AUSTRALIAN ENERGY MARKET COMMISSION

REVIEW

Draft report

Review into electricity compensation frameworks

15 August 2024

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About the AEMC

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

Acknowledgement of Country

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

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Summary

1 The Australian Energy Market Commission (AEMC or Commission) has self-initiated a review into the compensation frameworks in the national electricity market (NEM) (the Review).

2 Using the insights gained by market participants and market bodies following the events of June 2022, the Commission has made 14 draft recommendations regarding the electricity compensation frameworks. Together with the recent increase of the administered price cap (APC), these draft recommendations seek to:

- provide a predictable and administratively simply compensation regime
- ensure that the frameworks provide the correct incentives to support reliability and security during times of system and market stress.

3 This draft report sets out the Commission's draft recommendations to improve the efficiency and effectiveness of the frameworks for directions, administered pricing and market suspension compensation. For each of the frameworks, the Commission has assessed the objectives, methodologies, governance and administrative structures and considered whether:

- there are opportunities to better align the frameworks
- further clarity is required about how specific types of claims apply to different technologies.

4 In the Commission's view each framework can be most effective if its implementation is aligned with its objectives. For the administered pricing and market suspension compensation frameworks, this means setting appropriate incentives to encourage participation in the market rather than relying on interventions, such as directions, to manage dispatch during periods of market stress.

5 The Review's focus on governance includes ensuring the roles and responsibilities of the market bodies support the objectives of the compensation framework.

6 Administrative changes include clarifying eligibility periods, treatment of overlapping compensation claims, cost recovery provisions, and time limits for applying for compensation.

7 The Commission has also considered the proposed changes to the directions compensation framework that were first identified in the *Improving security frameworks for the energy transition* (ISF) rule change.[1]

The Commission has made 14 draft recommendations to improve the compensation frameworks

8 The Commission has made 14 draft recommendations based on the experiences during the events of June 2022, as well as stakeholder feedback to the consultation paper.

9 The Commission's draft recommendations reflect the broader assessment framework for this review, which encompasses:

- strengthening incentives for participants to encourage efficient behaviour
- where practical, reducing unnecessary complexity and inconsistency between the frameworks
- streamlining administration of the frameworks to create greater certainty regarding the processes involved.

1 AEMC, *Improving security frameworks for the energy transition* rule change, 2024.

There should be an objective for each compensation framework

10 Currently, the National Electricity Rules (NER) set out objectives for the administered pricing and market suspension compensation frameworks. The Commission is making a draft recommendation to include a formal objective for directions compensation in the NER. Adding an objective will clarify how participants should be compensated when directed to supply.

11 Some stakeholders were of the view that there should be a single objective across all three frameworks. The Commission agrees that there may be some administrative simplicity with this approach. However, we consider that it is important to recognise the difference between being directed to supply and encouraged to supply during times of market stress which warrant different compensation objectives.

There should be a consistent approach for lost value across the compensation frameworks

12 The Commission's draft recommendation is to allow for participants to claim for opportunity costs for directions, administered pricing and market suspension compensation. In the Commission's view this will allow all three frameworks to meet their objectives and allow generators to recover their costs of supplying during times of market stress and recognise the value foregone by doing so. If implemented, the draft recommendations will:

- Alter the type of claims for directions compensation from lost revenue to opportunity cost. Opportunity cost is a measure of the lost value of supplying energy at the same time or in some future period rather than pursuing an alternative opportunity when a generator faces a resource constraint.
- Include consideration of opportunity costs alongside direct cost claims in the market suspension compensation framework.

There should be alignment of upfront payment for costs incurred

13 The Commission is making a draft recommendation that upfront compensation for directions should be based on the volume-weighted average price (VWAP) received by the relevant technology type in the relevant region over the previous 12 months. This would replace the current approach of using 90th percentile price for each region over the previous 12 months. The Commission considers that the new approach provides closer alignment between the costs likely to be incurred and the revenue received, providing more certainty and predictability for participants.

14 The Commission also considers that the upfront compensation payment for market suspension should be the greater of the market suspension pricing schedule (MSPS) and the upfront directions payment (calculated using the VWAP) to simplify the compensation process. This change would remove the benchmarking approach currently used for upfront market suspension compensation.

AEMO should receive all claims with the independent expert function expanded to include administered pricing compensation and all opportunity cost claims

15 Following the events of June 2022, stakeholders have highlighted that the different governance approaches across the three frameworks created confusion for participants seeking compensation payments. To address this, the Commission is making draft recommendations to:

- establish the Australian Energy Market Operator (AEMO) as a single point for participants to lodge all claims for compensation

- have the independent expert assess all claims for administered pricing compensation including direct costs
- have the independent expert assess all claims for opportunity costs.

  The current independent expert processes will remain for directions and market suspension compensation claims. The Commission will retain responsibility for developing guidelines on opportunity cost claims.

Further clarity is provided on eligibility, application and timeframes for claim processes

16 The Commission notes that, alongside the above issues, the June 2022 events also highlighted a range of administrative issues that were creating complexity and confusion for market participants.

17 To address these, the Commission is making draft changes to the way compensation payments are calculated for administered pricing compensation, and proposes introducing a timeframe for administered pricing compensation claims.

The draft changes contribute to the energy objectives

18 The Commission considers that the compensation frameworks are an important part of ensuring system security and reliability during periods of market stress. To achieve these outcomes, the frameworks need to:

- be predictable and administratively simple
- provide the correct incentives to participants to support reliability and security during times of system and market stress.

19 The Commission's assessment framework for this review reflects these principles, and sets out how the draft recommendations align with the national electricity objectives (NEO):

- **Principles of market efficiency:** Compensation frameworks need to provide the correct incentives to support reliability and security during times of system and market stress. Particularly for the administered pricing and market suspension compensation frameworks, participants should be encouraged to continue to participate in the market rather than rely on interventions by AEMO. The draft recommendations proposed in this review aim to strengthen the incentives for participants to continue to supply services during periods of market stress.
- **Implementation considerations:** Compensation frameworks should be administratively simple in order to achieve their objectives. The draft recommendations aim to address areas of administrative complexity, including governance of frameworks and improved structure around the assessment process.
- **Principles of good regulatory practice:** Predictability of the compensation frameworks is an important factor for stakeholders when operating during periods of system or market stress. The draft recommendations aim to reduce inconsistency across the frameworks so that stakeholders can more easily understand the functioning of the compensation processes. This includes addressing issues regarding eligibility for compensation and the treatment of overlapping compensation claims, as well as alignment of payment mechanisms for upfront compensation.

The events of June 2022, stakeholder feedback and the Commission's experience with assessing claims have shaped the draft recommendations

20 As noted above, this Review has arisen following the disruptive market events of June 2022 and

the application of different compensation frameworks.

21 In the consultation paper the Commission sought stakeholder feedback on their experiences during these events, as well as views on the compensation frameworks more broadly.

22 Stakeholders were generally of the view that the events of June 2022 were driven by a number of compounding factors. Participants also considered that uncertainty about the compensation frameworks also reduced the incentive to supply during the event. Further, stakeholders generally considered that while the objectives of the frameworks were appropriate the majority of issues arose because of inconsistencies and lack of clarity of methodology and administration. In the view of most stakeholders, these issues meant that the objectives of the compensation frameworks were not achieved.

23 Stakeholders also commented one of the other main drivers of poor market outcomes during the events of June 2022 was the $300/MWh APC. The Commission agrees that this led to over reliance on the compensation frameworks and impeded normal market function during the administered price period. The Commission has since made a rule to set the APC at $600/MWh until 30 June 2028. This means that the APC is now at a sufficient level to encourage continued participation during times of extended high input costs, reducing the need for AEMO intervention and the risk of outages for consumers. The Commission has taken this change into account when developing its draft recommendations.

We are seeking feedback on the draft recommendations

24 The Commission encourages stakeholders to provide feedback on the Review's analysis and recommendations. Submissions are due by 26 September 2024. The Commission expects to release its final report in December 2024.

25 Changes recommended may require changes to the NER. The Commission's draft recommendations are presented below in Box 1:

Box 1: The Commission's draft recommendations

Objectives

Draft recommendation 1: Each compensation framework should have an objective, and the objective of the directions compensation framework should be to enable generators to be compensated for the costs associated with complying with a direction. The objective of the administered pricing and market suspension compensation frameworks should remain the same.

Methodology

Draft recommendation 2: Participants should be eligible to claim opportunity costs in each of the directions, administered pricing and market suspension compensation frameworks. This is a change from the current arrangements, where participants can claim for loss of revenue under the directions compensation framework, and direct costs only under the market suspension compensation framework.

Draft recommendation 3: The upfront payment for directions compensation should be changed to reflect the volume-weighted average price received by assets of the same technology type in the same region for the previous 12 months. This is a change from the current payment of the 90th percentile price for the previous 12 months in each region.

Draft recommendation 4: The upfront payment for market suspension compensation should be the greater of the MSPS and the upfront directions payment (calculated as the VWAP). This removes the current benchmarking approach used for upfront compensation in the market suspension compensation framework.

Governance

Draft recommendation 5: All compensation claims should be lodged with AEMO. This is a change from the current arrangements where claims for administered pricing compensation are submitted to the AEMC and AEMO.

Draft recommendation 6: AEMO, using the independent expert function, should assess claims for administered pricing compensation in addition to the directions and market suspension compensation frameworks. All claims for opportunity costs should be assessed by the independent expert.

Draft recommendation 7: The Commission should retain responsibility for the guidelines for assessing opportunity cost claims. These guidelines will apply across all frameworks.

Administrative

Draft recommendation 8: Administered pricing compensation should be assessed by trading interval within an eligibility period rather than by net revenue in an eligibility period.

Draft recommendation 9: Administered pricing compensation should be assessed on an individual unit level rather than across all units that make up a claim for compensation.

Draft recommendation 10: There should be the same time limits on all compensation claims including claims for administered pricing compensation. The time limits should be aligned with AEMO's intervention settlement timetable, which currently sets out the timeframes for directions and market suspension compensation processes.

Draft recommendation 11: The same types of direct costs should apply to all compensation frameworks and be identified in a single list.

Draft recommendation 12: Cost recovery for administered pricing compensation should be determined on a trading interval basis, with costs recovered from the region where the price is set by the APC. This is different to the current approach, where cost recovery is based on the cost recovery region for each eligibility period.

Draft recommendation 13: Compensation for capacity directions should be recovered from consumers. This is different from the current approach where they are classified as directions for services other than energy or ancillary services and recovered from both generators and consumers.

Draft recommendation 14: The same standards of supporting evidence should be required across all frameworks.

How to make a submission

We encourage you to make a submission

Stakeholders can help shape the solution by participating in the review. Engaging with stakeholders helps us understand the potential impacts of our recommendations and contributes to well-informed, high quality reforms.

How to make a written submission

Due date: Written submissions responding to this draft report must be lodged with Commission by 26 September 2024.

How to make a submission: Go to the Commission's website, www.aemc.gov.au, find the "lodge a submission" function under the "Contact Us" tab, and select the project reference code EPR0095.[2]

Tips for making submissions are available on our website.[3]

Publication: The Commission publishes submissions on its website. However, we will not publish parts of a submission that we agree are confidential or that we consider inappropriate (for example offensive or defamatory content or content that is likely to infringe intellectual property rights).[4]

Further opportunities for engagement

The Commission is happy to engage further with stakeholders on the issues raised in this draft report.

For more information, you can contact us

Please contact the project leader with questions or feedback at any stage.

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2 If you are not able to lodge a submission online, please contact us and we will provide instructions for alternative methods to lodge the submission

3 See: https://www.aemc.gov.au/our-work/changing-energy-rules-unique-process/making-rule-change-request/submission-tips

4 Further information is available here: https://www.aemc.gov.au/contact-us/lodge-submission

Contents

Tables

Figures

1 The Commission has made draft recommendations

This draft report sets out the Australian Energy Market Commission's (AEMC or Commission) draft recommendations to improve the effectiveness and suitability of the objectives, methodologies, governance, and administrative structures for the directions, administered pricing and market suspension compensation frameworks.

We are seeking feedback on these draft recommendations.

1.1 Our recommendations are shaped by stakeholder feedback and the events of June 2022

The catalyst for this review was the events of June 2022, where the directions, administered pricing and market suspension compensation frameworks were all used in overlapping periods. During these events, several factors led to significant market intervention by the Australian Energy Market Operator (AEMO) to maintain system reliability and security. These interventions included a large number of directions, followed by the spot market being suspended between 15 June 2022 and 24 June 2022.[5]

The Commission considers that the risks to reliability and system security experienced during these events were not in the long-term interest of consumers.

Following the June 2022 events, AEMO identified a range of factors that led to the market suspension. In addition to those factors, the Commission considers that the level of the administered price cap (APC) was a critical factor that contributed to poor market outcomes.

The APC is a tool to stabilise the market through periods of significant and extended volatility. It works by capping spot prices paid by market participants, and should reduce risk and financial distress to market participants by limiting their spot exposure. At the same time, it should provide sufficient spot revenues for generators to cover their short-term costs and incentivise them to supply energy while the APC is in operation.

The Commission has made two key changes to the APC following the events of June 2022. In November 2022, the Commission made the *Amending the administered price cap* rule change to increase the APC to $600/MWh.[6] This was a temporary change to the APC between December 2022 and 30 June 2025. The Commission considered that this change was in the long-term interests of consumers because it:

- improves reliability and security outcomes by encouraging generators to continue operating through normal market dispatch, rather than relying on directions from AEMO to manage dispatch
- reduces unhedgeable compensation costs paid by consumers.

The Commission considered that the benefits of increasing the APC in this rule change outweighed the costs, because consumers, retailers and other market participants benefit from improved security and reliability outcomes. The Commission noted that the costs of procuring energy in the market were not expected to increase, as at a given level of hedging, consumers are likely to be better off with a higher APC and lower compensation costs. This is because any costs that are captured by existing contracting arrangements are subject to the pre-agreed prices set out in the contracts, rather than lump payments for compensation.

5 AEMO, *NEM Market Suspension incident report*, p. 4.

6 AEMC, *Amending the administered price cap*, Final determination.

The Commission maintained the APC at $600/MWh in the *Amendment of the market price cap, cumulative price threshold and administered price cap* rule change.[7] This rule change set the APC at $600/MWh for the period from 1 July 2025 to 30 June 2028.

The recent administered pricing period (APP) in NSW in May 2024 provides some evidence that the $600/MWh APC has better supported the continuation of supply during market stress events. During this event, NSW breached the cumulative price threshold on 8 May 2024. However initial analysis suggests that normal market dynamics continued during the following seven days.[8] Following this, the seven-day cumulative price returned below the threshold, and the market returned to normal functioning.

The Commission considers that the increase to the APC is likely to lead to fewer claims for compensation in the future. Further, recent changes made by the Commission in the *Improving security frameworks for the energy transition* (ISF) rule change also aim to reduce the reliance on directions for the management of system security issues.[9]

1.2 This review addresses the remaining issues with the compensation frameworks

The Commission has identified that even with the increase to the APC, there are other issues with the compensation frameworks that need to be addressed. Stakeholders considered that while the objectives of the compensation frameworks are generally appropriate, there are issues with inconsistency and lack of clarity regarding methodology and administration. These issues are the subject of this review.

The Commission has made 14 draft recommendations to address the outstanding concerns with the compensation frameworks The proposed changes seek to ensure that the frameworks achieve outcomes in the long-term interests of consumers by improving the:

- incentives faced by participants during periods of market stress
- predictability and administrative simplicity of the compensation frameworks to aid stakeholder interactions.

In developing its recommendations, the Commission has taken into account:

- stakeholder feedback to the consultation paper, as well as the second directions paper for the ISF rule change
- the events of June 2022 and the subsequent compensation assessment processes, including our experience assessing compensation claims
- changes that have been made following the events of June 2022, particularly increasing the APC to $600/MWh.

