

Australian Energy Market Commission

**COMPENSATION GUIDELINES UNDER
CLAUSE 3.14.6 OF THE NATIONAL
ELECTRICITY RULES**

Draft Amended Compensation Guidelines

9 June 2016

GUIDELINES

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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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Introduction

These Compensation Guidelines support the operation of clause 3.14.6 of the National Electricity Rules (NER), which prescribes how compensation is to be determined by the Australian Energy Market Commission (AEMC or Commission) if a claim is made by an eligible party following the application of an administered price cap or administered floor price.

These Compensation Guidelines have been amended as a result of the Commission making a final rule on 4 February 2016 that amended the compensation arrangements following the application of an administered price cap and administered floor price.¹ All references to the NER in this document are to the NER as amended by that final rule.

NER provisions

The NER specify that the Compensation Guidelines must:

- define the types of opportunity costs in relation to which a person can make a claim for compensation under clause 3.14.6;
- outline the methodology to be used to calculate the amount of any compensation payable in respect of a claim under clause 3.14.6; and
- set out the information that the claimant and the Australian Energy Market Operator (AEMO) are required to provide to enable the AEMC to make a determination on a claim for compensation.

Purpose of the Compensation Guidelines

The purpose of the Compensation Guidelines is to provide guidance to:

- potential claimants and AEMO on the information required to be provided in support of a claim for compensation. Potential claimants include scheduled and non-scheduled generators, scheduled network service providers, scheduled loads and ancillary service providers; and
- the Commission when determining whether compensation should be paid and the amount of compensation payable.

Under clause 3.14.6(n) of the NER, in making a final decision on a claim for compensation, the AEMC "must apply these Compensation Guideline unless it is satisfied that there are compelling reasons not to do so". This means that, in most cases it is likely that the AEMC would apply these Compensation Guidelines in making a final decision on a claim for compensation. However the AEMC is not bound to apply

¹ AEMC, *Final rule determination - National Electricity Amendment (Compensation arrangements following application of an administered price cap and administered floor price) Rule 2016*, 4 February 2016.

these Compensation Guidelines and there may be circumstances in which it is not appropriate for the AEMC to apply them in deciding on a claim for compensation.

Version control

Version	Date	Details
1.0	30 June 2009	First compensation guidelines.
2.0	17 February 2011	Change of name and updated to ensure consistency with AEMC obligations and legislative powers, and provide further guidance to claimants.
3.0	9 June 2016 (draft)	Consequential amendments made to reflect the final rule relating to compensation arrangements following an application of an administered price cap and administered floor price. ² In addition, changes made to compensation claims for opportunity costs.

² AEMC, *Final rule determination - National Electricity Amendment (Compensation arrangements following application of an administered price cap and administered floor price) Rule 2016*, 4 February 2016.

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1 Background

This section provides the following background information in relation to the Compensation Guidelines:

- the compensation mechanism during a price limit event;
- purpose of the Compensation Guidelines;
- establishment and previous amendments to the Compensation Guidelines;
- commencement date for the amended Compensation Guidelines;
- objectives of paying compensation;
- interpretation of terms; and
- confidentiality of information provided during the claim assessment process.

1.1 The compensation mechanism during a price limit event

The compensation provisions in clause 3.14.6 of the NER are a component of the broader framework involving the market price cap, market floor price, cumulative price threshold, administered price cap and administered floor price. This framework helps to protect customers from extended period of high prices.

The National Energy Market (NEM) is a gross pool, energy-only market. The potential for volatility of spot prices for both energy and ancillary services is an important aspect of the market design and operation. The ability of prices to move from -\$1,000 per MWh to \$13,800 per MWh³ is designed to allow generators and other market participants to earn a return on assets and recover fixed costs, providing a signal for investment.

However, this volatility also creates risk for parties who participate in the wholesale market. A persistently high spot price can lead to participant financial distress and, in extreme cases, may impact the stability of the wider market.

While the management of risk by individual market participants is an essential and unavoidable aspect of participating in the NEM, the NER contains a number of mechanisms which help to manage risks to individual market participants and systemic market wide risks posed by periods of sustained high prices:

³ As of June 2016, the market floor price was set at -\$1,000 per MWh and the market price cap was set at \$13,800 per MWh. From 1 July 2016, the market floor price will remain at -\$1,000 per MWh and the market price cap will increase to \$14,000 per MWh. AEMC, *Schedule of Reliability Settings*, 16 February 2016.

