AUSTRALIAN ENERGY MARKET COMMISSION

Consultation paper

Draft Opportunity Cost Methodologies

Proponents

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EnergyAustralia Ecogen Pty Ltd
Origin Energy Electricity Limited

27 June 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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To cite this document, please use the following:
AEMC, Draft Opportunity Cost Methodologies, Consultation paper, 27 June 2024

Summary

1 The National Electricity Rules (NER) under clause 3.14.6 and the Australian Energy Market Commission (AEMC or the Commission) compensation guidelines (Guidelines) set out a process for market participants to claim compensation for certain losses during an administered price period (APP) where the administered price cap (APC) or administered floor price is applied.

2 These arrangements are designed to protect market participants from losses during a price limit event to maintain the incentive for them to continue to supply or consume energy or services. In this way, administered pricing compensation supports a reliable supply of electricity to customers during price limit events.

3 This consultation paper relates to the following claims for administered pricing compensation, which each relate to the June 2022 APP:

- EnergyAustralia Pty Ltd (EnergyAustralia) has made a compensation claim for opportunity costs only in respect of its coal-fired power station Mt Piper in NSW.
- EnergyAustralia Ecogen Pty Ltd (EA Ecogen) has made a compensation claim for direct costs and opportunity costs in respect of its Newport and Jeeralang gas-fired power stations.
- Origin Energy Electricity Limited (Origin) has made a compensation claim for opportunity costs only in respect of its Uranquinty, Quarantine and Mortlake gas-fired power stations.

4 The Commission recognises the efforts of each of the claimants in continuing to supply energy during the APP in June 2022, thereby supporting the continued functioning of the energy market.

5 The Commission is required under clause 3.14.6(o) of the NER to publish claimants' proposed methodologies for valuing the claimants' opportunity costs, the valuation methodology for each claimant we propose to use in assessing their claims for compensation for opportunity costs (draft opportunity cost methodologies), and to invite written submissions from the public. This consultation paper is published for that purpose. Public consultation does not occur for direct costs only claims.

6 The views expressed in this consultation paper represent the Commission's current view as to the methodologies it proposes to use in determining the claimants' opportunity costs. The Commission has also set out its preliminary views on other aspects of each of the claims including whether a technical or commercial limitation has been evidenced and on the question of whether a valid alternative opportunity has been identified. Those views may change following the receipt and consideration of stakeholder submissions and further information or submissions provided by the claimants.

7 The purpose of this document is not to, and the Commission does not, express any concluded view on any other aspects of EnergyAustralia, EA Ecogen or Origin's claims for compensation.

8 Prior to making a final decision (under clause 3.14.6(q) of the NER) on the methodology to be used in determining the claimants' opportunity costs, whether compensation should be paid to the claimants and, if so, the amount of compensation that should be paid, the Commission will:

- have regard to any written submissions made in response to this consultation paper under clause 3.14.6(p) of the NER; and
- consult with the claimant as required under clause 3.14.6 (r) (including by way of the provision of a draft decision for comment).

Claimants must demonstrate a relevant limitation

9 In accordance with the NER and the Guidelines, to make a claim for compensation for opportunity costs, a claimant must demonstrate that its plant has scarce capacity or resources because of a technical or commercial limitation that applied over the relevant period during a price limit event.

Claimants must demonstrate the foreclosure of an alternative opportunity during a price limit event

10 The Guidelines define opportunity cost as:

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

11 Specifically, the counterfactual 'should be based on what would have occurred in the market had the claimant's behaviour changed and it had chosen the more profitable alternative opportunity.' This should be a real opportunity that the claimant could have pursued, and not a hypothetical opportunity. The NER require that the opportunity be forgone 'due to the price limit event'.

12 Claimants must identify their chosen method of valuing the more profitable alternative opportunity in accordance with the approach outline in section 5 of the Guidelines and, in particular, having regard to the hierarchy of principles set out in section 5.3.4 of the Guidelines.

13 In relation to claims for opportunity costs compensation from scheduled generators, the calculation of the value of a claimant's opportunity costs will usually consist of the revenue earned from the alternative opportunity less the cost of pursuing the alternative opportunity, where the revenue reflects a *quantity* component and a *price* component:

- The *quantity* component constitutes the quantum of the product (generation or resource) that was used by the claimant in supplying electricity to the National Electricity Market (NEM) during the APP that is above what it would have preferred to supply during the application of the APC.
- The *price* component is the price at which that quantum of product (generation or resource) is valued for the purposes of valuing the forgone opportunity.