While there are likely to be fewer claims in the future, the Commission considers that the draft recommendations will make the existing compensation frameworks more effective at achieving their objectives.

A visual summary of the Commission's proposed changes are presented in the following tables below. Figure 1.1 outlines the current compensation frameworks and Figure 1.2 sets out the frameworks if the draft recommendations were implemented. More detail is provided in the following chapters.

7 AEMC, *Amendment of the market price cap, cumulative price threshold and administered price cap*, Final determination.

8 AER, *Electricity prices above $5,000/MWh - April to June 2024*.

9 AEMC, *Improving security frameworks for the energy transition*, Final determination.

Figure 1.1: Overview of compensation frameworks prior to the review

	Directions	Administered pricing	Market suspension
What is the purpose or objective of the framework?	No objective stated	To maintain the incentive to supply services during price limit events.	To maintain the incentive to supply services during market suspension periods.
Where is the process set out in the Rules?	Clauses 3.15.7, A and B	Clause 3.14.6	Clauses 3.14.5, A and B
Who is responsible for administering the framework?	AEMO	AEMC	AEMO
Who is responsible for claim assessment?	• Direct cost claims: AEMO and the independent expert • Loss of revenue claims: Independent expert	AEMC	• Direct cost claims: AEMO and the independent expert • Loss of revenue claims: Independent expert
Who can be compensated and for what?	• Participants who are directed to provide specific services • Participants are compensated for all directed units.	• Participants who provide services during price limit events. • Participants are compensated for all units included in a claim.	• Participants who provide services during a market suspension period. • Participants are compensated for all units included in a claim.
What is the mechanism for calculation and payment?	• Initially, claimants receive the 90th percentile price over the preceding 12 months. • Participants can claim additional direct costs and loss of revenue. • Compensation values are calculated as the costs incurred in each relevant intervention trading interval.	• Participants receive payment of the spot price capped at the APC (now $600/MWh). • Participants can be compensated for direct and opportunity costs. • Compensation value calculated as the net loss in each relevant eligibility period (which is the period from the first price limit event until the end of the trading day).	• Claimants receive a formulaic estimate of direct costs. • Claimants can lodge claims for additional compensation for direct costs only. • Compensation value is calculated as costs incurred in a market suspension pricing schedule period, which is a trading interval where the price is set by the market suspension pricing schedule.
What is the cost recovery mechanism?	• Costs are recovered from market customers proportional to adjusted consumed energy. • Directions for services other than energy and market ancillary services are recovered from both generators and customers.	• Costs are recovered from market customers proportional to adjusted consumed energy. • Recovery is based on the region where the APC was in place in an eligibility period, and proportional to adjusted consumed energy.	• Costs are recovered from market customers proportional to adjusted consumed energy.
Timelines for claim assessment.	Governed by the intervention settlement timetable.	Set out in the NER, but with no requirements for participants to submit supporting information for claims.	Governed by the intervention settlement timetable.

Figure 1.2: Overview of compensation frameworks with draft recommendations

	Directions	Administered pricing	Market suspension
What is the purpose or objective of the framework?	For participants to be compensated for the costs associated with complying with a direction.	To maintain the incentive to supply services during price limit events.	To maintain the incentive to supply services during market suspension periods.
Who is responsible for administering the framework?	AEMO	AEMO	AEMO
Who is responsible for claim assessment?	• Direct cost claims: AEMO and the independent expert • Opportunity cost claims: independent expert	• Direct cost claims: AEMO and the independent expert • Opportunity cost claims: independent expert	• Direct cost claims: AEMO and the independent expert • Opportunity cost claims: independent expert
Who can be compensated and for what?	• Participants who are directed to provide specific services, or additional compensable services. • Participants are compensated for all directed units.	• Participants who provide services during price limit events. • Participants are compensated for all units that have made a loss during the relevant trading intervals in an eligibility period.	• Participants who provide services during a market suspension period. • Participants are compensated for all units included in a claim.
What is the mechanism for calculation and payment?	• Initially, claimants receive the volume weighted average price for the relevant technology type over the preceding 12 months, capped at the APC • Participants can claim additional direct costs and opportunity costs. • Compensation values are calculated as the costs incurred in each relevant intervention trading interval.	• Participants receive payment of the spot price capped at the APC • Participants can claim for direct and opportunity costs. • Compensation value calculated as the net loss in each relevant trading interval within an eligibility period (which is the period from the first price limit event until the end of the trading day).	• Initially, claimants receive the greater of market suspension pricing schedule price and volume weighted average price for relevant technology type over the preceding 12 months, capped at the APC • Participants can claim for additional direct costs and opportunity costs. • Compensation value is calculated as costs incurred in a market suspension pricing schedule period, which is a trading interval where the price is set by the market suspension pricing schedule.
What is the cost recovery mechanism?	• Costs are recovered from market customers proportional to adjusted consumed energy. • Directions for services other than energy and market ancillary services are recovered from both generators and customers.	• Costs are recovered from market customers. • Recovery is based on the region where the APC was in place in each trading interval within an eligibility period and proportional to adjusted consumed energy.	• Costs are recovered from market customers proportional to adjusted consumed energy.
Timelines for claim assessment	• Governed by the intervention settlement timetable.	• Governed by the intervention settlement timetable.	• Governed by the intervention settlement timetable.

Key Proposed changes to the framework

2 We are recommending an objective for the directions compensation framework

This chapter outlines the Commission's draft recommendations regarding the objectives of the compensation frameworks.

2.1 Directions compensation should have a formal objective

The Commission's draft position is that the National Electricity Rules (NER) should include a formal objective for directions compensation. The objective should be to allow directed participants to be compensated for the costs associated with complying with a direction.

Directions are intended to be a last-resort mechanism to be used to manage system security and reliability. Therefore, the Commission considers that this is different to the objective of the market suspension and administered pricing which are to ensure the right incentives are in place for generators to continue to maintain supply during times of market stress. The Commission's view is that the objective of the directions compensation framework should reflect the nature of directions rather than having a single objective for all compensation frameworks.

We agree that there may be administrative benefits to aligning the compensation framework objectives. However, this may lead to the intent behind these interventions being conflated so that the NER seeks to incentivise supply through directions, which is not aligned with the intent of this framework.

Draft recommendation 1: Each compensation framework should have an objective, and the objective for directions compensation should be to enable generators to be compensated for the costs associated with complying with a direction. The administered pricing and market suspension frameworks will remain the same.

Do stakeholders agree that it is appropriate to have a separate objective for the directions compensation framework?

Do stakeholders have any issues with the specific wording of the objective?

2.2 The directions framework is distinct from the administered pricing and market suspension frameworks

There is no explicit objective for the directions compensation framework. Implicitly, it is to allow participants to recover the costs associated with complying with a direction.

The current objectives of the other compensation frameworks are:[10]

- **Administered pricing compensation:** To maintain the incentive to supply services during price limit events.
- **Market suspension compensation:** To maintain the incentive to supply during market suspension periods.

Most stakeholders considered that the objectives for administered pricing and market suspension compensation were appropriate.[11]

10 AEMC, *Review into electricity compensation frameworks*, Consultation paper, 2 November 2023, pp 6-7.

11 Submissions to the consultation paper: AEMO, p 9; AGL, p 1; AEC, p 2; Shell, p 2.

2.2.1 Each framework applies to a different type of intervention

The Commission considers that the directions framework is distinct from the administered pricing and market suspension frameworks.

Directions

The directions framework was intended to be a last-resort mechanism to be used if normal market mechanisms have failed, or are not in place.[12] Despite this intent, in recent years directions have been frequently used to manage system security issues, particularly in South Australia.[13] The Commission's recent determination in the ISF rule change has made several changes that aim to remove the need for directions to be used in this way.[14] Before this rule change, specific procurement mechanisms did not exist to cover the range of operational security requirements that were eventuating on the power system.

Following the changes made in the ISF rule change, we expect that the framework introduced under this rule will be the primary mechanism through which system security services are procured. Therefore, the Commission sees directions returning to a mechanism of last resort for managing system security and reliability.

Administered pricing

During an APP, the application of the APC inhibits the normal functioning of the spot market by capping prices at a lower level. However, the spot market continues to be the primary mechanism for procuring services during an APP. The framework is designed so that a participant is indifferent between participating in the market during the APP.

The APC is part of the reliability settings recommended by the Reliability Panel.[15] It is the maximum market price that can be reached in any trading interval during an APP. In recommending the level of the APC, the Reliability Panel makes a trade-off between:

- minimising the risks of financial instability to the market arising from an extended period of supply scarcity and corresponding high prices
- being sufficiently high to incentivise generation to make itself available during an APP.

Market suspension

Similar to the administered pricing framework, the intent of the market suspension framework is to maintain incentives for participants to provide energy, ancillary services and demand response during the suspension. AEMO may declare the spot market to be suspended in a region when either:[16]

- the power system has collapsed to a system black
- AEMO has been directed by a participating jurisdiction to suspend the market
- AEMO determines that it is necessary to suspend the spot market in a region because it has become impossible to operate in accordance with the provisions of the NER.

During a market suspension period, it may not be practicable to for AEMO to determine spot prices in accordance with NER clauses 3.8 and 3.9. If this is the case, AEMO sets spot prices using the Market Suspension Pricing Schedule (MSPS).

12 NEMMCO and NECA, *Power system directions in the National Electricity Market*, Final report, 19 May 2000, p. i.

13 Reliability Panel, *Annual Market Performance Review,* p 70. Found here.

14 AEMC, *Improving security frameworks for the energy transition* rule change, Final determination, 28 March 2024.

15 Reliability Panel, *2022 Reliability standard and settings review*, Final report, 1 September 2022.

16 NER clause 3.14.3 (a).

In its rule change request for the *Participant compensation following market suspension* rule change, AEMO noted that during a market suspension it is preferable for participants to be encouraged to work with AEMO to restore the market to a safe and stable operating condition.[17] AEMO considered that an ongoing need to issue directions during a market suspension would detract from its achievement of this goal.

In its final determination, the Commission noted that the rule was intended to encourage participants to voluntarily provide services during a market suspension period.[18]

2.3 A single objective may not be appropriate for all frameworks

A number of stakeholders raised that there should be a single objective across the three compensation frameworks:[19]

- Shell and the AEC commented that the objective for all frameworks should be to maintain the incentive to supply services during an intervention.
- Alinta suggested that the objective should be to place the participant providing the service to the market in the position as if the market failure had not occurred.

The Commission considers that having a single objective across the three compensation frameworks may have benefits in terms of simplicity and certainty for stakeholders. That being said, our view is that no single objective would effectively distinguish the underlying differences between the frameworks.

In particular, the Commission does not want to incentivise participants to seek directions, either during periods of normal market operation, or periods of market stress such as administered pricing or market suspension. We note that stakeholders consider there is not currently an incentive to be directed.[20] This is in line with the Commission's intentions for the use of directions as a last resort mechanism, particularly given the advent of primary procurement mechanisms for system security services. The introduction of an objective to "incentivise participants to supply services" during a direction will likely go counter to this intent.

We do agree with stakeholders that the objectives of the administered pricing and market suspension compensation frameworks remain appropriate.[21] Given the nature of these interventions, the Commission considers that it is appropriate to aim to incentivise participants to continue to supply services during the event.

2.4 The Commission recommends an objective for directions compensation

The Commission's draft recommendation is to introduce a formal objective for the directions compensation framework. This will provide clarity on the aim of the directions compensation framework, given there is not currently a formal objective.

Our draft position is that the objective of the directions compensation framework should be to allow directed participants to be compensated for the costs associated with complying with a direction.

17 AEMC, *Participant compensation following market suspension*, Rule change request, pp 6-7.

18 AEMC, *Participant compensation following market suspension* rule change, Final determination, 15 November 2018, p. i.

19 Submissions to the consultation paper: AGL, p 1; AEC, p 2; Alinta, p 2; Shell, p 2.

20 Submissions to the consultation paper: AEC, p 2; Shell, p 2.

21 Submissions to the consultation paper: AGL, p 1; AEC, p 2; EnergyAustralia, p 3; Hydro Tasmania, p 1; Shell, p 2.

The Commission considers that the benefits of simplicity from having a single objective should not take primacy over the need for the frameworks to reflect the nature of the interventions. Given directions are intended to be a last-resort mechanism to be used when other market mechanisms have failed or do not exist, it is not relevant to incentivise participants to supply services once directed.

We agree with stakeholders that it is appropriate for the objectives of the administered pricing and market suspension compensation frameworks to be to maintain the incentive to supply services. These objectives reflect the underlying nature of the interventions.

3 We are recommending improvements to compensation methodologies

This chapter outlines the Commission's draft recommendations regarding improvements to the methodologies for the compensation frameworks. The consultation paper and submissions set out a number of areas for consideration:

- inclusion of opportunity costs across the various frameworks
- the methodology for upfront directions compensation payments
- alignment of upfront payment mechanisms across the frameworks
- arrangements for constrained on generators
- requirement for stronger obligations on participants to provide services during periods of market stress.

The Commission's analysis on these issues is set out below.

3.1 Opportunity costs should be considered in all frameworks

The Commission notes that the objectives of the administered pricing compensation framework and the market suspension compensation framework are to maintain the incentive to supply services. We consider that enabling participants to claim opportunity costs is important as part of achieving these objectives. This is because it will ensure that they are kept whole if by supplying through an event, value from an alternative opportunity is lost. This is also relevant for a directed generator that is resource-limited.[22]

Therefore, the Commission's draft position is that compensation for opportunity costs should be allowed for directions, administered pricing and market suspension compensation claims. The benefits of including opportunity costs across all three frameworks include improving:

- the ability of the frameworks to meet their objectives, being either:
    - to enable generators to be compensated for the costs of complying with a direction, or
    - to maintain the incentive to provide services
- consistency between the frameworks, leading to more predictable outcomes for stakeholders.

This said, the Commission is conscious of the complexities associated with assessing opportunity costs. Some of these include:

- ensuring a common understanding that opportunity costs are a value concept, that is the value foregone, rather than the actual costs incurred
- opportunity costs can vary across different technology types and operation methods, as well as be dependent on the context of the intervention
- there are a wide range of views regarding what should be considered as an opportunity cost, the types of situations where they can arise and the appropriate way to value a claim.

Noting these complexities, further work is needed to ensure that the compensation framework for opportunity costs can operate smoothly and provide certainty for all stakeholders.

22 The term resource-limited is used to refer to generators that have scarce capacity or resources with which to generate electricity.

Draft recommendation 2: Participants should be eligible to claim opportunity costs in each of the directions, administered pricing and market suspension compensation frameworks.

Do stakeholders agree with this approach?

Do stakeholders have specific views on the risks and benefits of this approach, or how they could be managed?

3.1.1 The Commission recognises the importance of opportunity costs

A number of stakeholders suggested that opportunity costs should be considered across all compensation frameworks.[23] Many noted that opportunity costs can arise for participants regardless of the type of intervention that occurs.[24] The Commission agrees with this position. Although generators may not choose to be directed, a direction could foreseeably lead to a generator being unable to pursue a future opportunity due to the scarcity of their generation capacity.

Stakeholders also commented on the importance of considering opportunity costs for generators that are energy-limited and have a finite capacity to generate electricity over a given period.[25] The Commission agrees that for resource/energy-limited generators, the use of some finite capacity available to them can preclude the use of this capacity at an alternative, and potentially more profitable, time. This means that the current approach to the directions compensation framework is unlikely to be suitable in an energy system with a high penetration of energy-limited generation capacity.

3.1.2 The Commission has clarified some aspects of opportunity cost compensation

As part of its ongoing assessment for opportunity cost claims from the June 2022 events, the Commission has noted that there is uncertainty among stakeholders on how to value opportunity costs. The Commission considers that improving clarity on this issue is likely to lead to more certainty for participants when dealing with future costs.