- a spot market price cap and a market floor price⁴ which apply during the normal functioning of the market;
- a rolling cumulative price threshold that applies over a seven day period. The cumulative price threshold is currently set at \$207,000 and is calculated by the cumulative sum of spot prices in a region across a rolling seven day period.⁵ If the total exceeds the cumulative price threshold, an administered price period commences in which the spot price is collared in the region between the administered floor price of -\$300 per MWh and the administered price cap of \$300 per MWh, and cannot exceed these limits for the entirety of the administered price period;⁶ and
- a compensation mechanism for eligible parties who have incurred losses due to the application of an administered price period.

The application of an administered price cap may cause some participants to incur a loss, where the participant's direct or opportunity costs are in excess of \$300 per MWh. This may create a disincentive to supply energy during an administered price period, particularly if opportunity costs are high. Accordingly, the NER allows these participants to claim compensation for direct and opportunity costs incurred due to the application of an administrative price period.

1.2 Purpose of the Compensation Guidelines

The Compensation Guidelines support the operation of clause 3.14.6 of the NER which prescribes how compensation is to be determined by the AEMC if a claim is made by an eligible party following the application of an administered price cap or administered floor price.

In accordance with the NER, the Compensation Guidelines provide guidance to:

- potential claimants and AEMO on the information required to be provided in support of a claim for compensation; and
- the Commission when determining whether compensation should be paid and the amount of compensation payable.

Under clause 3.14.6(n) of the NER, in making a final decision on a claim for compensation, the AEMC "must apply these Compensation Guideline unless it is satisfied that there are compelling reasons not to do so". This means that, in most cases it is likely that the AEMC would apply these Compensation Guidelines in making a

⁴ Ibid.

⁵ As of June 2016, the cumulative price threshold was set at \$207,000. From 1 July 2016, the cumulative price threshold will increase to \$210,000. AEMC, *Schedule of Reliability Settings*, 16 February 2016.

⁶ The administered price period continues until the rolling seven day cumulative price threshold drops back below the level of the cumulative price threshold. The administered price period ceases at the end of the trading day in which the price drops below the cumulative price threshold.

final decision on a claim for compensation. However the AEMC is not bound to apply these Compensation Guidelines and there may be circumstances in which it is not appropriate for the AEMC to apply them in deciding on a claim for compensation.

These guidelines seek to:

- provide potential claimants with clarity as to what costs will be considered for compensation, enabling them to make more informed decisions on whether they should apply for compensation; and
- enable other parties who might be required to pay for compensation (via AEMO electricity market fees) to better understand the potential value of paying compensation.

1.3 Establishment of and previous amendments to the Compensation Guidelines

On 30 June 2009, the first Compensation Guidelines were published by the Commission.⁷ This was in response to the National Electricity Amendment (Compensation Arrangements under Administered Pricing) Rule 2008 which imposed a requirement on the Commission to develop and publish Compensation Guidelines.⁸

On 17 February 2011, the Compensation Guidelines were reviewed and amended by the Commission following the first practical application of the Compensation Guidelines to a claim in 2010.⁹

1.4 Commencement date for amended Compensation Guidelines

On 4 February 2016 the Commission made a final rule to amend the Compensation Arrangements following application of an administered price cap and administered floor price in clause 3.14.6 of the NER. This rule will commence on 29 September 2016. Clause 11.84.2 of the NER requires the Compensation Guidelines to be amended prior to the commencement of this rule.

Therefore the AEMC has amended the Compensation Guidelines as set out in this document. These Compensation Guidelines replace the Compensation Guidelines that commenced on 17 February 2011.¹⁰

⁷ AEMC, *The Determination of Compensation following the application of the administered price cap, market price cap, market floor price or administered floor price, Guidelines*, 30 June 2009,

⁸ AEMC, *National Electricity Amendment (Compensation Arrangements under Administered Pricing) Rule 2008 No. 17*, 18 December 2008.
<http://www.aemc.gov.au/getattachment/03e0be31-4d38-442e-90ae-63dc5960218b/Rule-as-made.asp>

⁹ AEMC, *Final decision, Compensation claim from Synergen Power Pty Ltd*, 8 September 2010.

¹⁰ In this draft of the amended Compensation Guidelines, all references to clause 3.14.6 in the NER refer to the new clause 3.14.6 in the final rule, that is due to commence on 29 September 2016.

Under clause 3.14.6(g) of the NER, the AEMC may from time to time, in accordance with the transmission consultation procedures,¹¹ amend or replace the Compensation Guidelines. The Commission intends to review the Compensation Guidelines only when there is a material change in market circumstances that necessitates a change to the Compensation Guidelines.