14 The proper application of the opportunity cost compensation framework also requires that any profit earned during the eligibility period (during the APP) should be deducted from the forgone profit associated with the alternative opportunity. This is to ensure that the claimant does not receive profit from using the resource in the eligibility period as well as the profit from the relevant period.

Review of EnergyAustralia's claim for opportunity costs

EnergyAustralia's claimed limitation

15 EnergyAustralia claims a technical limitation applied during the APP due to a lack of viable coal sources and low coal deliveries. To demonstrate its technical limitation, EnergyAustralia provided the Commission with data on its coal stockpile levels for the 2022 calendar year.

16 The Commission is not satisfied, based on the evidence provided to date, that EnergyAustralia's claimed coal shortfall during the APP gives rise to a relevant limitation. The Commission's analysis of EnergyAustralia's data suggests that EnergyAustralia did not participate in the market

in a manner that was consistent with being technically limited.

EnergyAustralia's claimed forgone opportunity to use the constrained resource more profitably

17 EnergyAustralia claims that it experienced a forgone opportunity to use the constrained resource more profitably based on the prices that would have applied in the electricity wholesale market if not for the imposition of the APC in Queensland. During the relevant period, there were trading intervals where the regional reference price (RRP) in New South Wales was set by referred pricing from Queensland under rule 3.14.2(e)(2). EnergyAustralia claims it faced a forgone opportunity as the NSW RRP was less than the price calculated by the National Electricity Market Dispatch Engine (NEMDE) that would have otherwise applied.

18 EnergyAustralia's preferred alternative opportunity based on the value of dispatch offer prices not received is hypothetical in nature and not an alternative opportunity to use a constrained resource more profitably at the same or later time that was available to EnergyAustralia.

19 As the Commission does not consider EnergyAustralia has outlined a valid alternative opportunity within the meaning set out in the Rules and Guidelines, it has not proposed a methodology for valuing EnergyAustralia's claim.

Review of EA Ecogen's claim for opportunity costs

EA Ecogen's claimed limitation

20 EA Ecogen claims it faced a combination of technical and commercial limitations. The technical limitation is claimed to be a shortage of gas, as indicated by gas storage levels that had been depleted to a level threatening supply for the forecast winter usage requirements. The commercial limitation is claimed to be the high price incurred by EA Ecogen to replenish its gas in storage for winter. EA Ecogen claims that the constraint was largely technical in nature. To demonstrate its technical limitation, EnergyAustralia provided the Commission with its 2022 business plan for forecast gas usage, supply contracts and nominations during the APP, and communication with the Australian Energy Market Operator (AEMO) in line with rule 4.8.1 of the NER regarding fuel restrictions for its gas-fired power generator assets.

21 The Commission accepts that at the time of the APP there was limited supply of wholesale gas. In the context of scarce gas resources, EA Ecogen faced a commercial incentive to supply into the Victorian Declared Wholesale Gas Market (DWGM) rather than the NEM during the APP due to a price difference between these two markets.

22 Specifically, it would likely have been more profitable for EA Ecogen to use its latent storage capacity to store gas and sell it into the DWGM at a later point in time, rather than use these resources to dispatch into the NEM with the APC in place. A commercial incentive to sell the resource in another market due to price differences between markets is an example of a commercial limitation specifically set out in section 5.3.3 of the Guidelines.[1]

EA Ecogen's claimed forgone opportunity to use the constrained resource more profitably

23 EA Ecogen claims the loss of an opportunity to store gas purchased from the spot market and later sell it into the DWGM at the APC of $40/GJ, thereby making a higher profit, instead of using it to generate electricity during the APP.

24 The Commission considers that the forgone opportunity represents an alternative opportunity to

1 Section 5.3.3 sub-point 3 of the Guidelines.

use scarce capacity or resources more profitably at the same point in time or at a later point in time. However, the Commission is seeking further information from EA Ecogen to evidence its claimed forgone opportunity and confirm whether the actions required to take advantage of the forgone opportunity were available to EA Ecogen. Specifically, the Commission is seeking evidence on whether EA Ecogen's gas trading systems and governance arrangements would have enabled or permitted it to take advantage of such an opportunity. The Commission is also seeking information as to whether the opportunity is consistent with EA Ecogen's historical market behaviour.

EA Ecogen's proposed methodology for valuing its claimed opportunity costs

25 EA Ecogen's proposed valuation methodology for determining its claimed opportunity costs is a market-based valuation of this forgone opportunity within the meaning of section 5.3.4 of the Guidelines.