As set out in the compensation guidelines, opportunity costs are defined as the value of the best alternative forgone opportunity for eligible participants.[26] The Commission applied this to its final determination for Snowy Hydro's opportunity cost claim, noting that "the value of the foregone opportunity should be the revenue associated with the alternative opportunity less the costs that would have been incurred in pursuing it". The Commission went on to comment that the value of opportunity costs should be the profit foregone and not the revenue foregone.[27]

The value of the future opportunity needs to be calculated taking into account to the costs of pursuing that opportunity.

The Commission recommends that any future guidelines reflect this approach to opportunity costs.

23 Submissions to the consultation paper: AGL, pp 2-3; Alinta, p 2; AEC, p 4; CS Energy, pp 5-6; EUAA, p 3; Hydro Tasmania, pp 1-2; Shell, p 4; Snowy Hydro, p 4; Delta, pp 2-3; Origin, pp 1, 3-4.

24 Submissions to the consultation paper: AGL, p 2; Alinta, p 3; AEC, p 4; Shell, p 4; Origin, p 1.

25 Submissions to the consultation paper: AEC, p 4; CS Energy, p 5; Hydro Tasmania, p 2; Shell, p 4; Snowy Hydro, p 4; Origin, p 3.

26 AEMC, *Compensation guidelines*, 1 December 2022, p 12.

27 AEMC, *Snowy Hydro Limited direct and opportunity cost claim*, Final decision, 16 May 2024, p. ii.

3.1.3 Assessing opportunity costs can be complex, but will be necessary given the likely future generation mix

Consideration of opportunity costs will enable the compensation frameworks to meet their objectives. Assessment of opportunity costs however can be more complex than assessment of direct costs alone. We consider that these complexities will need to be addressed in order to smoothly administer claims for opportunity costs. The complexity of considering opportunity costs should be worked through to ensure that the compensation frameworks:

- are more predictable for participants through improved consistency and better guidance
- remain fit for purpose in the NEM over time and continue to achieve their objectives.

Opportunity costs increase the complexity of compensation claims

Claims for opportunity costs under the administered pricing compensation framework were made for the first time following the events of June 2022. A key lesson from that process is that the claims for opportunity costs have been complex and time-consuming to assess. There are several factors that have contributed to the assessment of these claims being slow, which are set out below. A primary factor is the lack of deadlines for the submission of supporting information for administered pricing compensation claims. This issue is dealt with in chapter 5.

Complexity of supporting information

The type of supporting information to support a claim for opportunity costs is inherently more complex than a claim for direct costs. For example, claims for direct costs can be supported with data and receipts for fuel consumed or maintenance costs incurred. Claims for opportunity costs on the other hand require an assessment of a counterfactual scenario and likely outcomes in that context. This information is likely to be driven by a number of assumptions about the likely state of the world that cannot be verified to the same extent as claims for direct costs.

The assessment of the validity of this supporting information creates an additional element of complexity compared to direct cost claims. While this is the case, ignoring this complexity can also lead to poor outcomes. If the full range of impacts of an intervention are not accounted for, the frameworks are likely to under-compensate generators on an ongoing basis. This approach is not in the long-term interests of consumers, as participants will account for likely losses associated with interventions in investment and operational decision-making.

Furthermore, having a range of approaches to consideration of costs other than direct costs is likely to reduce the predictability of outcomes in the compensation frameworks. The Commission considers there is benefit in moving from a loss of revenue approach to an opportunity cost approach for directions to:

- provide more clarity to claimants about the intention of the framework
- ensure more predictable outcomes for claimants.

Opportunity costs can be bespoke between participants

The type of opportunity costs incurred by different participants can be bespoke depending on the particular circumstances faced by the claimant. This can lead to a number of additional complexities when considering claims for opportunity costs, including:

- <u>Lack of clarity regarding the standard of evidence needed to support a claim:</u> Given the range of different types of claims, requirements for supporting information have historically been high level and open to interpretation, both on the side of the claimant and the assessor. This can lead to uncertainty regarding the standard of evidence needed to justify a claim, and an ongoing process of clarification to ensure all relevant information is presented in support of a claim.

- Lack of clarity regarding which methodologies to use to claim opportunity costs: Given the breadth of potential opportunity cost claims, it may be difficult to develop specific methodologies that cater to the bespoke circumstances of all claimants. The use of varying methodologies increases the complexity of the assessment and reduces the potential for standardisation of these claims.

Although there are ways to mitigate some of these complexities, the Commission expects that these features will remain to some extent. Consideration of opportunity costs is inherently uncertain and bespoke, and any assessment framework will therefore include a trade-off between timeliness and accuracy.

In the Commission's view, ignoring the complexity associated with bespoke arrangements all together would detract from the objectives of the frameworks. This is because it does not acknowledge that participants can have differing circumstances regarding operational costs. These different costs need to be factored in when keeping participants whole which will continue to provide the right incentives for participants to respond during times of market stress.

There are likely to be a range of views on how opportunity costs should be assessed

In addition to the complexity of opportunity costs, there are likely to be a range of views across key stakeholders regarding how opportunity costs should be treated. In the *Compensation arrangements under administered pricing* rule change, the Commission noted that the fundamental issue associated with opportunity costs is that the estimates can be both very high and volatile depending on the scope of the calculation.[28]

Further evidence on the range of views regarding the treatment of opportunity costs can be found in the reports where these issues have been considered before. This includes previous:

- Commission decisions, where the Commission took a different view compared to the claimants on both the presence of limitations and the methodology for calculating opportunity costs[29]
- independent expert reports regarding loss of revenue, where the independent expert has taken a different view compared to claimants on the methodology for valuing lost revenue.[30]

The Commission notes that some of these differences may be addressed through further consultation with industry, and it is unlikely that a single approach will be able to meet the needs of all relevant stakeholders. However, the Commission does not consider this an appropriate reason to exclude opportunity cost claims across all frameworks:

- Having a consistent approach across all frameworks will better enable engagement on the appropriate approach, and lead to greater predictability for participants.
- The decision to allow claims for opportunity costs across all frameworks will assist in reducing disparate views on the appropriate approach.
- Continuing to compensate for loss of revenue in the directions compensation framework would likely lead to more confusion when forming a shared understanding of the approach to compensation.

28 AEMC, *Compensation arrangements following administered pricing*, Final determination, 4 February 2016, p 42.

29 AEMC, *Administered pricing compensation claims relating to June 2022 event*.

30 AEMO, Independent Expert Report - Additional compensation to generators during billing weeks 25-26 2022, 1 May 2023.

Further work is required with the industry to reach a shared understanding on opportunity costs

The Commission recognises that further work is required to navigate this complexity and make the assessment of opportunity costs more certain for all parties involved. More details on the process for completing this work are set out in chapter 4.

3.1.4 The circumstances for electricity directions compensation are different from gas directions compensation

The Commission notes that this draft recommendation is different from its decision in the *Compensation and dispute resolution frameworks* rule change.[31] In that rule change, the Commission decided not to include opportunity costs as part of the compensation framework for gas directions.

The Commission's decision reflected the specific characteristics of the gas system and the situations in which directions are likely to arise. The Commission considered that allowing for compensation based on opportunity costs may create a marginal preference for a directed state at times of market stress. The Commission considered that this would not support the normal operation of the market. Given that gas directions are likely to be given at times of high market prices, the Commission's preference was that participants were strongly incentivised to participate in the market to avoid the need for directions to be issued. This was achieved by excluding opportunity costs from the calculation of compensation payments.

The Commission notes that the final determination for that rule change created special arrangements for compensation for stored gas to avoid creating perverse incentives for storing gas.[32]

There are reasons to treat electricity differently

The Commission considers there are reasons to treat electricity differently from gas regarding opportunity costs. Primarily, these are that:

- electricity directions have not historically coincided with periods of high spot prices, so concerns about incentives to participation are less crucial
- consideration of energy-constrained plant is expected to be a significant feature of the NEM in future.

Gas directions coincide with periods of high spot prices

Gas directions contemplated in the *Compensation and dispute resolution frameworks* rule change are primarily intended to be used to maintain and improve the reliability or adequacy of gas supply within the east coast gas system.[33] In this context, the Commission considered that compensation for opportunity costs could detract from strong signals for market participation at times of supply scarcity in the gas system.

On the other hand, in the electricity system the overwhelming majority of directions are made to manage system security.[34] Particularly for directions made in South Australia, thermal generators frequently de-commit from the market for economic reasons, for example, the spot price is not

31 AEMC, *Compensation and dispute resolution frameworks,* Final determination, 7 March 2024, p 20.

32 AEMC, *Compensation and dispute resolution frameworks,* Final determination, 7 March 2024, p 24.

33 AEMC, *Compensation and dispute resolution frameworks,* Rule change request, p 4.

34 Reliability Panel, *Annual Market Performance Review 2022,* pp 70-71.

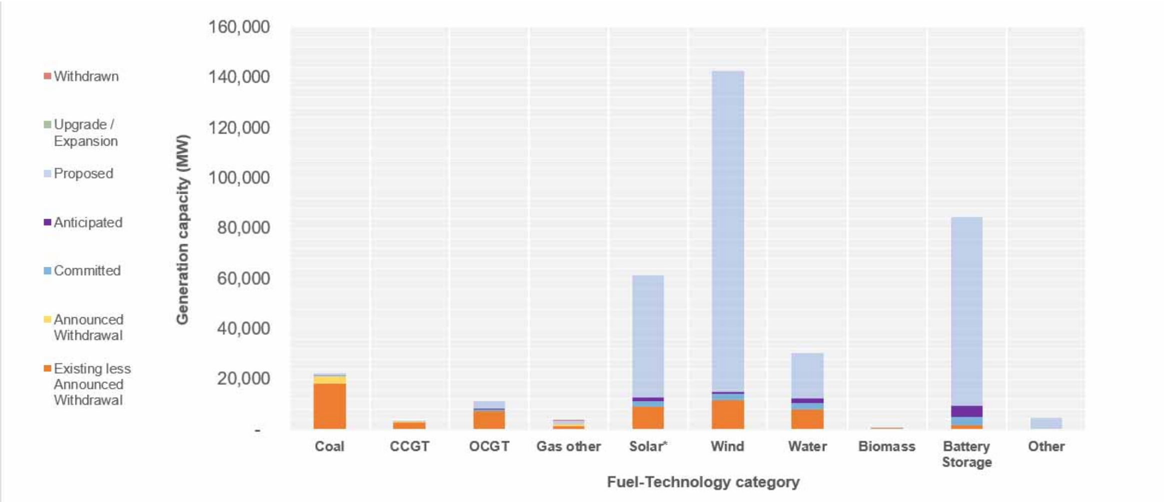
high enough to cover the cost of their operation.[35] Therefore, the Commission considers the risk of interfering with market signals at these times is lower than in the gas compensation framework.

Directions made during periods of low spot prices may also interfere with a generator's normal pattern of operation. This is particularly the case with energy-limited plant, which can be expected to target periods of relative high prices for generation. Counter to the issue of weakening incentives to participate during high-price periods, directions could inhibit a generator from maximising the value of its dispatch, imposing penalties relative to normal operation. Exclusion of opportunity costs from compensation could mean that a generator is not made whole as a result of being directed.

The electricity compensation framework needs to be designed to work with energy-constrained plant

The Commission considers that the large proportion of energy-constrained plant expected in the generation mix places greater emphasis on the relevance of opportunity costs for consideration in compensation payments in the electricity compensation framework. Energy-constrained plant is expected to become more prevalent in the electricity system and market over time. AEMO's NEM Generation Information spreadsheet indicates that a significant amount of water and battery storage plants have been proposed, or are anticipated or committed.[36] This extra emphasis on considering energy constrained plant is a key point of differentiation between the gas and electricity compensation frameworks.

Figure 3.1: NEM generation information overview



Source: AEMO, *NEM Generation Information May 2024*

3.2 Volume-weighted average price for upfront directions compensation

The Commission's draft recommendation is that upfront compensation for directions should be based on the VWAP by technology type in each region. The Commission considers that this approach:

- is aligned with the policy objectives of taking a benchmark-based approach to directions compensation as proposed, which was to achieve greater accuracy of compensation for the

35 AEMO, *Quarterly energy dynamics, Q4 2021*, pp 36-37.

36 AEMO, *NEM Generation Information May 2024*, 27 May 2024.

relevant technology type by having targeted compensation payments, rather than a single payment regardless of technology type

- addresses key points of stakeholder feedback from the ISF second directions paper and the consultation paper for this Review, which were that the benchmark inputs were not fit for purpose, and the benchmarking approach would not fairly compensate storage plant.

Draft recommendation 3: The upfront payment for directions compensation should be changed to reflect the volume-weighted average price received by assets of the same technology type in the same region for the previous 12 months.

Do stakeholders think this approach addresses concerns raised in response to the benchmarking approach?

Do stakeholders have views on the specifications of this approach?

Are there any risks that the Commission should be aware of with this approach?

3.2.1 Upfront compensation ensures cashflows for directed generators

The Commission considers that there are two important considerations for directions compensation. These are that it:

- is sufficient, so that generators neither incur losses as a result of complying with a direction, or receive windfall gains as a result of being directed
- ensures reliable cashflows, so that participant business operations are not materially affected by directions.

The accuracy of compensation can be ensured either through the upfront payment or through claims for additional compensation, whereas cashflow considerations should be met through the upfront payment.

The upfront payment for directions compensation is currently calculated as the 90th percentile price for energy or FCAS for the preceding 12 months from when the direction was issued where a participant is directed for:

- energy
- market ancillary services or
- system security services where energy is supplied incidentally.[37]

3.2.2 The ISF rule change noted problems with the 90th percentile price

As part of the ISF rule change, the Commission proposed that the upfront payment for directions compensation should be based on the benchmarking approach used for market suspension compensation.[38]

The benchmarking approach uses a formula to estimate the short run marginal cost (SRMC) of generators. The formula is applied to inputs from AEMO's Inputs and assumptions workbook.

37 The National Electricity Code Administrator (NECA) and the National Electricity Market Management Company (NEMMCO) completed the *Review of power system directions in the National Electricity Market* completed in 2000. This review set out that compensation payments for directions should not be set to the prevailing spot price at the time of the direction, but should be a "fair payment" that aims to cover the costs incurred by a generator in complying with a direction. See page 29.

38 See section 6.2 of the *Improving security frameworks for the energy transition* rule change, Second directions paper, 24 August 2023.

Box 2: Benchmark value of generation

During periods of market suspension, market participants are entitled to receive compensation based on predetermined 'benchmark values' that are calculated using the SRMCs of scheduled generators in each region. Using values contained in the ISP's 'Inputs and Assumptions' workbook, the SRMC of each generator is calculated using the following formula:

$$SRMC = (FC \times E) + VOC$$

- FC refers to the generator's fuel cost in $/GJ
- E refers to the efficiency of the generator in GJ/MWh
- VOC refers to the variable operating cost in $/MWh.

Benchmarks for each generator type in each region are calculated by taking a capacity-weighted average of each relevant generator's SRMC. For example, to calculate the benchmark values for CCGT generators in South Australia:

- the SRMC of each CCGT generator in South Australia is calculated using the formula above and the most recent ISP data values
- the total capacity of all CCGT generators in South Australia is calculated
- using this total capacity, a capacity-weighted average of all the South Australian CCGT generator SRMCs is calculated.

Following the publication of each ISP, AEMO is required to calculate the benchmark values for each generator type in each region and publish a market suspension compensation schedule that contains the updated benchmark values.

The amount payable to a market participant is the relevant benchmark value multiplied by the sent-out generation of the participant, **supplemented by a 15% premium**. This premium accounts for the variability of heat rates between generators, plant loading, ambient temperatures and any other factors that would cause a divergence between the estimated and true costs of generators.

