the *Market Customer* is *financially responsible* in the cost recovery region i .

$\sum E_i$ is the sum of all amounts determined as “ E_i ” in accordance with this clause 3.15.10 for all *Market Customers* in the cost recovery region.

- (c) Within 25 *business days* of being notified by the *AEMC* that compensation is to be paid to a *Scheduled Generator*, *Non-Scheduled Generator*, *Market Participant*, ~~or~~ *Scheduled Network Service Provider* or *Ancillary Service Provider* in accordance with clause 3.14.6, *AEMO* shall include in statements provided under clauses 3.15.14 and 3.15.15 separate details of any amounts payable by or to *Market Participants* as determined in accordance with this clause 3.15.10.