26 In relation to the *quantity* component, EA Ecogen has proposed to use the actual gas consumption required to dispatch energy into the NEM during its claim period.

27 In relation to the *price* component, EA Ecogen has proposed to use the APC in the DWGM of $40/GJ, less the costs associated with using the gas in this alternative opportunity, including the purchase cost for gas and the charges EA Ecogen would ordinarily incur when withdrawing gas for storage in Iona and then injecting into the DWGM.

28 The Commission notes that EA Ecogen has claimed both the direct and opportunity costs for the generating units that are the subject of the opportunity cost component of the claim, and that EA Ecogen has deducted the direct cost of pursuing the opportunity from the expected revenue that it would have received from the alternative opportunity. Deducting the direct costs (i.e., gas purchase costs) is consistent with the Guidelines, which require the Commission to value the forgone profit from the alternative opportunity.

29 The Commission has therefore accepted the methodology for valuing opportunity costs proposed by the claimant. Those views may change following the receipt and consideration of stakeholder submissions and further information or submissions provided by the claimant.

Review of Origin's claim for opportunity costs

Origin's claimed limitation

30 Origin claims it faced a commercial limitation. Origin claims it was unable to respond to price signals to sell gas at higher prices in an alternative market, the DWGM, during or after the APP, owing to directions from AEMO. To demonstrate its commercial limitation, Origin provided the Commission with market data outlining the spot price clearing levels in the DWGM during the APP, and AEMO direction notices directing the relevant generating units to make capacity available for dispatch during the APP.

31 The Commission accepts that there was scarcity in the wholesale gas market at the time of the APP and that Origin faced a commercial incentive to supply into the DWGM rather than the NEM due to a price difference between these two markets. A commercial incentive to sell the gas in another market due to price differences between markets is an example of a commercial limitation specifically set out in section 5.3.3 of the Guidelines.[2] The Commission accepts that the imposition of the price cap and the application of the AEMO direction notices may also have presented a limitation on Origin's ability to sell gas into the DWGM at the time of the APP or in a

2 Section 5.3.3 sub-point 3 of the Guidelines.

future period.

Origin's claimed forgone opportunity to use the constrained resource more profitably

32 Origin claims it faced a forgone opportunity to use its gas resources more profitably during the price limit event. Specifically, Origin claims using its gas as fuel for its gas-powered generators during the price limit event was less profitable than selling the gas into an alternative market, the DWGM, in the same or future period.

33 The Commission considers that the forgone opportunity claimed represents an alternative opportunity to use scarce capacity or resources more profitably at the same point in time or at a later point in time. However, the Commission is seeking further evidence from Origin on whether the actions required to take advantage of the forgone opportunity would have been available to it. Specifically, the Commission is seeking further information from Origin on whether its contracts and gas trading systems and governance arrangements would have enabled or permitted it to take advantage of such an opportunity. The Commission also intends to seek further information from Origin as to whether the opportunity is consistent with its historical market behaviour.

Origin's proposed methodology for valuing its claimed opportunity costs

34 Origin's proposed valuation methodology for determining its claimed opportunity costs is a market-based valuation of this forgone opportunity within the meaning of section 5.3.4 of the Guidelines.

35 In relation to the *quantity* component, Origin has proposed to use the total gas consumption attributable to affected units.

36 In relation to the *price* component, Origin has proposed to value the price component at the spot price in the DWGM that applied over the period, being the APC in that market of $40/GJ. Origin outlines that spot prices cleared in the DWGM at $40/GJ for an extended period after the APP.

37 As noted above, the Commission is required to value the forgone value or profit from the alternative opportunity. This requires the Commission to deduct the direct costs of taking the alternative opportunity from the revenues provided by the alternative opportunity. Origin has not deducted these costs under its valuation methodology. The Commission therefore proposes to amend Origin's proposed valuation methodology to include the deduction of costs relating to the storage and transportation of gas in taking advantage of the alternative opportunity. The Commission is seeking information from Origin to understand the nature and level of these costs. In addition, the Commission will also be seeking information from Origin to understand the costs it incurred during the eligibility period for the claim.

Full list of consultation questions

Question 1: Do stakeholders agree with the Commission's preliminary view that EnergyAustralia did not have a technical limitation that applied during the APP? If not, please provide reasons that an alternative view may be supported.