1.5 Objectives of paying compensation

The objective of the payment of compensation under clause 3.14.6 is to maintain an incentive for:

- Scheduled Generators, Non-Scheduled Generators and Scheduled Network Service Providers to supply energy;
- Ancillary Service Providers to supply ancillary services; and
- Market Participants with scheduled loads to consume energy

during price limit events.¹²

1.6 Interpretation of terms

Any term used in the Compensation Guidelines that is defined in the NER has the same meaning as it has in the NER.

Where these Compensation Guidelines refer to words in the singular, it includes the plural, and words in the plural include the singular.

1.7 Confidentiality

In determining claims for compensation under clause 3.14.6 of the Rules, the AEMC will receive information from claimants and from Registered Participants or other persons in submissions.¹³ In order to facilitate public consultation on a claim, the AEMC will publish all information provided by claimants or persons making submissions under clause 3.14.6 of the Rules, subject to any claims of confidentiality in respect of that information.

When performing its functions under clause 3.14.6 of the Rules, the AEMC is required to take all reasonable measures to protect from unauthorised use or disclosure

¹¹ NER Clause 6A.20.

¹² A price limit event is when the dispatch price is set by the administered price cap or administered floor price during an administered price period, or when the ancillary service price is set by the administered price cap during an administered price period. NER Clause 3.14.6.

¹³ Public consultation only occurs for claims involving opportunity costs and does not occur if the claim is for direct costs only. Therefore, only claims involving opportunity costs may involve submissions from other persons.

information given to it in confidence.¹⁴ Accordingly, if a claimant or person making a submission provides information to the AEMC and some or all of that information is clearly marked as confidential, the AEMC will not publish the confidential information. In such a case, the AEMC would publish the non-confidential information contained in the claim or submission and include a note to the effect that confidential information has been omitted from the published information.

Claimants and persons making submissions under clause 3.14.6 of the Rules should clearly identify the information that a claim of confidentiality relates to, and give reasons for that claim.

It should be noted that if information is omitted from a published claim or submission for reasons of confidentiality, the information is not subject to the full scrutiny that the public consultation process under clause 3.14.6 of the Rules would otherwise allow. This lack of public scrutiny may be taken into account in considering the appropriate weight to be attributed to confidential information contained in such claims or submissions.

¹⁴ Section 24, Australian Energy Market Commission Establishment Act 2004; section 31, National Electricity Law.

2 Parties eligible to apply for compensation

Pursuant to clause 3.14.6 of the NER, eligible parties will be able to apply for compensation when their total costs exceed their total revenue from the spot market (i.e. incur a net loss) over an entire "eligibility period".¹⁵

The following parties are eligible to make a claim for compensation in the following situations:

- scheduled generators and non-scheduled generators may make a claim for compensation if they incur a net loss from the supply of energy over an eligibility period. This would be due to the application of an administered price cap in the region in which the generator is located or in a region into which the generator is exporting power;
- scheduled network service providers may make a claim for compensation if they incur a net loss from the supply of energy over the eligibility period due to the application of an administered price cap in a region into which it is transporting power;
- a market participant may make a claim in respect of a scheduled load if they incur a net loss from the consumption of energy over the eligibility period. This would be due to the application of an administered floor price in the region in which the scheduled load is located or any region that is importing power from a region where the spot price is capped by an administered floor price; and
- an ancillary service provider may make a claim for compensation if they incur a net loss from the supply of ancillary services over an eligibility period in the region in which an administered price cap or administered floor price applied.

Additional detail on eligibility for scheduled network service providers, scheduled loads and ancillary service providers is provided in section 8.

¹⁵ This 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.

3 How to apply for compensation

In order to make a claim for compensation, a claimant must have lodged its notification of a claim for compensation to AEMO and the Commission within five business days of notification by AEMO that the administered price period has ended, in accordance with clause 3.14.6(i) of the NER. The claimant must make this notification in writing and it should state the administered price period for which the claim relates and the region in which the administered price period applied. Promptly after receipt of this notification, the Commission is required to publish a notice of receipt of the claim.¹⁶

To enable a claim for compensation to be assessed, the claimant must provide information to support its claim. This may occur after the provision of the notice of the claim under clause 3.14.6(h). The information to be provided by the claimant is outlined in section 4 of these Compensation Guidelines.