This compensation framework also applies to participants who are directed during market suspension periods, rather than using the 90^{th} percentile price.

Market participants can also choose to lodge a claim for additional compensation to recover any direct costs not covered by the automatic market suspension compensation amount.

Source: AEMC, *Improving security frameworks for the energy transition,* Second directions paper.

This change was proposed for a number of reasons, including that the 90th percentile:

- is not a measure that is particularly reflective of generator costs across a range of technology types, and therefore risks either under or over-compensating directed generators relative to their costs
- can be highly variable during periods of high spot price volatility (for example between 2021 and 2023).

The Commission anticipated that the benchmark approach would have benefits, including:

- compensation based on an estimation of SRMC would better reflect the different and varying operational costs of each type of generator, improving the framework's cost efficiency
- it would likely reduce the risk of over and under-compensation to generators in prolonged periods of high or low spot prices, which would better balance the needs of consumers with directed participants

- it would reduce the incentive for generators to withhold supply from the market during periods of high spot prices to earn more revenue by being directed, thereby promoting system security
- generators could provide feedback to AEMO on fuel costs during its consultation on ISP inputs and assumptions, which would improve the validity and accuracy of the planning framework
- by aligning the directions and market suspension compensation frameworks, it would provide predictability and simplicity for market participants across intervention events.

3.2.3 The Commission considered feedback on the proposed benchmarking approach

The Commission notes stakeholder feedback received in response to the proposal for directions compensation to use a benchmarking approach. Key issues that were common to many responses included:

- The ISP Inputs and Assumptions numbers not being fit for the purpose of determining compensation amounts.[39]
- The difficulties of applying the current benchmarking approach to storage technologies.[40]

The Commission considered these issues to some extent in the second directions paper for the ISF rule change. The Commission noted that having the benchmark values updated biennially risks inaccuracy in the framework. To address this, the Commission proposed that more regular updates could be made and that the figures could be updated annually. We note that stakeholders generally considered that this approach would still be inadequate for capturing short-term fluctuations in costs. Some stakeholders proposed that costs could be based on existing market prices, particularly for gas.[41]

Regarding the application of the benchmark approach to storage technologies, the Commission acknowledged that the current benchmark approach would result in very low compensation values for storage plant. The Commission also noted that this may be unlikely to represent the true cost of operating these plant. The Commission proposed several alternatives to address this issue, including:

- using gas benchmark values as a proxy for hydro storage
- developing a specific approach to estimating the SRMC of battery storage.

3.2.4 VWAP can address stakeholder concerns and provide other benefits

AEMO's submission to the consultation paper for this Review outlined a number of options that could be used for upfront compensation payments. Of these, the Commission considers that using the VWAP by technology type in a region is likely to achieve the best balance between the objectives of upfront compensation. The Commission expects this approach will:

- be more reflective of actual generator costs relative to the status quo, which was a key aim of the benchmarking approach
- reflect generator decision-making about market participation in the presence of:
  - start-up costs
  - energy constraints

39 Submissions to the *Improving security frameworks for the energy transition* second directions paper: Alinta, p 4; AGL, p 4; Engie, pp 2-4; Iberdrola, p 3; Origin, p 2; Shell, p 3.

40 Submissions to the *Improving security frameworks for the energy transition* second directions paper: Alinta, p 4; Clean Energy Council, pp 14-15; EnergyAustralia, pp 7-8; Engie, pp 2-4; Iberdrola, p 3; Origin, p 2; Shell, p 3.

41 Submission to the *Improving security frameworks for the energy transition* second directions paper: Origin, p 2.

- address concerns around applying proxies to storage technologies which may not be accurately represented by the current benchmarking approach by basing compensation on historical willingness to sell.

The Commission's view is that the VWAP approach best meets the considerations of accuracy and maintaining cashflows for participants.

The Commission's draft proposal required a number of specifications for the VWAP approach which are outlined below.

The VWAP will be calculated over the previous 12 months

The Commission's draft proposal is to calculate the VWAP based on the previous 12 months from the time for the direction. This aligns with the current timeframes for calculating the 90th percentile price.

There are some trade-offs in considering the time period for the calculation. Stakeholders noted that inputs costs, particularly fuel costs, can fluctuate over short periods.[42] An approach that covers a longer period will not adapt as well to shorter-term fluctuations in price.

Shorter periods will also lead to more volatility in the amount of upfront compensation received by directed participants over time. This variability may lead to less confidence in the amount of initial compensation received at different times.

The Commission also notes that patterns of fluctuation in prices will likely be captured to some extent in a longer-term average. For example, if gas prices generally fluctuate from low in shoulder periods to high in peak periods (particularly winter), the VWAP of gas-powered generators over the previous 12 months should capture some of this variability.

VWAP will exclude periods where generators have been directed

Recently, low spot prices have been a contributing factor to directions being made. Therefore, the Commission considers that the VWAP should exclude periods where a generator is being dispatched due to a direction. Including periods where a generator is being dispatched due to a direction is likely to undermine the reasons for using the VWAP as a basis for upfront compensation payments.

The Commission notes that including these low spot prices in the VWAP calculation would likely lower the compensation amount paid to directed participants below the level needed for them to voluntary participate in the market. This would therefore reduce the effectiveness of VWAP to reflect amounts needed to cover the SRMC of the generator in question.

Technology types can be specified by AEMO's NEM generation information spreadsheet

The Commission proposes that the categories of technology type could be set based on information in AEMO's *NEM Generation Information* document.[43] This document provides 21 "technology type" categories based on the design of the generator.

Claims for additional compensation will be retained to account for any instances of significant under-compensation

For clarity, the Commission proposes to retain the ability for claimants to make claims for additional compensation if the upfront payment is not sufficient. As set out in section 3.1, the

42 Origin submission to the *Improving security frameworks for the energy transition* second directions paper, p 2.

43 AEMO, Generation information.

Commission's draft recommendation is that claims for additional compensation for directions should include opportunity costs.

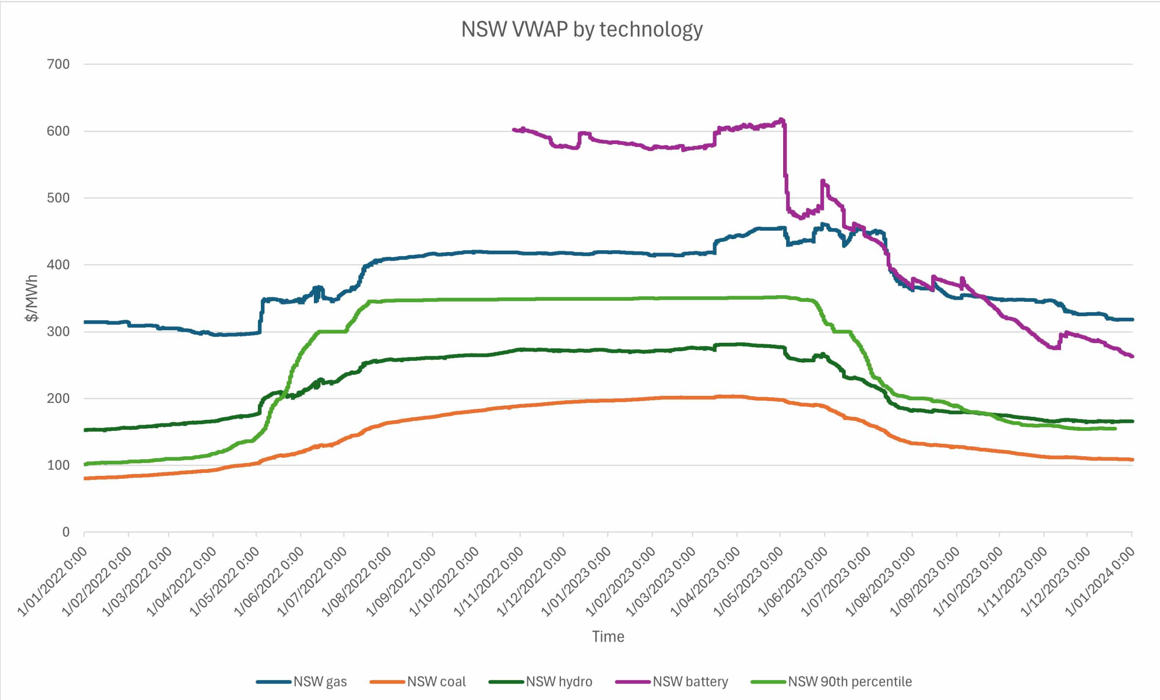
3.2.5 The risks associated with this approach can be appropriately managed

There are potential risks associated with using the VWAP approach to upfront directions compensation. The Commission considers that there are mitigation approaches that limit the potential impact of these risks.

Upfront claim amounts could be high for particular technologies

Relative to the 90th percentile price, the VWAP for some technology types might be relatively high, which could lead to relatively high upfront compensation amounts. This particularly may be the case during periods of extreme market volatility, such as the events of June 2022.

Figure 3.2: NSW VWAP by technology type 2022-2023



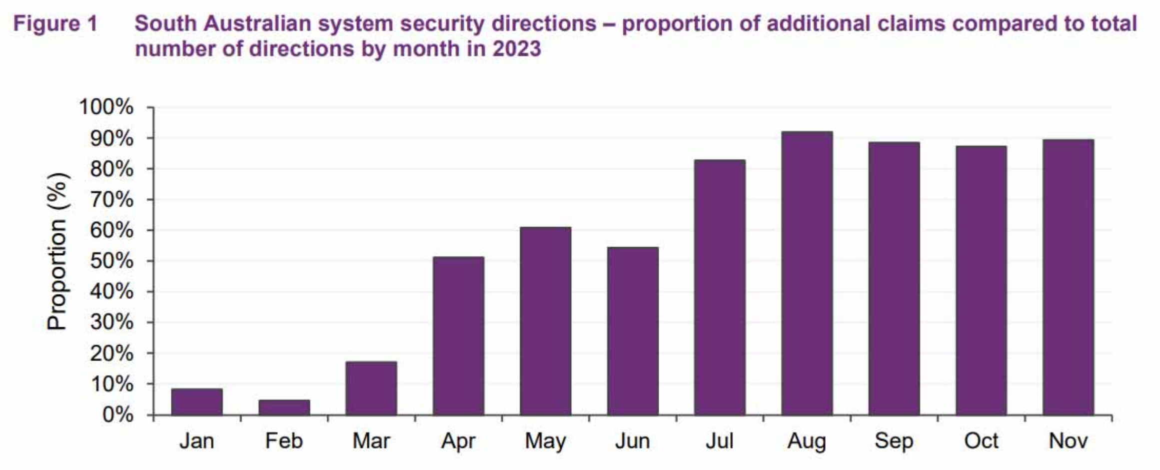
Source: AEMO MMS database

Note: Variability in VWAP is generally lower than variability in the 90th percentile during periods of spot price volatility.

Note: The first battery was commissioned in NSW in late 2021, meaning that the VWAP for the previous 12 months can only be calculated from late 2022. This explains the partial line in the graph above.

High VWAPs for certain technology types are expected. A high VWAP is likely to indicate that certain generation technology types require high spot prices to cover the cost of operation. Furthermore, as set out in AEMO's submission to the consultation paper, the current approach to upfront generator compensation leads to a high proportion of direction requiring claims for additional compensation. It can be inferred that the sufficient amount of compensation in these cases is regularly higher than the current amount of upfront compensation.

Figure 3.3: Directions in South Australia frequently require additional compensation



Source: AEMO submission to the consultation paper.

The Commission does consider however that very large compensation payments should be subject to a more thorough assessment. To balance the issue of applying the appropriate amount of scrutiny with minimising the inefficiency of the upfront compensation process, the upfront compensation amount could be capped at the level of the APC.

The APC is set at a level to allow generators to cover their short-term costs during an administered price period. It also reduces financial risks by limiting ongoing financial exposure for participants. The Commission considers that capping upfront directions compensation at the level of the APC is an appropriate limit to reduce the risk of overcompensation through upfront compensation payments.

There may be the potential for manipulation of the compensation amount

Any compensation based on an historical average is potentially subject to manipulation by market participants. This is because their behaviour can influence market outcomes, which then contributes to compensation calculations. The Commission considers that there are a number of factors with the proposed approach that minimise this risk. These are that the:

- VWAP calculation is based on a number of generators, reducing the ability of individual participants to affect their own compensation payment
- calculation being over a year reduces the impact of short periods of time from having a significant effect on compensation payments.

Having the upfront compensation payment capped at the APC also reduces the impact of any potential gaming that could occur.

3.3 Upfront payment mechanisms can be harmonised

The Commission recommends that the current benchmarking approach to upfront compensation mechanism for market suspension periods can be substituted with the VWAP approach used for directions compensation.

The upfront payment mechanism for market suspension compensation would therefore be the greater of the MSPS and the VWAP by technology type for the previous 12 months in that region.

The Commission considers that this approach is likely to simplify the compensation process by removing unnecessary complexity.

Draft recommendation 4: The upfront payment for market suspension compensation should be the greater of the MSPS price and the upfront payment for directions (calculated as theVWAP).

Do stakeholders agree that this approach will lead to greater clarity between the compensation frameworks?

Are there any risks associated with this approach that the Commission should be aware of?

3.3.1 There are currently three upfront payment mechanisms

Each compensation framework can effectively be thought of in two parts, an:

1. upfront payment mechanism to manage cashflow issues for generators.
2. additional claims process to ensure that any generators that incur a loss from the upfront mechanism can be made whole.

Each of the frameworks being considered in this Review have differences between both the upfront mechanism and the additional mechanism. The Commission's draft recommendation to allow consideration of opportunity costs for all compensation claims addresses the major difference in the additional claims mechanism.

Table 3.1: Overview of upfront compensation mechanisms

Framework	Method for upfront compensation
Directions	Directed participants receive the 90th percentile spot price for the previous 12 months in the relevant region.
Administered pricing	The market price capped at the administered price cap (currently $600/MWh)
Market suspension	All participants receive the greater of: • The market suspension price (set as an average of the spot price in a thirty-minute interval for the previous 28 days), or • The benchmark value for generation, set out in a formula in the NER.

3.3.2 The upfront payment for administered pricing compensation should not be changed

As set out in the table in section 3.1 above, the upfront payment mechanism for administered pricing compensation is simply the spot market, capped at the APC. The Commission considers that with the APC set at an appropriate level, any upfront payment received during the APC should cover the SRMC of all dispatched generators in that trading interval. This is because the price will be set by the marginal bid dispatched in that interval, meaning all other dispatched bids were willing to be dispatched for an equal or lower amount. Therefore, the Commission's draft position is to make no change to the current approach.

3.3.3 There are reasons for upfront compensation for directions and market suspension

Specific upfront payment mechanisms are in place for the directions and market suspension compensation frameworks. The reason these mechanisms are needed is because the prevailing market price is not able to be used for upfront payment.

The upfront directions compensation payment is used to address cashflow concerns for parties that have been directed. As discussed in section 3.2.1, the spot price is withheld for directed parties. Directed parties are instead paid the 90th percentile price.

The upfront market suspension compensation payment is necessary because the spot market is no longer operating and therefore AEMO is unable to determine a clearing price as it normally would. NER clause 3.14.5(b) sets out that if it is not practicable to operate central dispatch and determine spot prices in a suspended region, AEMO must set spot prices in the suspended region equal to the MSPS.

The MSPS is set as the average of the price in the relevant 30-minute interval over the previous 28 days.[44] It aims to reflect recent spot market outcomes. The Commission considers that one approach to upfront market suspension compensation would be to use the MSPS, and allow claims for additional compensation. However, as noted during the *Participant compensation following administered pricing* rule change, if the MSPS does not adequately cover operating costs, this approach may result in generators preferring to wait for a direction.[45] Because the MSPS is not reflective of actual market dynamics, there may be periods where the bid of the marginal unit is higher than the price set by the MSPS, in which case it would not be incentivised to run.