Question 2: Do stakeholders agree with the Commission's preliminary view that EnergyAustralia has not identified a valid alternative opportunity within the meaning of the Rules and the Guidelines? If not, please provide reasons that an alternative view may be supported.

Question 3: Do stakeholders agree with the Commission's preliminary view that EA Ecogen had a relevant commercial limitation that applied during the APP? If not, please explain your reasons why an alternative view may be supported.

Question 4: Do stakeholders agree with the Commission's preliminary view that EA Ecogen faced the foreclosure of an alternative opportunity to use its constrained gas resources more profitably at the same or later time during the imposition of the price cap? Do stakeholders consider that EA Ecogen had the ability and capacity to avail itself of the claimed alternative opportunity? If not, please explain your reasons.

Question 5: Do stakeholders agree with the Commission's proposed methodology to value EA Ecogen's claimed opportunity costs? Do stakeholders consider that $40/GJ is a reasonable volume weighted average price for gas to be applied in valuing the claimed alternative opportunity? If not, please explain your reasons.

Question 6: Do stakeholders agree with the Commission's preliminary view that Origin had a commercial limitation that applied during the APP? If not, please provide reasons that an alternative view may be supported.

Question 7: Do stakeholders agree with the Commission's preliminary view that Origin faced the foreclosure of an alternative opportunity to use its constrained gas resources more profitably at the same or later time during the imposition of the price cap? Do stakeholders consider that Origin had the ability and capacity to avail itself of the claimed alternative opportunity? If not, please explain your reasons.

Question 8: Do stakeholders agree with the Commission's proposed methodology to value Origin's claimed opportunity costs? Do stakeholders consider that $40/GJ is a reasonable volume weighted average price for gas to be applied in valuing the claimed alternative opportunity? If not, please explain your reasons.

How to make a submission

We are seeking stakeholder feedback on the EnergyAustralia, EA Ecogen and Origin claims by 25 July 2024. You may make submissions related to EnergyAustralia, EA Ecogen, Origin, or any combination of the three. You may make submissions on the specific questions set out in this consultation paper, or any other aspect of the Commission's draft opportunity cost methodologies.

Stakeholder input on the draft opportunity cost methodologies will further inform our analysis of EnergyAustralia, EA Ecogen and Origin's claims and will be considered in our final decisions.

How to make a written submission

Due date: Written submissions responding to this consultation paper must be lodged with Commission by **25 July 2024**.

How to make a submission: Please email a pdf version of your submission to submissions@aemc.gov.au and reference the project code **CRP0128**.

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).[3]

We encourage you to make a submission

Stakeholders can help shape the solutions by participating in the rule change process. Engaging with stakeholders helps us understand the potential impacts of our decisions and, in so doing, contributes to well-informed, high quality decisions.

We have included questions in each chapter to guide feedback, and the full list of questions is above. However, you are welcome to provide feedback on any additional matters that may assist the Commission in making its decision.

For more information, you can contact us

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

Project leader:	Mark Feather
Email:	Mark.Feather@aemc.gov.au
Telephone:	02 8296 7800

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

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1 Introduction

1.1 What is administered pricing?

Sustained periods of abnormally high wholesale energy prices carry the potential to threaten the commercial viability of market participants, including energy retailers, and therefore the availability of energy for households and businesses. To manage this risk, at times when wholesale energy prices remain high for a sustained period, prices are temporarily 'capped' at a predetermined level (the Administered Price Cap (APC)).[4]

Application of the APC shields customers from abnormally high energy prices, thereby providing for the continued functioning of the energy market.

1.2 What is the administered pricing compensation scheme?

The National Electricity Rules (NER) under clause 3.14.6 and the Australian Energy Market Commission (AEMC, or the Commission) compensation guidelines (Guidelines, 21 October 2021)[5] set out a process for market participants to claim compensation for certain losses during an administered price period (APP) where the APC or administered floor price is applied.

The administered pricing compensation framework is designed to protect participants such as generators, scheduled network service providers, scheduled loads, ancillary service providers and demand response service providers from losses during a price limit event to maintain the incentive for them to continue to supply (or consume) energy or services (as the case may be).

Further information on the background, context and purpose of administered pricing compensation is included in **Appendix A**. Information on the Commission's role and process for administered pricing compensation is included in **Appendix B**.

For further information on administered pricing compensation claims, see here https://www.aemc.gov.au/our-work/apc-claims.