The level of information provided by the claimant should be sufficiently detailed and address all relevant sections that apply to its claim. Once the Commission is satisfied it has sufficient information, the Commission is required to publish a notice stating that the claim assessment process has formally commenced.¹⁷

The claimant must include a statement in the documents provided to the Commission stating that "the claimant acknowledges that the Commission is able to provide all information given to it by the claimant to any experts engaged by the Commission, as the Commission considers appropriate".

The responsibility for substantiating a claim for compensation, including the costs incurred, analysis and/or models, rests with the claimant. All information provided by a claimant in support of its claim for compensation must be verifiable. The Commission may take appropriate measures to verify any information provided, to ensure the transparency and robustness of this process. Section 1.7 of these guidelines explains how the Commission will deal with confidential information provided to it in claims.

If a claimant incurred a net loss in more than one eligibility period during an administered price period, it should submit a single claim for compensation and demonstrate how it made a net loss in each eligibility period (ie trading day). More information on the time period over which a claim for compensation relates is outlined in section 4.1.1.

All information submitted by a claimant in support of a claim for compensation must be authorised by the signature of a person or persons with authority to sign on behalf of that claimant.

Claimants should also note that the NER provide that the "AEMC may recover from a claimant for compensation, any costs that are incurred by the AEMC in carrying out

¹⁶ NER Clause 3.14.6(j)

¹⁷ NER Clause 3.14.6(k)

their functions under this clause [3.14.6 of the NER] in respect of the 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.”¹⁸

The Commission will exercise its discretion in deciding whether to recover processing and administrative costs from a claimant and will assess any costs to be recovered from a claimant on a case-by-case basis.

The NER also specifies the process to be applied by the Commission in assessing a claim for compensation (clauses 3.14.6(h) to 3.14.6(v) of the NER). More information on this process is available in Appendix A.

To lodge the information to enable a claim for compensation to be assessed, please send it:

electronically to: applications@aemc.gov.au

Or in hardcopy to:

Australian Energy Market Commission
AEMC Applications
PO Box
A2449
Sydney South NSW 1235.

Applications sent via e-mail/mail should reference the following:
Company/Organisation name and “Claim for compensation under clause 3.14.6 of the NER”.

¹⁸ Clause 3.14.6(v) of the NER.

4 Information requirements

This section outlines information that is to be provided as part of the process of assessing a claim for compensation following the application of an administered price cap or administered floor price. This includes information from the claimant and AEMO to the Commission and information from the Commission to AEMO.

4.1 Information to be provided from the claimant and AEMO to the Commission

4.1.1 From the claimant

1. Identify the category or categories of registered participant for which it is making a claim for compensation and the price limit event giving rise to the claim for compensation.
2. Provide the total amount of the claim for compensation being sought. The amount of the claim is to be calculated in accordance with the methodology outlined in section 5 of these Compensation Guidelines.
3. Define the time period(s) for which the claim for compensation relates and demonstrate that the requirements for a claim are met in those time period(s). The time period may differ depending on the type of claim:
 - (a) For direct cost claims, the time period is the eligibility period (trading day or part thereof) over which the claimant is claiming a net loss;¹⁹
 - (b) For opportunity cost claims for losses that occurred during the administered price period, the time period is the eligibility period (trading day or part thereof) over which the claimant is claiming a net loss;²⁰ and
 - (c) For opportunity cost claims for losses that occurred after the administered price period (later period of time), the claimant is to define the relevant period of time over which it is claiming opportunity costs.
4. Provide a narrative of the circumstances that resulted in the identified costs being incurred during the period of time in which a claim for compensation is being made.
5. If a claim for compensation includes direct costs, provide an itemised quantitative breakdown of the direct costs that are being claimed for, in relation

¹⁹ If a claimant incurred a net loss in multiple eligibility periods during one administered price period, it should submit a single claim for compensation and demonstrate how it made a net loss in each eligibility period (ie trading day).

²⁰ Ibid.

to the categories of direct costs that are outlined in section 6 of these Compensation Guidelines.

6. If a claim for compensation includes opportunity costs, identify the chosen method of valuing opportunity costs in accordance with the approach outlined in section 7 of these Compensation Guidelines. Provide an itemised quantitative breakdown of the opportunity costs that are being claimed for.
7. If a claimant is making claims for compensation in multiple regions, relating to the same eligibility period, it should explain the net losses that were incurred in each region.
8. Provide details of any other compensation claim that the claimant has been paid, that it has made or that it is considering making under any other clauses of the Rules (i.e. clause 3.15.7 of the NER as a directed participant), during the time periods for which this claim for compensation relates.