The current approach to upfront payments in the market suspension compensation framework is to pay generators the higher of the:

- MSPS price, or
- benchmark value set out in section 3.2.2.

This approach aims the address the issue of the MSPS not covering generator costs set out above by offering upfront compensation to any generator dispatched during a period of market suspension with a VWAP that is less than the MSPS.

The current approach also recognises that the 90th percentile price paid as upfront compensation for directions may be higher than the SRMC benchmark value at certain times. To remove the incentives to favour a directed state during market suspension periods, directed generators also receive the benchmark value, instead of the 90th percentile price.[46]

3.3.4 There are issues with the current approach to market suspension compensation

The current approach to market suspension compensation was introduced in the 2018 *Participant compensation following market suspension* rule change.[47] The intent of this approach was to develop a compensation framework that was predictable and administratively simple.

As set out in section 3.2.3, stakeholders have identified significant concerns with the benchmarking approach.

44 AEMO, Market suspension pricing methodology, 9 October 2023.

45 AEMC, *Participant compensation following administered pricing*, Final determination, p 2. https://www.aemc.gov.au/sites/default/files/2018-11/Final%20determination_0.pdf

46 NER clause 3.15.7(d1).

47 AEMC, *Participant compensation following market suspension rule change*, 15 November 2018.

3.3.5 The intent of the existing market suspension framework can be achieved more simply

The Commission considers that consolidating the upfront payment mechanisms for directions and market suspension to be the VWAP for the technology type over the previous 12 months is likely to have multiple benefits, including:

- reduced complexity by having a single approach
- addresses the current issues with the benchmarking approach set out in section 3.2.2.

The Commission considers that having the upfront mechanism for market suspension compensation be the greater of the MSPS and the VWAP for the technology type for the previous 12 months will help to maintain the incentive to supply services during a market suspension period. This is because any plant dispatched during the MSPS will be either no worse off or better off compared to if it was directed.

3.4 There should be no changes for constrained-on generators

The Commission's draft position is that no changes are made to the NER regarding constrained-on generators. The Commission considers that issues regarding the frequency of directions are likely to be addressed through the ISF rule change.[48] Furthermore, the Commission's intention is that these new frameworks are the primary mechanism for the management of system security moving forward.

3.4.1 A number of stakeholders suggested changes in this area

In response to the consultation paper, a number of stakeholders raised the issue of constrained-on generators not being able to receive compensation due to the spot price being lower than their dispatched bid price.[49] This is set out in NER clause 3.9.7(b).

A number of stakeholders commented that this clause is a significant factor in the number of directions currently being issued to manage system security services. Stakeholders set out that as a result of compensation being unavailable for constrained-on generators, these participants are "likely to bid as unavailable to avoid being constrained-on and running at a loss".[50] Stakeholders suggested that enabling constrained-on generators to seek compensation payments would remove the need to withdraw capacity in these situations and therefore reduce the number of directions overall.

3.4.2 The Commission considers that the ISF rule change addresses these issues

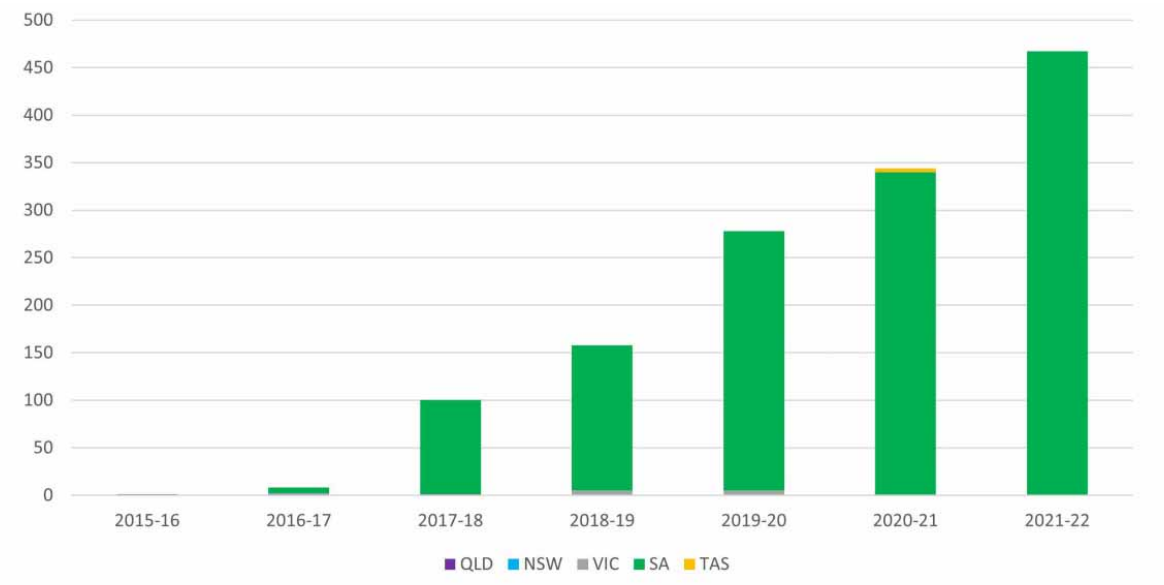
The Commission notes that directions have been used more than intended in recent years to manage system security concerns. These directions have generally been contained to South Australia, where the shift away from synchronous generating units has created a shortfall in system strength and inertia.

48 AEMC, *Improving security frameworks for the energy transition*, 28 March 2024.

49 Submissions to the consultation paper: Alinta, p 1; AEC, p 2; CS Energy, p 8; EA, p 2; Shell, p 2;

50 Submission to the consultation paper: Shell, p 2.

Figure 3.4: Directions for system security



Source: Reliability Panel, *AMPR 2022*.

The Commission notes however that directions for system security outside of South Australia are rare, with a total of 18 directions being issued outside of South Australia between 2015-16 and 2021-22.[51]

The ISF rule change introduces mechanisms designed reduce reliance on directions to manage power system security.[52]

The Commission considers that the combination of these changes aims to ensure that sufficient security services are provided as the power system continues to transition to higher penetrations of inverter-based resources. It also ensures AEMO can procure necessary system security services that fall outside the existing frameworks and enable security services in operational timeframes to ensure that the power system is secure day-to-day.

The Commission considers that this rule change should reduce the regular and inefficient use of directions, consistent with stakeholders' suggested change to clause 3.9.7.

Allowing constrained-on generators to access compensation through the directions compensation framework would create a secondary mechanism for procuring and funding system security services. The Commission's draft position is that it is preferable for the provision of system security services to be procured through the new ISF frameworks.

The Commission's draft recommendation is therefore not to make changes regarding arrangements for constrained-on generators.

3.5 No recommendation for stronger obligations at this time

In the consultation paper, the Commission noted the possibility of implementing stronger obligations on participants to provide services during periods of market stress.

51 Reliability Panel, *Annual Market Performance Review 2022*, Data file, 30 March 2023.

52 AEMC, *Improving security frameworks for the energy transition*, Final determination, 18 March 2024.

This was in reference to proposals made by the AER in its *June 2022 market events report*.[53] The AER's report suggested that policymakers may wish to consider whether power system security should be prioritised at times of system stress.

The AER specifically raised whether commercial considerations should be excluded as reasonable cause for generators to contribute to AEMO directions. The AER raised a number of potential methods to achieve this, including:

- expressly stating that commercial considerations cannot form reasonable cause to act in a way that causes a direction
- introducing positive obligations to offer capacity during actual lack of reserve (LOR) periods during an APP
- obliging generators to use available price bands during administered price periods.

The AER noted that these approaches may have merit as it appears that the compensation frameworks failed to incentivise generators to supply energy during the APP as per their stated objective.

3.5.1 The issues raised in this area are being addressed by other changes

The Commission agrees with the AER that the current frameworks may not have achieved the objective to maintain the incentive to supply capacity at all times.

The Commission notes that there are a number of changes that have been made, or are currently being considered, to address this issue.

The first key change is that the APC has been increased to $600/MWh until 30 June 2028.[54] The Commission considers that this was a key factor in the events of June 2022. The AER also notes in its report that an APC of $300/MWh was insufficient to cover the SRMC of most conventional gas or coal generation in these particular circumstances.[55]

The AER further notes that although a higher APC will not address the issue of generators withdrawing capacity to manage their fuel, it may assist in encouraging generators to continue to operate through normal market dispatch during administered price periods.[56]

The Commission notes that the increased APC may have contributed to improved security and reliability outcomes during the administered price period in May 2024 in New South Wales.[57] Although this event is relatively recent, a number of the issues that occurred in June 2022 seemingly did not eventuate, including:

- limited further intervention from AEMO was required to maintain system security and reliability
- no large withdrawal of capacity from dispatchable plant.

Although there may be differences in the surrounding circumstances of May 2024 and June 2022, the Commission notes that concerns arising from the events of June 2022 did not re-occur in May 2024. The Commission considers this is to some extent due to the higher APC.

The second set of changes are being considered in this review. These changes aim to sharpen the compensation frameworks to ensure that the objectives are met during future periods of system stress. Some change that are particularly relevant are:

53 AER, *June 2022 market events report*, December 2022.

54 AEMC, *Amendment to the market price cap, cumulative price threshold and administered price cap*, Final determination, 7 December 2023.

55 AER, *June 2022 market events report,* p 3.

56 AER, *June 2022 market events report,* p 26.

57 AEMO, Administered price cap activated in NSW, Media release, 9 May 2024.

- standardising the types of costs that can be claimed
- clarifying the eligibility for administered pricing compensation
- specifying timeframes for claim processes.

The Commission considers that changes to the following areas of the frameworks are likely to lead to improved market outcomes during these periods.

3.5.2 There are risks associated with stronger obligations that need to be carefully managed

The Commission agrees with the AER that the suggested policy changes may also contribute to improved system security outcomes during periods of market stress. The Commission is also wary of additional risks created for participants arising from the changes proposed by the AER. A number of these were set out in submissions to the consultation paper, and included:

- interfering with generators' ability to manage their contract positions[58]
- use of available bid bands will have limited effectiveness[59]
- there are risks generators may be limited from prudently managing legitimate risks including fuel shortages.[60]

The Commission considers that the approaches proposed by the AER would need to be worked through in detail to ensure that they achieved an appropriate balance between improving system security and reliability outcomes and imposing additional risks on generators. This is particularly relevant to positive obligations to offer capacity or use of available price bands, and relating to:

- management of energy constraints and fuel limits
- consideration of dispatch peculiarities, such as the national electricity market dispatch engine's (NEMDE) process for dispatching available plant at the same bid price.

Given that the underlying issues set out by the AER are likely to be addressed through a combination of the changes to the APC and improvements to the compensation frameworks, the Commission is not intending to consider these issues further at this time. If the issues noted by the AER persist in future, these options should be given further consideration to weigh up the risks and benefits.

58 Submissions to the consultation paper: AEC, pp 2-3; CS Energy, pp 6-7.

59 Submissions to the consultation paper: AEC, pp 2-3; CS Energy pp 6-7; Shell, pp 5-6; Snowy Hydro, pp 2-3.

60 Submissions to the consultation paper: Shell, pp 5-6; Snowy Hydro, pp 5-6.

4 We recommend streamlining governance of the compensation frameworks

This chapter outlines the Commission's draft recommendations regarding the governance of the compensation frameworks. The recommendations are focused on three key areas:

- receipt of claims
- assessment of claims
- provision of guidance for claim assessment.

4.1 AEMO should receive all compensation claims

The Commission's draft recommendation is that AEMO should receive all claims for compensation. The Commission considers that this is likely to simplify the stakeholder experience with the compensation frameworks.

> **Draft recommendation 5: All compensation claims should be lodged with AEMO.**
>
> Do stakeholders have any views regarding this draft recommendation?

4.1.1 Stakeholders suggested a single point of receipt for compensation claims.

Claims for administered pricing compensation currently have to be submitted to AEMO and the Commission.[61] Claims for additional directions and market suspension compensation are only submitted to AEMO.[62] A number of stakeholders suggested that having a single point of receipt for claims will reduce confusion in the process for claiming compensation and improve certainty for market participants.[63]

4.1.2 A single point of receipt will improve market outcomes

The Commission agrees with stakeholders that that having two points of receipt for administered pricing compensation claims creates unnecessary confusion.

The Commission considers that AEMO should be the single point of receipt for claims across all three frameworks. This approach aligns with the approach used currently for directions and market suspension compensation. The Commission considers this approach will maximise stakeholder certainty and confidence in the compensation processes. This, in turn, will lead to better reliability and security outcomes for consumers.

4.2 AEMO and the independent expert should assess all claims

The Commission's draft recommendation is that AEMO and the independent expert should be responsible for the assessment of all compensation claims. In the Commission's view this approach is likely to be in the best interests of consumers as it:

- maximises predictability in the process by aligning the assessment of all compensation claims

61 NER clause 3.14.6(h).

62 NER clause 3.14.5B(a) and NER clause 3.15.7B(a).

63 Submissions to the consultation paper: AGL, p. 4; Alinta, p. 3; AEC, p. 5; EnergyAustralia, p. 3; Hydro Tasmania, p. 3; Snowy Hydro, p. 4.

- will maximise the administrative ease for assessing claims by having a limited number of bodies involved in the claim assessment
- will result in minimal changes to roles and responsibilities compared to the status quo.

Opportunity cost claims often involve complexity and need rigorous assessment. The Commission considers that it should retain the role in publishing guidelines on assessing opportunity cost claims, as set out below in section 4.3.

The Commission notes that the independent expert's assessment of administered pricing compensation claims would be in addition to the current arrangements for assessment of compensation claims. Claims for additional compensation would be sent to the independent expert if it is a claim:

- for additional market suspension compensation and the value of the claim is greater than or equal to $50,000
- for additional directions compensation and the value of the claim is greater than or equal to $20,000 and the additional intervention claim that includes the claim is greater than $100,000
- for additional administered pricing compensation
- under any framework for opportunity costs.

As set out in NER clause 3.12.3(d), the final report and final assessment of the independent expert is final and binding. The Commission proposes that this would continue to be the case for any new types of compensation assessed by the independent expert.

Draft recommendation 6: AEMO, using the independent expert function, should assess claims for administered pricing in addition to the directions and market suspension compensation frameworks. All claims for opportunity costs should be assessed by the independent expert.

Do stakeholders have any views on the proposed governance framework for claim assessment?

Do stakeholders have any suggestions for specific governance settings to ensure that this approach works well?

4.2.1 The proposed approach is the most aligned with the assessment criteria

Based on the assessment framework, the Commission considered the following in making its draft recommendation:

- ensuring that the assessor has the appropriate skills to make determinations regarding opportunity costs
- ensuring predictability for the assessment of compensation claims
- minimising unnecessary administrative complexity regarding the assessment of compensation claims
- allowing for straightforward implementation.

As set out in the consultation paper, there are a range of options that could be taken for assessing opportunity costs.[64] Each of these has associated benefits and risks, which were also set out in the consultation paper.

64 AEMC, *Review into electricity compensation frameworks*, Consultation paper, pp 29-30.

The Commission considers the independent expert has the appropriate skills to assess claims for opportunity costs

In the consultation paper, the Commission noted that AEMO is not an economic regulator and that its functions to date have not included determining opportunity costs. This is a key issue associated with making AEMO responsible for the assessment of claims for opportunity cost compensation. In its submission to the consultation paper, AEMO commented that it would not be appropriate for it to assess opportunity costs as part of administered pricing compensation because it does not have appropriate functions to complete this role.[65]

The Commission is confident however that the independent experts currently used by AEMO to assess large claims for compensation, including claims for loss of revenue under the directions compensation framework, have the appropriate skills to determine claims for opportunity costs. Opportunity cost is an economic concept that requires assessment of likely outcomes under a counterfactual scenario. Similar assessments have been completed by independent experts when assessing loss of revenue claims under the current directions compensation framework.[66] In these claim assessments, the reports indicate that in a number of situations, the independent expert adjusted claimants methodologies when it considered these were not appropriate.