1.3 Market events in June 2022

On 12 June 2022, the cumulative price threshold (CPT) was exceeded for the Queensland region and the APC of $300/MWh was applied under clause 3.14.2(d1) of the NER from 6:55pm on that day. Price scaling applied to the other mainland National Electricity Market (NEM) regions when energy was flowing towards Queensland. On 13 June 2022, the CPT was exceeded in the NSW, Victoria and South Australia regions (from 6:35pm in NSW, 10:00pm in South Australia and 10:05pm in Victoria). The APC of $300/MWh was therefore also applied in each mainland NEM region at these times.

After the application of the APC, several generators re-offered their energy volumes to the market, significantly reducing the generation capacity available for dispatch. Generators that maintained their supply to the NEM during this time supported the continued operation of the market, and the Commission recognises the efforts these generators made in light of the uncertainty they faced at the time.

Ultimately, reductions in the amount of generation offered into the market resulted in a requirement for the Australian Energy Market Operator (AEMO) to intervene to maintain system reliability. At 2:05pm on 15 June 2022, AEMO determined it was necessary to suspend the spot

4 Clause 3.14.2 of the NER.

5 AEMC, Compensation guidelines, Final guidelines, 21 October 2021. https://www.aemc.gov.au/sites/default/files/documents/final_amended_compensation_guidelines.pdf

market in all regions of the NEM under clause 3.14.3 of the NER. During this period of market suspension, spot prices were set in accordance with the market suspension pricing schedule published by AEMO. On 22 June 2022, AEMO released its criteria and process for lifting market suspension.

Administered price periods officially ended when the CPT was no longer exceeded. In South Australia, this occurred on 22 June 2022. In New South Wales, Queensland and Victoria, this occurred on 23 June 2022. Normal dispatch pricing resumed on 23 June 2022. The market suspension was formally lifted by AEMO in all regions from 2:00pm on 24 June 2022.

1.4 This consultation paper

This consultation paper relates to the following claims for administered pricing compensation:

- EnergyAustralia Pty Ltd (EnergyAustralia) has made a compensation claim for opportunity costs only in respect of its Mt Piper power station (Chapter 3).
- EnergyAustralia Ecogen Pty Ltd (EA Ecogen) has made a compensation claim for direct costs and opportunity costs in respect of its Newport and Jeeralang power stations (Chapter 4).
- Origin Energy Electricity Limited (Origin) has made a compensation claim for opportunity costs only in respect of its Uranquinty, Quarantine and Mortlake power stations (Chapter 5).

The Commission is required under clause 3.14.6(o) of the NER to publish claimants' proposed methodologies for valuing the claimants' opportunity costs, the valuation methodology for each claimant we propose to use in assessing their claims for compensation for opportunity costs (draft opportunity cost methodologies), and to invite written submissions from the public. This consultation paper is published for that purpose. Public consultation does not occur for direct costs only claims.

The views expressed in this consultation paper represent the Commission's current view as to the methodologies it proposes to use in determining the claimants' opportunity costs. The Commission has also set out its preliminary views on other aspects of each of the claims including whether a technical or commercial limitation has been evidenced and on the question of whether a valid alternative opportunity has been identified. Those views may change following the receipt and consideration of stakeholder submissions and further information or submissions provided by the claimants.

This paper notes the elements of the claims where the Commission is seeking further information and evidence from the claimants. The Commission will be approaching the claimants separately to obtain this information within the same time frame in which responses are sought to this consultation paper.

2 How the Commission assesses opportunity costs

In assessing claims for compensation for opportunity costs, the Commission must have regard to:

- its functions under clause 3.14.6 of the NER
- the Guidelines
- its powers under the National Electricity Law
- the information and documents provided by the claimant to support its claim (including any further information and documents provided in consultation with the claimant pursuant to clause 3.14.6(q) of the NER)
- the information provided by AEMO in accordance with the Guidelines
- written submissions in response to this consultation paper pursuant to clause 3.14.6(s)(1) of the NER.

As set out in the Guidelines, when performing its functions under clause 3.14.6 of the NER, the Commission is required to take all reasonable measures to protect from unauthorised use or disclosure information given to it in confidence.[6]

2.1 About the Guidelines

The Commission must apply the Guidelines unless it is satisfied that there are compelling reasons not to do so.[7] The Guidelines set out a definition of opportunity cost (for the purposes of clauses 3.14.6(a) and (e)(1) of the NER) and the methodology for calculating compensation for both direct and opportunity costs. In particular, the Guidelines set out, in section 5.3.4, a hierarchy of principles to be followed in choosing a method for valuing opportunity cost.