4.1.2 From AEMO

1. Verify the facts identified in the claimant's narrative, for the period of time specified by the claimant. This could include confirming whether the events being cited by the claimant are coincident with market prices for energy and/or frequency control ancillary services affected by the application of the administered price cap or administered floor price (as the case may be).
2. Provide details of the spot market revenue from the energy market and/or frequency control ancillary services market the claimant has received, or will receive, in respect of the period of time over which the claim for compensation is being made.
3. Provide details of the metered energy data requested by the AEMC for the purposes of calculating the spot market revenue referred to above.
4. Provide other information requested by the AEMC relating to the assessment of a claim.
5. Provide details of any directions given to the claimant during the time periods for which the claim for compensation relates, and any compensation paid, to be paid, or under consideration to be paid as part of the directions compensation process.

4.2 Information to be provided to AEMO from the Commission

If compensation is determined to be payable, the Commission will advise AEMO of the total amount of compensation payable for each relevant eligibility period(s), exclusive of GST.²¹ AEMO will then recover the cost of compensation from market customers

²¹ NER Clause 3.15.10(a)

who consumed energy in the relevant eligibility period(s) in the region in which the administered price period applied.²²

²² NER Clause 3.15.10(b) and (c).

5 Methodology to calculate compensation

This section sets out the framework for calculating the total amount of compensation to be claimed for all types of claims.

In most cases it is likely that the AEMC would apply this approach to calculating a claim for compensation. However, the AEMC is not bound to follow these Compensation Guidelines, and there may be circumstances in which there are compelling reasons not to do so.

5.1 Basic calculation

For any type of claim,²³ the total level of compensation, Total Claimable Amount (TCA), is to be based on the following calculation:

$$TCA = \sum_t (DCt + OCt + OTHt - REVt)$$

Where:

TCA = Total Claimable Amount.

DCt = Direct Costs incurred in the eligibility period(s).

OCt = Opportunity costs incurred over the relevant period of time.

REVt = Actual or potential revenue.

OTHt = Any other adjustments to the amount of compensation payable to be taken into consideration by the Commission.

t = the relevant period of time for which a claim is being made.²⁴

The components used in this basic calculation are to be based on aggregated costs and revenues. For claims involving opportunity costs, which include public consultation, this may allow stakeholders to comment on these aggregated costs and revenues (if they are not subject to a claim of confidentiality).

5.2 Calculation of direct costs

If the claim includes direct costs, the claimant should refer to section 6 for the categories of direct costs relevant to their claim.

²³ That is, a claim for direct and/or opportunity costs relating to the application of a price limit event.

²⁴ The claimant is to define the time period(s) for which it is making a claim for compensation. The relevant time period may vary depending on the type of claim, as outlined in section 4.1.1. The AEMC would assess whether the claimant has demonstrated the requirements for a claim in the relevant time period(s).

5.3 Calculation of opportunity costs

If the claim includes opportunity costs, the claimant should refer to section 7 for the types of opportunity costs relevant to their claim.

5.4 Calculation of actual or potential revenue

Where a claim involves direct costs incurred during the application of an administered price period, the calculation of revenue would be based on actual spot market payments between AEMO and the claimant for the entire eligibility period(s).

Where a claim involves opportunity costs, the claimant would need to calculate the potential revenue using a methodology outlined in section 7.2 of these guidelines.

5.5 Other adjustments

5.5.1 Financing costs

In determining the total level of compensation, it may be appropriate for the Commission to recognise reasonable financing costs in respect of the passage of time between the event occurring to which the compensation claim relates and any compensation being awarded. In this context, it is also appropriate to have regard to the timing of relevant revenues had the compensation events not occurred.

In determining such costs, the Commission would also take into account any unreasonable delays from the claimant in providing the necessary information to commence assessment of the claim for compensation, or responding to requests for clarification or additional information from the panel or Commission.

The Commission will assess any financing costs on a case-by-case basis.

5.5.2 Other sources of compensation

In determining the amount of compensation payable, the Commission may take into account the value of any other sources of compensation paid, to be paid, or under consideration to be paid, to the claimant where that compensation arises out of the same events and covers the same costs and opportunities foregone, if applicable, that are the subject of this compensation claim.

6 Direct costs

The section sets out the types of direct costs for which a claimant may make a claim for compensation.

If a claimant makes a claim for compensation which includes direct costs, it must specify which type(s) of direct costs are relevant to its claim. The AEMC would then assess whether compensation is applicable.