The Commission considers that the independent expert's ability to make these determinations will be enhanced by further clarity and guidance regarding opportunity costs. This is discussed in section 4.3 below.

The proposed approach is aligned with a well-established process for assessing compensation claims

The process for assessing claims for additional directions compensation has been used frequently, particularly in recent years. As a result, stakeholders are likely be more familiar with the workings of this process compared the administered pricing compensation process, which is used far less frequently. The Commission considers that moving to align assessment of administered pricing compensation with AEMO's established process is the option most likely to promote predictability for stakeholders in the outcomes of their claims.

Other approaches to compensation assessment would be less familiar to stakeholders, and therefore would not promote predictability.

The proposed approach removes unnecessary administrative complexity

The Commission considers that the current approach to assessing compensation claims creates unnecessary administrative complexity. Assessment of claims for administered pricing compensation require significant interactions between AEMO and the AEMC, particularly for data verification and the payment of compensation. Additionally, where there are overlapping compensation claims, co-ordination between the two separate bodies is required to ensure that payments made in each scheme are accounted for in the other. Any approach that involves multiple bodies assessing various elements of a compensation claim would likely encounter the same issues.

Therefore, the proposed approach maximises administrative simplicity regarding claim assessment. Having AEMO and the independent expert responsible for assessment of all compensation claims removes the need for coordination between multiple organisations. It also reduces the need for claimants to engage with multiple organisations at the same time.

65 Submission to the consultation paper: AEMO, p 15.

66 See reports by the independent expert from 2016 and 2022.

The Commission expects the implementation of this approach will be straightforward

The Commission notes that the proposed approach of making AEMO and the independent expert responsible for administered pricing compensation claims will involve some changes to current processes. Given that AEMO's processes for assessing other compensation frameworks are already well-established, the process of incorporating one additional process is not likely to be costly. Apart from the status quo, other approaches to assessment of compensation claims would require equal, if not more costly changes to establish processes to complete assessment.

Based on the consideration of the issues above, the Commission's position is that having AEMO and the independent expert responsible for assessment of all compensation claims is the option most aligned with the assessment criteria.

4.3 We should continue to provide guidance for opportunity costs

The Commission's draft recommendation is that we should develop guidelines to inform the independent expert's assessment of opportunity cost claims across all compensation frameworks. This will be an extension of the Commission's current role for the administered pricing compensation framework, where the Commission develops guidelines setting out how claims will be assessed.

Consideration of opportunity costs has impacts for a range of stakeholders. Having the Commission continue to provide guidance on opportunity costs is likely to have benefits for stakeholders, including:

- improving the predictability of the outcomes of claims for opportunity costs
- ensuring that the decisions made are aligned with the objectives of the frameworks and remain consistent over time
- guiding claimants on the information needed to make a claim which will reduce the administrative complexity of the claims process.

Given our recent role in assessing the opportunity cost claims for the June 2022 APP, it would be appropriate for the Commission to retain responsibility for these guidelines. The guidelines would be applied to all compensation frameworks, following input from all relevant stakeholders.

Draft recommendation 7: The Commission should retain responsibility for the guidelines for assessing opportunity cost claims. These guidelines will apply across all frameworks.

Do stakeholders agree that it is appropriate for Commission to take this role of providing guidance?

Do stakeholders have any views on the process for developing the guidelines?

4.3.1 There is value in providing guidance on economic and commercial concepts

As set out in section 3.1.3, there are a number of complexities involved with compensation for opportunity costs. There are a number of risks associated with leaving these complexities unaddressed, including:

- the independent expert is not sufficiently clear on the types of costs that are relevant for compensation
- consumers have increased uncertainty around the likely nature and quantum of opportunity cost claims

- claimants have increased uncertainty about the types of claims that can be made and the supporting evidence required to justify them.

The existence of this complexity means that there is a risk that claims for opportunity costs create additional uncertainty for market participants following interventions. The Commission considers that providing guidelines will improve the predictability of the compensation framework.

A number of stakeholders identified the potential for guidelines to enable a more transparent and easily implemented process for assessing claims for opportunity costs.[67]

The Commission considers that it is the body best placed to continue to administer these guidelines. This is because the Commission:

- **Has experience with the claim process**: The Commission has assessed claims for opportunity costs from the June 2022 APP. This provides first-hand experience of the challenges and relevant issues that would need to be addressed to improve the assessment process. The Commission considers that the experience of these claim assessments is vital input to any future guidance on the topic.
- **Has the relevant expertise to provide guidance on opportunity costs**: Opportunity costs are an economic concept related to the value foregone by taking a particular course of action. Given its mix of economic and commercial expertise, it is appropriate for the Commission to have input into any consideration of opportunity costs in the NEM. Continuing the responsibility for providing guidance on opportunity costs means the Commission can provide its economic and commercial experience to the opportunity cost framework over time.

4.3.2 This would be in alignment with the Commission's current responsibility for compensation guidelines

As set out in NER clause 3.14.6(e), the Commission currently develops the administered pricing compensation guidelines, setting out the:[68]

- types of opportunity costs that claimants can claim
- methodology to be used to calculate compensation payable
- information required to support a claim.

We consider that the guidelines for assessing opportunity cost claims across all three frameworks will be an extension of the current guidelines.

4.3.3 The guidelines will be developed through consultation with industry

The current administered pricing compensation guidelines are developed by the Commission in accordance with the transmission consultation procedures, set out in part H of chapter 6A of the NER. The Commission proposes that the guidelines could be reviewed and expanded in a similar manner, allowing the Commission to:

- receive submissions from stakeholders on the proposed opportunity cost guidelines
- engage with industry to develop the content of the guidelines to provide clarity and certainty regarding treatment of opportunity costs.

The Commission considers that it will be able to facilitate this process as well as contribute its experience assessing these claims.

67 Submissions to the consultation paper: EUAA, p 6; Origin, p 5; AGL, p 3.
68 AEMC, *Compensation guidelines*, 1 December 2022.

5 We are recommending a range of administrative improvements

This chapter outlines the Commission's draft recommendations regarding the administration of the three compensation frameworks.

Stakeholders generally supported a range of changes to the administration of the frameworks, which are outlined below.

5.1 Administered pricing compensation should be assessed in a more targeted manner

The Commission recommends that claims for administered pricing compensation should be assessed in a more targeted manner. This involves two key changes for assessing claims on the basis of trading intervals within an eligibility period and on an individual unit basis.

The Commission considers that these changes will improve the ability of the administered pricing compensation framework to meet its objective of maintaining the incentive to supply services. Although the Commission recognises that these changes will likely lead to higher compensation payments by consumers, the additional reliability benefits achieved by this change mean the change is in the long-term interests of consumers.

5.1.1 Claims should be assessed on a trading interval basis within an eligibility period

The Commission's draft recommendation is that administered pricing compensation is assessed on a trading interval basis within an eligibility period.

There are issues with the current approach to eligibility periods

The current approach is to assess net revenue for an entire eligibility period and our consultation paper set out the issues associated with assessing administered pricing compensation in this way.[69]

In summary, the assessment of administered pricing compensation over eligibility periods leads to the following issues:

- Unclear interactions between administered pricing and the other compensation frameworks: The Commission must take into account the value of any other sources of compensation paid to the claimant where compensation arises out of the same events. Because administered pricing compensation is assessed over an eligibility period, there can be instances where a claimant is eligible for both administered pricing compensation and directions or market suspension compensation. The NER and compensation guidelines currently suggest that in these situations, the Commission should re-assess and potentially revise earlier compensation decisions determined by a separate market body.[70]
- Perverse incentives for generators that do not support the objective of the framework: Particularly for regions that are affected by price scaling, any profit made in intervals where the price is not scaled is used to offset losses made in intervals where the price is scaled. A generator in a profitable position ahead of the prices being capped by the APC may have an incentive to withdraw to maximise overall profitability.

69 AEMC, *Review of electricity compensation frameworks,* Consultation paper, 2 November 2023, pp 32-38.

70 These issues are set out in the AEMC's determinations for administered pricing compensation claims from June 2022. For example, the final decision for Braemar Power Project Pty Ltd, pp 6-8.

Further detail on eligibility periods and price scaling are outlined in Box 3 below.

Box 3: Eligibility periods and price scaling

An eligibility period is defined as the period between the first trading interval where a price limit event occurs in a trading day, until the last trading interval of that day.*A price limit event is defined in clause 3.14.6(a)(1) to (4) of the NER, and means that either the spot price for a trading is set:

- by the APC or AFP during an administered price period, or
- as a result of "price scaling".

Price scaling is set out in clause 3.14.2(e)(2) of the NER. This clause states that if any regional reference node (RRN) is set by the APC, then spot prices at all other RRNs connected by regulated interconnector that have energy flows towards the capped RRN must not exceed the APC divided by the average loss factor that applies in the direction of energy flow. An eligibility period can therefore begin before the APC is applied in that region.

Note: *See clause NER clause 3.14.6(a).

Introducing eligibility periods has created issues

The Commission notes that the current approach to the assessment of compensation claims over an eligibility period was introduced to achieve a particular policy outcome. In the *Compensation arrangements following application of an administered price cap and administered floor price* rule change, the Commission outlined that the assessment of administered pricing compensation on a trading interval basis may have led to units cycling on and off if they become ineligible for compensation in a trading interval.[71]

The Commission considers that this policy intent remains relevant and that any changes to the assessment of administered pricing compensation should retain this feature.

The draft position will achieve the benefits of both approaches

The Commission considers that assessing compensation by trading interval within an eligibility period is the best option to address the identified issues, while maintaining the policy intent of eligibility periods. The Commission considers that creating specific carve-outs for other compensation frameworks only addresses the issue of overlapping compensation claims, and does not address the perverse incentives created by the current approach.

Stakeholders were generally supportive of this option in the consultation paper.[72]

While this approach may increase the overall quantum of compensation claims relative to the current approach of assessing compensation over an eligibility period, any increase in compensation payments by consumers needs to be considered alongside the expected reliability benefits of this change. The uncertainty created by the current approach to assessing compensation claims is likely to contribute to generators having a preference to withdraw capacity at these times. This could have a detrimental effect on system security and reliability during periods of system stress, which would not be in the long-term interests of consumers. As stated in section 1.1, the Commission considers that the long-term interests of consumers are best met by having compensation frameworks that lead to good system security and reliability outcomes.

71 AEMC, *Compensation arrangements following application of an administered price cap and administered floor price*, Final determination, 7 March 2024, p ii.

72 Submissions to the consultation paper: Alinta, p 3; AEMO, p 16; EUAA, p 4.

5.1.2 Administered pricing compensation should be assessed on an individual unit basis

The Commission's draft recommendation is that administered pricing compensation is assessed on an individual unit basis. The Commission considers that this approach best enables the administered pricing compensation framework to meet its objective, and is in the long-term interests of consumers.

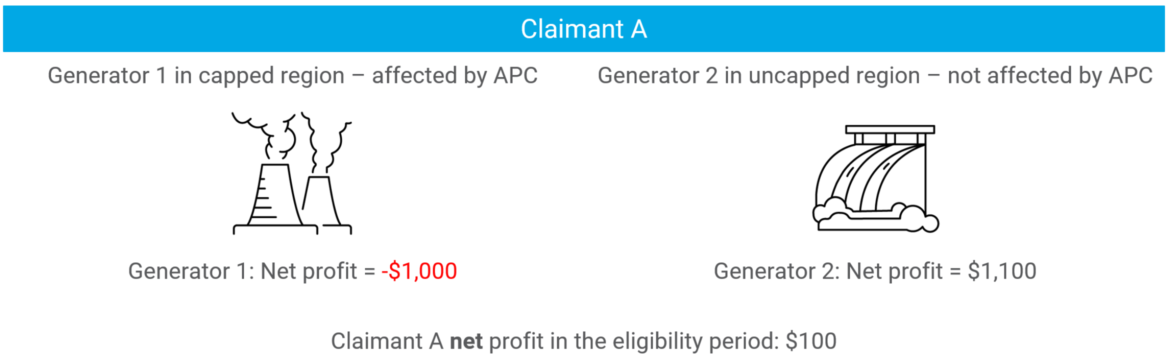
Compensation is currently assessed in aggregate across all claimed units

In its assessment of opportunity cost claims arising from June 2022, the Commission applied NER clause 3.14.6(b) and assessed compensation across all units that make up a claim.[73] For example, if a claimant submitted a claim for three of its generating units, eligibility for compensation is determined by the net costs incurred across those three units in aggregate.

This approach to assessing type of assessment of compensation claims can lead to compensation outcomes that may not support the objective of the compensation framework. This is because, like the approach of assessing compensation over an eligibility period, operation over multiple generating units can be a non-profit maximising approach in certain circumstances. Risks to reliability and security are likely to arise if generators are left worse off as a result of choosing to supply during an administered pricing period.

This issue particularly arises when in a trading interval or group of trading intervals, one region is being affected by the APC, and another region is not. The generator in the capped region where their SRMC is lower than the APC will sustain a loss. The generator in the uncapped region will make a profit if the price they are dispatched at is higher than their SRMC. Assessment of compensation eligibility across both generators leads to losses incurred by the generator in the capped region being offset by profits earned by the generator in the uncapped region. This leads to an overall lower profit outcome compared to if the generator in the capped region had not run. The Commission considers that this does not send the right signals to participants during periods of market stress.

Figure 5.1: Current approach: units are assessed in aggregate.



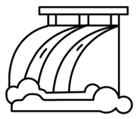
Source: AEMC
Note: The dollar figures are for example only, and reflect the total profit earned by each generator in the relevant eligibility period.

Compensation should be assessed for individual units

Assessment of compensation by individual unit would preserve the incentive to operate generators in the capped region.

73 AEMC, *Final decision - Snowy Hydro direct and opportunity cost claim*, 16 May 2024, pp 13-14.

Figure 5.2: Proposed approach: each unit is assessed separately.

Claimant A	
Generator 1 in capped region – affected by APC	Generator 2 in uncapped region – not affected by APC
	
Generator 1: Net profit = -$1,000	Generator 2: Net profit = $1,100

Claimant A compensation in eligibility period: -$1,000 (i.e. a **loss** of $1,000)

Source: AEMC
Note: The dollar figures are for example only, and reflect the total profit earned by each generator in the relevant eligibility period.

In this example, the claimant is now indifferent between operating generator 1 in the capped region, because it will not detract from overall profitability across its portfolio of units. The Commission considers that this approach is more aligned with the objective of maintaining the incentive to supply services during an administered price period.

Similar to moving to assessment by trading interval within an eligibility period, the Commission expects that this change may increase the amount of compensation payments by consumers relative to the status quo. The Commission considers that this change is also likely to have material benefits in terms of system reliability and security outcomes during an APP. The Commission's view is that the improvements to reliability and security outcomes are in the long-term interests of consumers.

Draft recommendation 8: Administered pricing compensation should be assessed by trading interval within an eligibility period rather than by net revenue in an eligibility period.

Do stakeholders agree with this approach?

Draft recommendation 9: Administered pricing compensation should be assessed on an individual unit level rather than across all units that make up a claim for compensation.

Do stakeholders agree with this approach?

5.2 There should be a time limit for submitting supporting information for an administered pricing claim

The Commission is making a draft recommendation that the administered pricing compensation process should follow the timelines set out in the intervention settlement timetable. This approach would align the timeframes across all three compensation processes, removing unnecessary complexity for stakeholders.

The Commission proposes that claimants should have 15 business days from being notified by AEMO of the automatic compensation they are entitled to receive to make a submission to AEMO for additional compensation. This would mean that claimants would have 33 business days following the end of the billing week in which a price limit event occurs to submit claims for additional compensation.