The version of the Guidelines published in October 2021 applies to the claims from June 2022 being assessed in this consultation paper and all references to the Guidelines in this consultation paper are references to the October 2021 version. The Guidelines were updated on 1 December 2022 as a result of the making of the National Electricity Amendment (Amending the administered price cap) Rule 2022.

2.2 Making a claim for opportunity costs compensation

Under clause 3.14.6(e)(1) of the NER, the types of opportunity costs that can be claimed are defined in the Guidelines. The Guidelines (pp. 12-13) define opportunity cost as:

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

Opportunity costs only arise where capacity or resources are scarce. Resource constraints that apply during the price limit event, as defined in the Guidelines, may impact the ability to generate or to meet financial obligations either during or following the price limit event.

In accordance with the NER and the Guidelines, to make a claim for compensation for opportunity costs, claimants must demonstrate the following:

6 Section 24, Australian Energy Market Commission Establishment Act 2004. Section 31 of the National Electricity Law.

7 Clause 3.14.6(s)(2) of the NER.

1. the claimant's total costs exceed its total revenue from the spot market (i.e., incur a net loss) over an entire eligibility period[8]
2. the claimant's plant has scarce capacity or resources because of a technical or commercial limitation that applied over the relevant period during a price limit event[9]
3. the foreclosure of an alternative opportunity due to, and during, a price limit event.[10]

Additional criteria may also apply depending on the type of claimant as indicated in the Guidelines.

Claimants must further outline the value of the more profitable alternative opportunity applying approaches in the following order, as noted in the hierarchy of principles set out in section 5.3.4 of the Guidelines:

1. a market-based valuation
2. a valuation applying market values over a similar past period (where an appropriate market-based valuation is not available)
3. an alternative methodology developed by the claimant (where neither 1 nor 2 is possible).

For further information, the full version of the Guidelines is available at https://www.aemc.gov.au/sites/default/files/documents/final_amended_compensation_guidelines.pdf

2.3 The Commission's approach to valuing opportunity costs

The application of the compensation arrangements should ensure that participants with valid opportunity costs are no worse off from continuing to generate during the APP than if they had pursued the alternative opportunity. Claimants should therefore be compensated for any profit foregone as a result of continuing to supply or consume energy or services during the price limit event.

The Guidelines specify that for any type of claim, the total level of compensation is to be based on the formula given in Figure 2.1.

Figure 2.1: Equation to determine the total claimable amount

$$TCA = \sum_t (DC_t + OC_t + OTH_t - REV_t)$$

Source: AEMC guidelines, 2021, Figure 5.1.

Where:

- TCA = Total Claimable Amount.
- DC_t= Direct costs incurred in the eligibility period(s).
- OC_t = Opportunity costs incurred over the relevant period of time.
- REV_t= Actual or potential revenue.

8 Clause 3.14.6(b) of the NER.

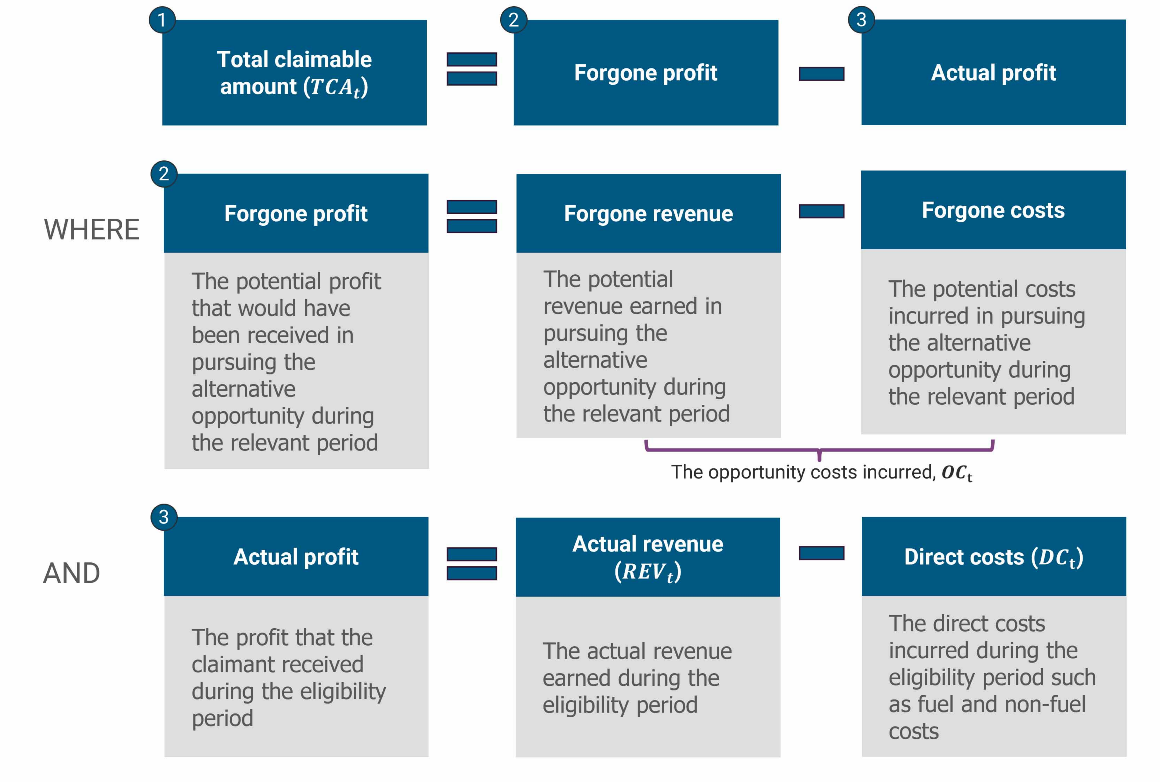
9 Section 5.3.3 of the Guidelines.