6.1 Fuel costs

Fuel costs incurred during the relevant eligibility period(s). Higher than normal fuel costs may also be included, with supporting reasoning to explain why they were incurred, such as:

- the provision of fuel for generation that may not be covered by the normal coal/gas supply arrangements in place;
- fuel costs incurred if the generator is started up to support (abnormally high) demand during an administered price period; and
- additional fuel costs driven by loading of generation plant being significantly different from the optimal level (which corresponds to the lowest heat rate) during the relevant eligibility period(s).

6.2 Operation and maintenance

Operation and maintenance expenses directly attributable to the pattern of operation during the relevant eligibility period(s), including charges for:

- consumables such as water and chemicals; and
- predictable expenses not yet incurred such as the advancement of future maintenance requirements.

6.3 Wear and tear

General wear and tear directly attributable to the pattern of operation during the relevant trading intervals. Higher than normal wear and tear that may be attributed to specific circumstances related to the generator's operation during the relevant eligibility period(s), with supporting reasoning, including (but not limited to):

- cycling of baseload thermal plants to rapidly start-up or shut-down units;
- sustained on-load cycling or high frequency MW changes in response to automatic generation control (AGC) during an administered price period, which can cause damage to equipment;

- ramping a unit beyond its normal operating mode or temporarily overloading a unit beyond its Maximum Continuous Rating (MCR), with potential consequences of:
 - additional maintenance and overhaul capital expenditures;
 - increased likelihood of forced outages (after an administered price period) and associated lost revenue;
 - long term efficiency losses, i.e. heat rate increases that cannot be reversed; and
 - reduced technical life.

6.4 Exclusions

The following cost categories are not permissible to include in the calculation of the Total Claimable Amount, unless the claimant can demonstrate a compelling case based on extraordinary circumstances:

- repair costs in the event of physical plant/equipment failure; and
- all other direct costs that cannot be attributed to the operation of the unit during the price limit event, including start-up costs outside the price limit event.

7 Opportunity costs

This section sets out the definition of opportunity cost, the criteria that the AEMC may consider in assessing a compensation claim for opportunity costs and the methods of valuing opportunity costs.

In most cases it is likely that the AEMC would apply this approach in relation to opportunity costs. However, the AEMC is not bound to follow these Compensation Guidelines, and there may be circumstances in which there are compelling reasons not to do so.

7.1 Definition of opportunity cost

For the purposes of these Compensation Guidelines, the definition of opportunity cost is as stated in the box below:

Definition of opportunity cost

Opportunity cost is the value of the best alternative opportunity for eligible participants during the application of a price limit event or at a later point in time. The opportunity cost is the foreclosure of this alternative opportunity to use scarce capacity or resources more profitably at the same point in time or at a later point in time.

7.2 Valuing opportunity costs

In order to make a claim for opportunity costs, the claimant needs to:

1. demonstrate that its plant has scarce capacity or resources as a result of a relevant limitation(s), as outlined in section 7.2.1 below; and
2. calculate the value of the more profitable alternative opportunity using the principles for selecting a method of valuing opportunity costs, as outlined in section 7.2.2 below.

7.2.1 Criteria for assessing whether opportunity costs can be claimed

As described above, opportunity costs only arise where capacity or resources are scarce. In order to demonstrate scarcity to justify a claim for opportunity costs, the claimant will need to demonstrate that its plant has technical or commercial limitations:

1. **Technical limitations** may relate to physical limitations on an eligible participant's available capacity or resources, that restricts its output during a price limit event (same period of time) or at a later period of time. The capacity that is available to be provided to a particular market, instead of another market,

may be limited at a point in time.²⁵The replenishment of inputs, such as water or gas, may limit output over a particular period of time;²⁶ and

2. **Commercial limitations** such as penalties on the available capacity or resources. These may include commercial incentives or disincentives on using capacity or resources during a price limit event (same period of time) or at a later period of time.

In assessing these technical and commercial limitations, the AEMC may consider factors such as:

- (a) the operational capacity of the plant under the conditions at the time, including the time required for the unit start-up, ramp rates and maximum available capacity. Such operational limits may prevent a generator from increasing its output above a certain limit or decreasing its output below certain limits;
- (b) the available resources of the plant under the conditions at the time, including starting resource level, potential rate of resource inflows and minimum resource storage limits;
- (c) commercial incentives or disincentives, including resource input costs and price differences between markets;
- (d) the prevailing conditions in the NEM during the relevant period of time, including the application or potential application of network constraints;
- (e) the actual dispatch of plant into the NEM during the application of the price limit event;
- (f) available alternative resources, which may be determined by the demand-supply balance in the market. Opportunity costs may reflect the value of deploying these alternatives; and
- (g) uncertain events that may affect supply, for instance:
 - (i) the breakdown of a gas processing plant or gas pipeline; and
 - (ii) outages of other generators or transmission interconnectors.