A number of stakeholders proposed that setting timeframes for administered pricing compensation claims would be important to improving confidence in the process.[74]

5.2.1 The administered pricing compensation framework does not include a time limit for claimants to submit supporting information

The administered pricing compensation framework currently does not include a time limit for claimants to submit supporting information to their claim, which would amount to an additional compensation claim. This is different from the directions and market suspension frameworks in the NER.[75]

Conversely, once AEMO has notified market participants that an APP has ended, claimants have five business days to submit notice of a claim to the Commission and AEMO.[76] Following notice of the initial claim, there is no timeline in the NER for when claimants must provide supporting information to demonstrate their claim.

As noted in our consultation paper, the absence of a clear timeframe for providing supporting information led to several issues during the assessment process for claims stemming from the June 2022 market disruptions, including:[77]

- uncertainty for the Commission about when the assessment of claims would begin, leading to resourcing uncertainty
- consequences for cost recovery, including:
  - delayed pass-through to retailers
  - interference with the liquidation of failed retailers due to requirements to hold capital for future compensation cost recovery
  - implications for the Default Market Offer and Victorian Default Offer, in estimating the amount of compensation that will need to be recovered from customers
- uncertainty about the interaction of this with other compensation processes.

5.2.2 Stakeholders support introducing a time limit for claimants to submit supporting information

In the light of these issues, the Commission considers it would be appropriate to include timeframes for providing supporting information. This is broadly supported by stakeholders, who indicated there is a need for time limits that are clearly stipulated in the NER.[78]

The timeframes for the directions and market suspension compensation processes are set out in AEMO's intervention settlement timetable,[79] which they are required to produce under NER clause 3.12.1. The current timing for claim assessment is set out in Figure 1.1, which provides 33 business days for submission of a claim for additional compensation following end of the billing week when the intervention takes place.

74 See submissions to the consultation paper: AEC, p 6; AEMO, p 16; AGL, p 5; Alinta Energy, p 3; CS Energy, p 4; Delta Electricity, p 4; Energy Australia, p 3; EUAA, p 5.

75 The timeframes for claiming additional directions and market suspension compensation are set out in clauses 3.15.7B(a) and 3.14.5B(a) respectively, and the Intervention settlement timetable provided in NER clause 3.12.1.

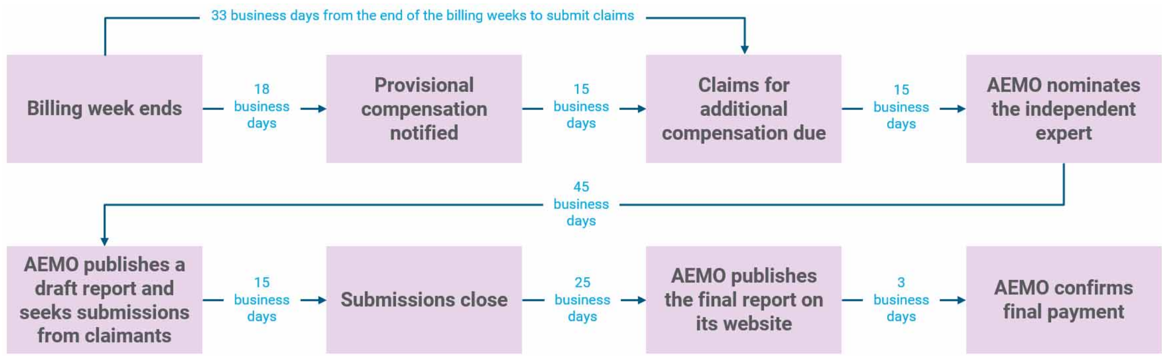
76 NER clause 3.14.6(h)-(i).

77 AEMC, Consultation paper, 2 November 2023, p 40.

78 Submissions to the consultation paper: AEC, p 6; AEMO, p 16; AER, pp 2-3; Alinta Energy, p 3; Delta Electricity, p 4; Energy Australia, p 3; EUAA, p 5.

79 See AEMO's Intervention settlement timetables.

Figure 5.3: Timeline for compensation claims in the intervention settlement timetable



Source: AEMC, informed by AEMO's Intervention settlement timetable 2024.

The Commission proposes that the administered pricing compensation framework should be aligned with the intervention settlement timetable. Claimants would have 33 business days following the end of the billing week in which a price limit event occurs to submit claims for additional compensation.

The Commission considers that alignment with AEMO's current processes is appropriate because it promotes consistency across the frameworks. The time limit proposed is aligned with the time range nominated by some stakeholders in their submissions to our consultation paper:

- The AEC suggested a period of 40 days would be appropriate.[80]
- AGL said there is utility in having timeframes, though they should be generous as APP events are significant.[81] This sentiment was shared by Origin, who submitted that timeframes for information submissions should not be unnecessarily short.[82]
- Delta Electricity considered that 10-12 weeks after the notice of claim has been submitted would be preferable.[83]
- Shell Energy recommended a period of 120 days, to account for staff resourcing during times of market stress.[84]

Further, this time limit would be appropriate as claimants who intend to make opportunity cost claims as part of their administered pricing compensation claim are likely to have a well-developed understanding of those costs as part of their day-to-day operations.

Draft recommendation 10: There should be the same time limits on all compensation claims including claims for administered pricing compensation. The time limits should be aligned with AEMO's intervention settlement timetable, which currently sets out the timeframes for directions and market suspension compensation processes.

1. Do stakeholders agree with the proposed approach for adding timeframes for the administered pricing compensation process?

80 AEC submission to the consultation paper, p 6.
81 AGL submission to the consultation paper, p 5.
82 Origin submission to the consultation paper, p 6.
83 Delta Electricity submission to the consultation paper, p 4.
84 Shell Energy submission to the consultation paper, p 6.

5.3 Definitions for direct costs should be harmonised across the frameworks

The Commission's draft recommendation is that the types of direct costs available for compensation should be harmonised across the three relevant frameworks.

Under the NER, there are currently differences between the types of costs included under the banner of direct costs across the three relevant frameworks. This is reflective of the separate development of the frameworks over time.[85]

Table 5.1: Direct costs for the three compensation frameworks under the NER

Additional directions compensation, set out in clause 3.15.7B(a3)	Additional market suspension compensation, set out in clause 3.14.5B(d) and (d1)	Administered pricing compensation, set out in the AEMC's compensation guidelines
Fuel costs in connection with the relevant generating unit	Fuel costs in connection with the relevant generating unit	Fuel costs incurred during the relevant eligibility periods
Incremental maintenance costs	Incremental maintenance costs in connection with the relevant generating unit	Operating and maintenance costs directly attributable to the pattern of operation to provide services during the relevant eligibility periods
Incremental manning costs	Incremental manning costs in connection with the relevant generating unit	Wear and tear directly attributable to the pattern of operation during the relevant trading intervals Wear and tear is distinct from operating and maintenance costs because it covers non-routine maintenance costs
Acceleration costs of maintenance work, such that the costs are incurred to enable the generating unit to provide services.	Other direct costs reasonably incurred in connection with the relevant generating unit, where such costs are incurred to enable the generating unit to supply energy or market ancillary services during the market suspension pricing period.	
Delay costs for maintenance work		
Other costs incurred in order to comply with the direction		

Source: AEMC

85 AEMC, Consultation paper, 2 November 2023, p 40.

As can be seen from table 5.1 above, the frameworks include similar costs, including:

- fuel costs
- incremental operating and maintenance costs (of numerous varieties)
- wear and tear.

However, under the NER and the Commission's Compensation guidelines, the definitions for these costs differ slightly. Each of the lists set out above include different wording or levels of detail regarding the compensable costs.

Accordingly, the Commission recommends that the NER should be amended so that there is a single list of claimable direct costs that captures the range of costs currently included across the three frameworks. This would improve consistency and reduce confusion experienced among market participants.

Stakeholders in response to our consultation paper generally supported harmonising these definitions.[86] For instance, AEMO submitted that:[87]

> ...definitions of direct costs between all three frameworks should be aligned within the Rules. This is because all three frameworks seek to provide a reasonable amount of compensation for participants that provide a service in the event the market price is not sufficient. Having alignment of the definitions for direct costs also supports having frameworks that provide clarity and are less complex so that they can be administratively efficient.

Similarly, Alinta submitted that it:[88]

> ...supports the alignment of the NEM compensation frameworks to the extent possible and by extension, the alignment of cost categorisation to ensure consistency and avoid perverse incentives during periods with overlapping claims.

The Commission recommends that the list should include:

- energy input costs incurred during the relevant eligibility periods[89]
- operating and maintenance costs directly attributable to the pattern of operation to provide services during the relevant eligibility periods, including acceleration or delay costs of maintenance work
- wear and tear directly attributable to the pattern of operation during the relevant trading intervals[90]
- other costs incurred in connection with the relevant claimant operating during the intervention.

86 Submissions to the consultation paper: AEC, p 6; AEMO, p 16; AGL, p 5; Alinta, p 3; CS Energy, p 4; Delta, p 4; EnergyAustralia, p 3; EUAA, p 5; Hydro Tasmania, p 2; Origin, p 4.

87 AEMO submission to the consultation paper, p 16.

88 Alinta submission to the consultation paper, p 3.

89 In harmonising these definitions, the Commission recommends that fuel costs is referred to as 'energy input costs' to better account for storage units. This recommendation takes into consideration EnergyAustralia's submission at p 3, which provided that the definitions ought to be broad enough to accommodate different technologies, but workable so as not to add complexity or subjectivity to claim assessments.

90 The Commission notes that wear and tear is distinct from operating and maintenance costs because it covers non-routine maintenance costs.

Draft recommendation 11: The same types of direct costs should apply to all compensation frameworks and be identified in a single list.

1. Do stakeholders agree with the proposed list put forth by the Commission?
2. Do stakeholders consider there any other definitions for direct costs that should be included in the proposed list?

5.4 The Commission has considered various issues related to cost recovery

As set out in the consultation paper, the Commission has considered three issues regarding cost recovery in the compensation processes. These are:

- improving clarity regarding cost recovery for administered pricing compensation
- consideration of cost recovery during periods of high consumer energy resources (CER) output
- cost recovery mechanism for 'capacity' directions, raised in a rule change request by Tilt Renewables.[91]

These issues are discussed below in turn.

5.4.1 Cost recovery for administered pricing compensation should be calculated on a trading interval basis from the beneficiaries of the intervention

The Commission recommends that cost recovery for administered pricing compensation should be recovered on a trading interval basis from the region where the price is being set by the APC. This aligns with the change for compensation to be calculated on the basis of trading intervals within an eligibility period. It also aligns with the policy intent of the Commission's *Compensation arrangements following application of an administered price cap and administered floor* rule change.[92]

The NER does not comprehensively set out cost recovery arrangements for administered pricing compensation

Cost recovery calculations for administered pricing compensation are governed by NER clause 3.15.10 and depend on the 'cost recovery region' (or 'home' region), being the region where the spot price was set by the APC itself.[93] This is calculated within an 'eligibility period', which is defined in the NER as "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 last trading interval of that trading day".[94]

The NER currently anticipates a single cost recovery region per eligibility period. In 2022, spot prices were set by the APC in one or more different regions in different trading intervals across each eligibility period from 13 June (when the cumulative price threshold was exceeded in all four mainland regions) until 15 June (when the market was suspended). This effectively meant that

91 AEMC, *Recovery of funds for capacity directions*, Rule change request, 23 February 2023.

92 AEMC, *Compensation arrangements following application of an administered price cap and administered floor price*, 2016.

93 NER clause 3.15.10(a0)(1)-(2).

94 NER clause 3.14.6(a).

there was more than one cost recovery region per eligibility period. The NER is not clear on how cost recovery arrangements should function in these circumstances.

In addition to this, there were trading intervals during the events of June 2022 where there was more than one "cost recovery region" per trading interval. This occurs when there is more than one region where the regional reference price is being set by the APC in a particular trading interval. The NER are similarly unclear about cost recovery in these scenarios.

There are scenarios that should be addressed for cost recovery

The Commission considers that the NER should be clarified to set out the cost recovery process in more detail. This can be achieved by:

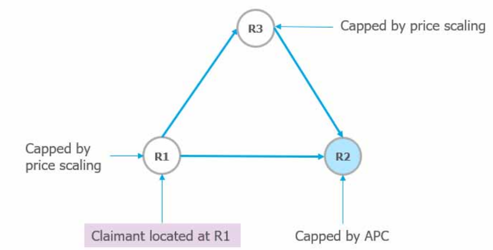
- setting out that costs are to be recovered on a trading interval basis
- specifying the approach that should be taken to cost recovery in specific scenarios.

Based on the events of June 2022, the Commission and AEMO have identified the following scenarios that should be covered by the NER regarding cost recovery for administered pricing compensation:

1. single cost recovery region
2. multiple cost recovery regions including the claimant's region
3. multiple cost recovery regions not including the claimant's region
4. multiple cost recovery regions with claimant facilities in multiple regions.

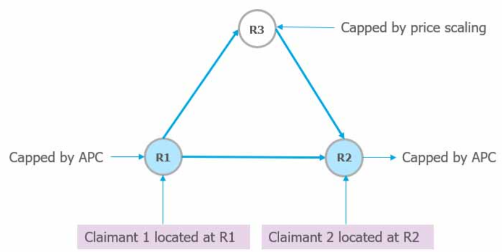
Scenario 1: Single cost recovery region

- The Claimant is located at R1.
- The price is capped by the APC in R2.
- R2 is the cost recovery region
  - All costs are recovered from R2.



Scenario 2: Multiple cost recovery regions including the claimants' region

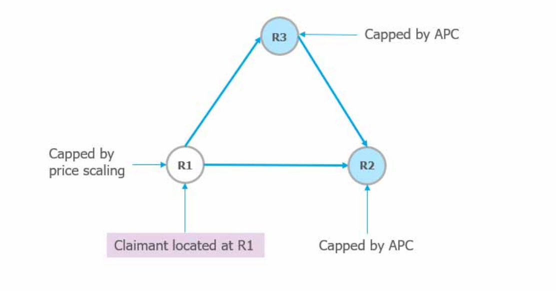
- Claimant 1 is located at R1. Claimant 2 is located at R2.
- The price is capped by the APC in R1 and R2.
- R1 and R2 are the cost recovery regions.
  - Costs for Claimant 1 are recovered from R1
  - Costs for Claimant 2 are recovered from R2



Scenario 3: Multiple cost recovery regions not including the claimant's region

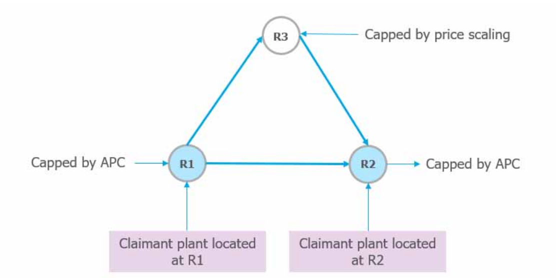
- Claimant 1 is located at R1.
- The price is capped by the APC in R2 and R3.

- R2 is the cost recovery region
  - Costs for Claimant 1 are recovered from R2 and R3 based on their proportion of total demand in the two regions.



Scenario 4: Multiple cost recovery regions with claimant facilities in multiple regions

- Claimant is located at R1 and R2.
- The price is capped by the APC in R1 and R2.
- R1 and R2 are the cost recovery regions
  - Costs for Claimant are recovered from R1 and R2 based on compensation payable to each plant in each region (if possible).



The approach to cost recovery aligns with the policy intent set out in the Commission's *Compensation arrangements following application of an administered price cap and administered floor* rule change.[95]

This approach is generally aligned with stakeholder views

AGL considered that there were benefits of clarifying cost recovery provisions.[96] The AEC commented costs should be recovered from the region that was benefiting from the intervention.[97]

The Commission considers that this proposed approach effectively aligns recovery of costs with the beneficiaries of the interventions.