10 Section 5.3.2 of the Guidelines, clause 3.14.6(a) of the NER.

- *OTH_t* = Any other adjustments to the amount of compensation payable to be taken into consideration by the Commission.
- *t* = relevant period of time for which a claim is being made. The claimant is to define the time period(s) for which it is making a claim for compensation, which should be limited to periods where the price limit event applies. The relevant time period may vary depending on the type of claim. The AEMC would assess whether the claimant has demonstrated the requirements for a claim in the relevant time period(s).

Figure 2.2 sets out a diagrammatic demonstration of how this equation can be applied to an opportunity costs claim, and the information required from claimants to calculate the TCA.

Figure 2.2: Calculation of the total claimable amount



Source: AEMC, 2024.

The *value of the forgone opportunity,* i.e., the opportunity costs variable, *OC_t*, is the potential profit that would have been received if the claimant had pursued the alternative opportunity during the relevant period. It is calculated as the forgone revenue associated with the alternative opportunity (in the period of time and market in which the opportunity lies), less the costs that would have been incurred had the claimant pursued its alternative opportunity.

The *forgone revenue* associated with the alternative opportunity should reflect the quantity of resource sold multiplied by the price of the resource:

- The *quantity* component constitutes the quantum of generation that the claimant supplied to the NEM during the APP that is above what it would have preferred to supply, during the application of the APC.
- The *price* component is the price at which that quantum of generation is valued for the purposes of valuing the forgone opportunity.

The appropriate application of the TCA formula also requires that any profit from the eligibility period should be deducted from the forgone profit associated with the alternative opportunity. This is to ensure that the claimant does not receive profit from using the resource in the eligibility period as well as the profit from the relevant period. To ensure the claimant is no worse off than if the claimant did not generate but rather pursued the alternative opportunity, the claimant should only receive the profit from the alternative opportunity, not from doing both. Deducting the direct cost incurred and revenue earned during the eligibility period from the total claim amount ensures that any profit received during that period (and retained) is netted off the compensation amount.

In order for the Commission to properly value a claim for opportunity costs, it is important that when submitting a claim, claimants provide information on both revenues and costs associated with the pursuing the alternative opportunity. Consistent with the application of the TCA equation referred to above, this is essential to understanding the level of profit associated with the alternative opportunity that has been forgone, compared to any profit or loss made during the eligibility period. In addition, even if there is no claim for direct costs, information must be provided on the direct costs incurred by the claimant in both the eligibility period and for the forgone opportunity.

3 EnergyAustralia's Claim

On 23 June 2022, EnergyAustralia provided notification of its intent to claim compensation in relation to the APP in Queensland, New South Wales, and South Australia between 12 June and 15 June 2022. For the purposes of this claim, this is the APP to which the claim relates. This notification was received within the prescribed timeframe in the NER.[11]

EnergyAustralia is claiming compensation for its coal-fired power station Mt Piper (NSW). This power station is a scheduled generator registered to EnergyAustralia.

EnergyAustralia provided information to the Commission in accordance with the requirements in the Guidelines on 28 September 2023. The Commission commenced formal assessment of EnergyAustralia's compensation claim on 16 May 2024. A timetable for determining EnergyAustralia's compensation claim is set out in **Appendix C**.