²⁵ For instance, if a generator is procured to provide services to an ancillary services market during an administered price period, this may limit the amount of its capacity that can be supplied to the energy market over the same period of time.

²⁶ The physical ability to defer actions, such as using the same resources at a later point in time, may be an important factor in determining whether a claimant incurs an opportunity cost relating to a later point in time. A run-of-the-river hydro station, for instance, may not have any ability to defer generation and consequently may not be eligible to claim opportunity costs for a later period of time

Example of capacity limitation on generator supplying energy during an administered price period (same period of time)

If a generator is procured in the ancillary service market when the ancillary service price is capped and the energy price is uncapped, this generator may have a commercial incentive to allocate its capacity to the energy market, instead of the ancillary service market. This relates to the situation in which an administered price cap is triggered in an ancillary service market and therefore applies in all ancillary service markets in the region, but not in the energy market.

In order to make a claim for compensation, the claimant would need to:

1. Demonstrate that it had a physical limitation on its available capacity that restricted its output to the energy market during a price limit event; and
2. Calculate the value of the opportunity cost had the generator chosen the more profitable alternative opportunity, as per the approach in section 7.2.2.

An eligible participant does not have any opportunity costs if it does not have any technical or commercial limitations that might apply during an administered price period.

7.2.2 Principles for selecting a method for valuation of opportunity costs

If an eligible participant has technical or commercial limitations which suggest a valid case for opportunity cost, it should outline how it values the opportunity cost. The choice of method for valuing opportunity cost should follow the hierarchy of principles, as outlined below:

1. The preferred method is to use a market based valuation of an alternative that over the relevant period of time would justify an opportunity cost. This valuation approach would be based on a range of information, including the available capacity and resources of the claimant's facility over this period of time and its cost structure. The claimant should develop a counterfactual based on this alternative. The counterfactual should be based on what would have occurred in the market had the claimant's behaviour changed and it had chosen the more profitable alternative opportunity;²⁷
2. If an appropriate market based valuation is not available then the claimant should consider using market values over a similar past period; and
3. If it is not possible to use either of the above valuation methods, the claimant should develop its own methodology to value the opportunity costs. The AEMC would consider whether this methodology was appropriate for the specific nature of the claim.

²⁷ For example, a counterfactual could account for the potential impact on prices that occurred in the relevant market, if the claimant had supplied the volume of output that it claims it could have supplied to that market, over the particular period of time.

Claimants will need to determine the most suitable method for calculating their opportunity costs. It may be necessary to use a number of valuation methods to arrive at a conclusion of appropriate opportunity costs.

The burden of proof regarding the value of the opportunity costs incurred, and the provision of information, analysis and/or models to support the claim, rests with the claimant.

8 Compensation for scheduled network service providers, scheduled loads and ancillary service providers

The other sections of these Compensation Guidelines outline a general approach for claims for compensation following the application of a price limit event by all types of eligible participants. This section provides additional information on claims for compensation for specific types of eligible participants - namely scheduled network service providers, scheduled loads and ancillary service providers.

8.1 Scheduled network service providers

A scheduled network service provider is eligible to claim compensation due to the application of an administered price cap in a region into which it is transporting power. In this situation, the price in the region from which the power is flowing would not be scaled or adjusted to the level of the administered price cap.²⁸ This could result in the scheduled network service provider incurring a net loss, for example if it was transporting power from a region with a higher uncapped spot price to a region with a price that was capped by the administered price cap.

Scheduled network service providers are market network service providers.²⁹ Regulated network service providers are not market network service providers and are not eligible to make a claim for compensation following the application of an administered price period.

8.2 Scheduled loads

The circumstances in which compensation is payable to a market participant in respect of scheduled load differs to that for scheduled generators, as it relates to the application of an administered floor price.³⁰

Figure 8.1 shows the potential impact of an administered floor price on consumption by a scheduled load.