Draft recommendation 12: Cost recovery for administered pricing compensation should be determined on a trading interval basis, with costs recovered from the region where the price is set by the APC.

Do stakeholders have any comments regarding this approach to cost recovery?

5.4.2 The Commission recommends no changes are made regarding cost recovery during periods of high CER output

The Commission considers that no changes should be made to the NER to account for periods of low demand due to high CER output affecting compensation payments. The *Integrating energy storage systems into the NEM* rule change, which commenced on 3 June 2024, addresses this issue.[98]

95 AEMC, *Compensation arrangements following application of an administered price cap and administered floor price,* 2016.

96 AGL submission to the consultation paper, p. 5.

97 AEC submission to the consultation paper, p 7.

98 AEMC, [Integrating energy storage systems into the NEM](), 2024.

Our consultation paper reflected issues raised by stakeholders on proportional cost recovery for directions compensation.[99] In particular, it was raised that in regions with high penetration of rooftop solar, residential consumers were not being allocated the appropriate share of compensation cost recovery. This is because compensation costs are recovered on a proportional net energy basis, and during periods of high rooftop PV output, several retailers have low or zero net consumption. This means that large loads without associated solar generation make up a large proportion of the load in a region at times and face a large proportion of the costs.

The *Integrating energy storage systems into the NEM* final determination outlined changes to the non-energy cost recovery process, which includes directions compensation. This approach changes cost recovery to be based on consumed and sent out energy, removing the effect of rooftop PV netting off consumption.[100] Because this change will address the issues raised by stakeholders, the Commission's draft position is that no further action is needed.

5.4.3 The Commission recommends that the costs associated with capacity directions should be recovered from consumers

The Commission is making a draft recommendation that compensation for directions to storage plant to consume energy for the purposes of ensuring reliability at a later point, or "capacity directions" should be recovered from customers. The Commission considers that this approach will:

- provide appropriate incentives to act in a way to contributes to overall reliability and security outcomes
- align with the principal of recovering costs from the beneficiaries of an intervention.

Capacity directions are recovered from consumers and generators

Directions for services other than energy or ancillary services are currently recovered from both customers and generators.[101] Directions for storage plant to consume energy for the purposes of ensuring reliability at a later point are classified by AEMO as directions for services other than energy or ancillary services.[102]

During the events of June 2022, AEMO made a number of these directions to maintain the power system in a reliable operating state.[103] The costs of these directions were recovered from customers and generators.

The Commission received a rule change request regarding this issue

A rule change request was submitted by Tilt Renewables (Tilt) in 2023 regarding the cost recovery process for capacity directions.[104] The rule change request seeks to correct a possible inefficient cost allocation that exists within the NER, whereby cost recovery for capacity directions is partially covered by generators.

In the rule change, Tilt proposed either:

- changing NER clause 3.15.8, being the clause that covers directions compensation cost recovery, or
- defining capacity directions as a form of energy directions for the purposes of cost recovery.

99 AEMC, Consultation paper, 2 November 2023, pp 6-7.

100 AEMC, *Integrating energy storage systems into the NEM* final determination, 2 December 2021.

101 NER clause 3.15.8(g).

102 AEMO, NEM Event Directions Report 10 to 23 June 2022 (Supplementary report), July 2023, p 6.

103 Ibid.

104 AEMC, *Recovery of funds for capacity directions*, Rule change request, 23 February 2023.

The Commission recommends that costs associated with these directions are recovered from consumers

The Commission recommends that capacity directions could be defined separately to the existing definitions of energy, ancillary services and other services for the purposes of cost recovery.

The Commission considers that the current cost recovery approach may create perverse incentives for generators at times when these directions are in place. Given that costs are currently allocated based on the proportion of energy contributed to total demand, generators may face an incentive to reduce output during periods when these directions are in place. This would reduce their liability for compensation payments. The Commission considers this could contribute to poor reliability and security outcomes during these periods.

The Commission considers that consumers are the beneficiaries of directions of this nature because they are made to keep the system in a reliable operating state. As is the case with other elements of the compensation frameworks, the Commission considers that the costs of an intervention should be recovered from the beneficiaries of the intervention.

For these reasons, the Commission recommends that the costs associated with capacity directions should be recovered from consumers only. While this change could lead to some higher costs for consumers, it is likely to not be material due to:

- the low frequency of these types of directions
- the relatively low cost arising from these directions in winter 2022.

The Commission considers that the costs to consumers are unlikely to outweigh the benefits of improved reliability outcomes.

Draft recommendation 13: Costs of capacity directions should be recovered from consumers only.

Do stakeholders agree with this approach to cost recovery?

5.5 Guidance on the standard of evidence to be included in a supporting claim

The Commission recommends that the same standards for supporting information should be applied across all compensation frameworks.

As noted in our consultation paper, when assessing the claims from June 2022, the Commission significantly engaged with claimants so that they could provide further information in support of claims being made. Having this information earlier in the process would likely reduce the time taken to process any future claims.[105]

Under the Compensation guidelines, the standard of information provided for claims from the June event included:[106]

- fuel supply contracts or evidence of transactions for fuel
- relevant sections of maintenance plans or technical documents regarding maintenance and start-up costs

105 AEMC consultation paper, 2 November 2023, p 43.

106 AEMC, Compensation guidelines, 1 December 2022.

- evidence to justify technical or commercial limitations for opportunity cost claims.

The guidelines also specify that "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."[107]

The Commission notes that the NER requires participants to submit information to substantiate claims for additional directions compensation as well as additional market suspension compensation.[108] Whether these claims are assessed by AEMO or the Commission, it is recommended that the administered pricing compensation framework be aligned with the directions and market suspension frameworks, so that parties have a clear understanding on the level of evidence required to support a claim for compensation.

The Commission considers there may also be value in providing more specificity regarding the level of authority required to sign off that the information provided is true and correct. It may be appropriate to require signature of a high level of authority within a claimant's business, such as the chief executive officer or chief financial officer.

The Commission therefore recommends that the standard of information set out in the NER for directions and market suspension compensation is applied to the administered pricing compensation process.

Draft recommendation 14: The same standards of supporting information should be required across all compensation frameworks.

Do stakeholders have a view on the standard that should be applied to supporting information?

Do stakeholders have views on the level of seniority that should be required to sign off on claims for additional compensation?

5.6 Clarification of arrangements for administered pricing during market suspension periods

The Commission is not proposing to allow claims relating to administered pricing during a market suspension period. The Commission considers the need for this change is reduced given other changes proposed in this draft report, including:

- allowing participants to claim opportunity costs during market suspension periods
- having all claims for compensation submitted to AEMO
- existing examples of how the NER operates during these periods.

With these changes in place, the Commission considers there would be no benefit to allowing administered pricing compensation to be claimed during market suspension periods.

5.6.1 A number of stakeholders identified this as an issue

Some stakeholders identified that there is a lack of clarity in the NER about whether administered pricing compensation can be claimed during market suspension periods.[109] This lack of clarity

107 Ibid.

108 NER clauses 3.15.7B(b) and 3.14.5B(c), respectively.

109 Submissions to the consultation paper: Shell, p 6; Hydro Tasmania, p 2.

may have contributed to uncertainty regarding compensation claims during the events of June 2022.

The Commission has set out the workings of the NER in determinations on compensation claims.[110] Given this was the first time that an overlapping administered pricing period and market suspension period had occurred in the NEM, this interaction had not previously been implemented. The Commission acknowledges this may have created confusion at the time.

5.6.2 Other changes in this review address the underlying issues

The Commission considers that three key changes, either in this review of following the events of June 2022, mean that this issue is unlikely to eventuate in the future.

We will allow participants to claim opportunity costs during market suspension periods

Currently, consideration of opportunity costs is not included in additional claims for market suspension compensation. Claimants may therefore prefer having the ability to seek administered pricing compensation if presented with the choice between it and market suspension compensation. The Commission considers that its draft recommendation to include consideration of opportunity costs in the market suspension compensation framework removes this inconsistency.

All claims for compensation will be submitted to AEMO

Another key issue that may have created confusion due to overlapping compensation claims, is that claimants had to submit claims for administered pricing compensation and market suspension compensation to different bodies. Hydro Tasmania specifically noted that having consistency of communication would greatly improve trust and confidence in the compensation processes.[111]

The Commission's draft recommendation is that all claims should be submitted to AEMO. The Commission considers this will help to reduce the possibility of confusion for claimants in the process of making compensation claims. All communication regarding the submission of a claim can occur between AEMO and the claimant, simplifying the process and improving confidence.

The AEMC's compensation determinations provide further guidance on applying the framework

The Commission notes that prior to the events of June 2022, the interaction between administered pricing periods and market suspension periods had not been borne out. Therefore, there was little practical experience of how these areas of the NER functioned. Following the claims process, the Commission considers there are examples of how this interaction will work in the future. The determinations are publicly available and should provide participants with clarity about how these arrangements will function in future events.

110 AEMC, *Compensation claim for direct costs* final decision, 23 March 2023.

111 Hydro Tasmania submission to the consultation paper, p 2.

6 The recommendations would contribute to the energy objectives

This chapter explains how the draft recommendations meet the national electricity objective (NEO) and contribute to achieving outcomes that are in the long-term interests of consumers.

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

In conducting reviews, the Commission must have regard to the relevant energy objectives.[112]

For this review, the relevant energy objective is the NEO:[113]

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

The targets statement, available on the AEMC website, lists the emissions reduction targets to be considered, as a minimum, in having regard to the NEO.[114]

6.2 How we have applied the national electricity objective to our recommendations

The Commission used an assessment framework to determine whether our draft recommendations promote the long-term interests of consumers. The assessment framework was generally supported by stakeholders and includes the following criteria:

- **Principles of market efficiency**: To ensure good reliability and security outcomes for consumers, the compensation frameworks need to set the correct incentives for participant behaviour during periods of market stress. By avoiding the reliance on intervention during periods of market stress, the compensation frameworks should enable the market to function normally and promote the reliable, secure and safe provision of energy at an efficient cost to consumers.
- **Implementation considerations**: The compensation frameworks should be designed such that the processes can function smoothly and in a timely manner. The Commission considers that participant interaction with the frameworks is important to consider, as unnecessary complexities can slow processes and reduce confidence in the frameworks, therefore increasing the risk of unsatisfactory reliability and security outcomes.

112 Section 32 of the NEL.

113 Section 7 of the NEL.

114 Section 32A(5) of the NEL.

- **Principles of good regulatory practice**: The compensation frameworks should be designed to promote predictability and transparency for all stakeholders.

Our reasons for choosing these criteria are set out in section 3.2 of the consultation paper.[115]

The Commission has undertaken regulatory impact analysis to evaluate the impacts of the various policy options against the assessment criteria. Appendix A outlines the methodology of the regulatory impact analysis.

6.3 Our draft recommendations contribute to the NEO

This section explains the benefits of the proposed changes and why the draft recommendations promote the NEO when assessed against the criteria. Given the history of the development of the frameworks, the current state of the compensation frameworks has a number of inconsistencies that lead to poor outcomes when the frameworks are used. The draft recommendations in the report are likely to improve the incentives faced by participants during periods of market stress and provide greater confidence in the application of the frameworks. Overall, the Commission considers these will lead to improved reliability and security outcomes for consumers.

The draft recommendations aim to provide the correct incentives to participants

- Clarifying the objectives of the frameworks provides clarity regarding the intended outcomes of each of the compensation frameworks.
- Compensating participants for opportunity costs in all frameworks, and the development of guidelines by the AEMC, provides claimants with confidence that they will not be adversely affected by interventions.
- Proposed changes to the upfront directions compensation payment should make this framework resilient to future changes and address previous stakeholder feedback.
- Addressing issues with the calculation of administered pricing compensation claims will remove perverse incentives and improve participation during these events.

The draft recommendations address several implementation issues that will create greater confidence in the compensation frameworks

- Harmonising definitions between compensation claims and aligning timeframes will address existing implementation concerns. These changes will improve confidence in the compensation frameworks.
- Alignment of governance arrangements will simplify participant interaction with the compensation framework and reduce the administrative burden of assessing compensation claims.

The draft recommendations promote predictability and transparency

- Clarification of cost recovery arrangements for compensation claims will provide greater predictability for relevant stakeholders.

115 AEMC, *Review into electricity compensation frameworks*, consultation paper, 2 November 2023.

A Regulatory impact analysis

The Commission has carried out regulatory impact analysis to make its draft recommendations.

A.1 Our regulatory impact analysis methodology

Our regulatory impact analysis has been informed by stakeholder submissions to the consultation paper in addition to other information and data. The Commission designed and developed its recommendations with the aim of improving the operation of the compensation frameworks.

If implemented, the draft recommendations would:

- Improve the functioning of the compensation frameworks during periods of market stress, resulting in better security and reliability outcomes.
- Reduce the uncertainty and administrative burden of engaging with the compensation frameworks, promoting confidence for all stakeholders.
- Enable faster resolution of compensation claims to increase confidence in the frameworks.

The Commission notes that, particularly for administered pricing compensation, some proposed changes are likely to increase the quantum of compensation payments made by consumers in future events. This is because the current arrangements may under compensate participants such that participation during an administered pricing period may lead to them being worse off in certain circumstances.

In the Commission's view the best interests of consumers are primarily met by having compensation frameworks that result in good reliability and security outcomes. This is achieved by making sure there are the right incentives in place for participants to respond in times of market stress, which includes having certainty that appropriate level of costs will be recovered.

B Summary of other issues raised in submissions

Table B.1: Summary of other issues raised in submissions

Stakeholder(s)	Issue	Response
Shell	Issues with the fast-start inflexibility profile	The Commission acknowledges that there were several factors that contributed to the events of June 2022. However, this issue is out of scope of this Review.
AEMO	Provision of “goodwill” payment in directions compensation	The Commission does not consider this to be appropriate, particularly given the changes in ISF enabling generators to enter formal procurement processes to value provision of services.
AEMO	Consideration of separate payment for start-up costs	The Commission has previously excluded start-up costs from payments of upfront directions compensation on the basis of complexity, wide-ranging values of calculation and concerns regarding incentives to seek a direction. The Commission does not consider this inclusion is necessary.
EUAA	Generators paying for compensation	The Commission generally considers that the cost recovery processes for the compensation frameworks are appropriate and should be aligned with the primary beneficiary of the intervention, which in the case of these frameworks is generally consumers. The Commission acknowledges that consumers may not be able to manage market risks associated with interventions. The introduction of the ISF rule change aims to provide further market and procurement mechanisms to reduce the current reliance on interventions to manage system security. The Commission considers that this is likely to reduce overall costs to consumers. Finally, the Commission considers that having generators fund compensation payments may lead to perverse incentives during periods when interventions are being used. As discussed in Chapter 6.4.3, payments recovered from generators may create an incentive on the margin to reduce exposure to these costs, which may compromise reliability and security outcomes during interventions.
AGL	Compensation should include costs of engineering studies where a generator is subject to frequent directions.	The AEMC expects that the introduction of the ISF rule change will reduce the occurrence of directions. The Commission expects that instances of repeated and consistent directions are unlikely to continue in the future.

Abbreviations and defined terms

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AEC	Australian Energy Council
AER	Australian Energy Regulator
APC	Administered price cap
APP	Administered price period
CER	Consumer energy resources
Commission	See AEMC
EUAA	Energy Users Association of Australia
FCAS	Frequency control ancillary services
LOR	Lack of reserve
MSPS	Market suspension pricing schedule
NECA	National Electricity Code Administrator
NEM	National electricity market
NEMMCO	National Electricity Market Management Company
NEL	National Electricity Law
NEO	National Electricity Objective
NER	National Electricity Rules
SRMC	Short-run marginal cost
VWAP	Volume-weighted average price