Figure 8.1 show that in normal market operating conditions, a scheduled load would be consuming electricity at point A, and receiving the spot price for each MWh of energy consumed. If the spot price in the energy market was minus \$300 per MWh (i.e. the same price as the administered floor price), the scheduled load would likely be consuming electricity at point C. However, if an administered floor price was applied

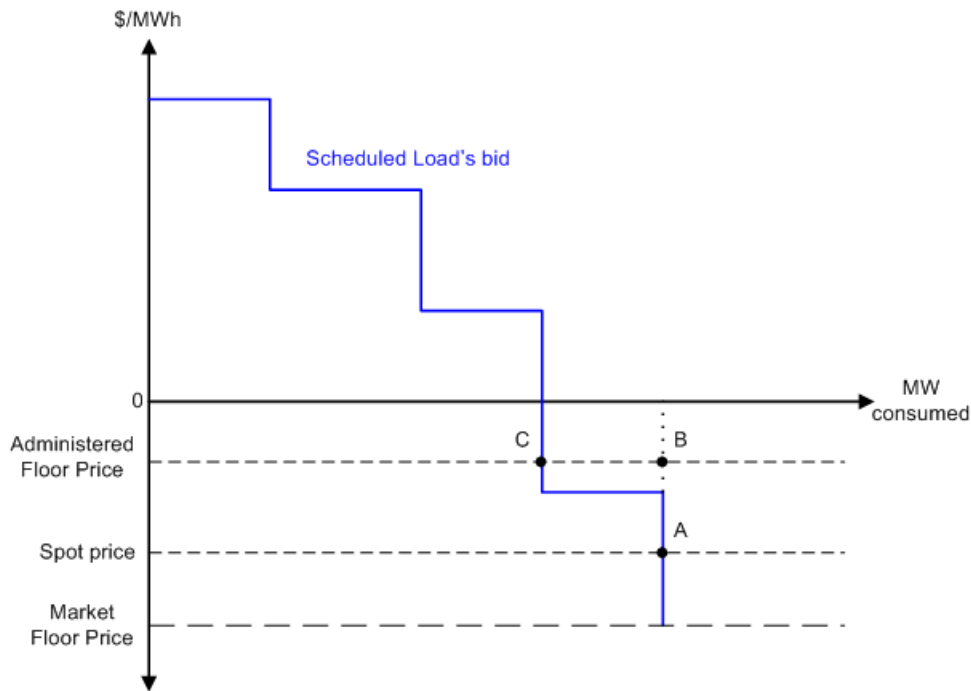
²⁸ This is different from the situation that relates to regions connected by regulated network service providers. If during an administered price period, the dispatch price at any regional reference node is set to the administered price cap then dispatch prices at all other regional reference nodes connected by a regulated interconnector or regulated interconnectors that have an energy flow towards that regional reference node, must not exceed the administered price cap divided by the average loss factor that applies for energy flow in that direction. NER Clause 3.14.2(e)(5)

²⁹ NER Clause 2.5.3(a)

³⁰ Clause 3.14.6 of the NER.

the scheduled load would be consuming electricity at point B (i.e. consuming more electricity that it would have done if the spot price was minus \$300 per MWh). This difference between points B and C would make the relevant scheduled load eligible to make a claim for compensation.

Figure 8.1 Potential impact of an administered floor price on consumption by a scheduled load



Based on the example shown in Figure 8.1, the scheduled load may be able to make a claim for compensation for direct costs, incurred as a consequence of the application of an administered floor price. The direct costs relate to costs incurred at the higher level of consumption (i.e. point B in Figure 8.1) that exceed any payments received by the scheduled load at that level of consumption.

8.3 Ancillary service providers

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

- 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 a 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 central dispatch process, including during a price limit event.³¹

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 connections agreements with Transmission Network Service Providers.³²

FCAS providers are eligible to make a claim for compensation based on direct and/or opportunity costs.

31 NER, Clause 3.11.1(b)

32 NER Clause 3.11.1(c)

Abbreviations

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AGC	Automatic Generation Control
APC	Administered Price Cap
AFP	Administered Floor Price
Commission	See AEMC
CPT	Cumulative Price Threshold
FCAS	Frequency Control Ancillary Services
MPC	Market Price Cap
MFP	Market Floor Price
MW	Megawatt
MWh	Megawatt hours
NEL	National Electricity Law
NEM	National Electricity Market
NER	National Electricity Rules
NSCAS	Network Support and Control Ancillary Services
SRAS	System Restart Ancillary Services

A Compensation assessment process

As shown in Figure A.1 below, the compensation assessment process differs depending on whether the claim is for:

- Direct cost only; or
- Other than direct cost only (i.e. includes opportunity costs).

The AEMC is responsible for assessing claims for compensation following the application of an administered price cap and administered floor price. This includes publishing notices, including on initial receipt of a claim and the formal commencement of the assessment of a claim.

Figure A.1 Compensation assessment process for Direct cost only claims and Other than direct cost only claims