In this paper, the Commission:

- details EnergyAustralia's proposed valuation methodology for determining its opportunity costs
- provides views on this proposed valuation methodology against section 5.3 of the Guidelines.

This consultation paper does not express a view on whether EnergyAustralia is eligible for compensation (under clause 3.14.6(b) of the NER) in any or all of the eligibility periods claimed.

The views expressed in this consultation paper represent the Commission's current view as to the methodologies it proposes to use in determining EnergyAustralia's opportunity costs. The Commission has also set out its preliminary views on whether a technical or commercial limitation has been evidenced and whether a valid alternative opportunity has been identified. Those views may change following the receipt and consideration of stakeholder submissions and further information or submissions provided by EnergyAustralia.

3.1 Details of EnergyAustralia's claim

3.1.1 EnergyAustralia's opportunity costs claim

EnergyAustralia is claiming opportunity costs in operating its coal-fired power station Mt Piper (NSW) (Dispatchable Unit Identifiers MP1 and MP2) during the period commencing 6.45pm on 12 June 2022 and ceasing 6.25pm 13 June 2022. Each trading day (or part of a trading day) within this period is a separate eligibility period for the purposes of this claim.[12]

3.1.2 Verification of information provided by EnergyAustralia with AEMO

The Commission has received verified information from AEMO for the spot price, dispatch offers and generation related to EnergyAustralia's claim. Further verification may be required depending on any further information provided by EnergyAustralia in support of its claim.

3.1.3 Confidentiality

As acknowledged in the Guidelines, when performing its functions under clause 3.14.6 of the NER, the Commission is required to take all reasonable measures to protect from unauthorised use or disclosure of information given to it in confidence.[13]

11 Clause 3.14.6(i) of the NER.

12 Clause 3.14.6(a) of the NER.

13 Section 24, Australian Energy Market Commission Establishment Act 2004. Section 31 of the National Electricity Law.

EnergyAustralia made a claim of confidentiality in respect of its demonstration of coal as a scarce commodity, including coal delivery contracts and coal stockpile levels. EnergyAustralia has also made a claim of confidentiality in respect to its net loss and claim calculations, as it is based on private settlement data from AEMO.

The discussion of EnergyAustralia's claim in this document is partly constrained in order to protect EnergyAustralia's confidential information.

3.2 Methodology proposed by EnergyAustralia

This section summarises the submission made by EnergyAustralia in support of and relevant to its proposed methodology for determining its opportunity costs. The summary of the submission here does not represent a finding that the Commission accepts this submission. Those issues will be dealt with in the Commission's final decision on EnergyAustralia's claim under clause 3.14.6(q) of the NER.

Prior to making a final decision, the Commission will:

- have regard to any written submissions made in response to this consultation paper under clause 3.14.6(p) of the NER; and
- consult with the claimant as required under clause 3.14.6 (r) (including by way of the provision of a draft decision for comment).

3.2.1 EnergyAustralia claims a technical limitation

EnergyAustralia claims a technical limitation applied at Mt Piper during the APP due to a lack of viable coal sources and low coal deliveries. It claims:

- In late 2021, EnergyAustralia reviewed coal availability for Mt Piper and found no other viable sources of coal, other than what was contracted.
- It had to limit production in May 2022 to build stockpile to support winter generation due to deliveries being significantly below what was contracted in Q1 2022.
- Coal deliveries for a supplementary contract from another coal mine were both delayed and lower than expected.
- The quality of coal supplied over the period prior to the APP was poor compared to the specified quality.

EnergyAustralia claims that the lack of viable coal sources around the region combined with actual deliveries being less than contracted created a 'highly energy constrained' operating position through the early part of 2022.

3.2.2 EnergyAustralia claims the foreclosure of an alternative opportunity during the price limit event

EnergyAustralia claims that it experienced a forgone opportunity to use scarce capacity or resources more profitably at the same point in time based on the prices that would have applied in the electricity wholesale market if not for the imposition of the APC in Queensland.

During the APC, the first region to reach the CPT and therefore be capped at $300/MWh was Queensland at 6:45pm on 12 June 2022. New South Wales was capped at 6:25pm on the following day, 13 June 2022. During the intervening period, there were trading intervals where the Regional Reference Price (RRP) in New South Wales was set by referred pricing from Queensland.[14]

14 Clause 3.14.2(e)(2) of the NER.

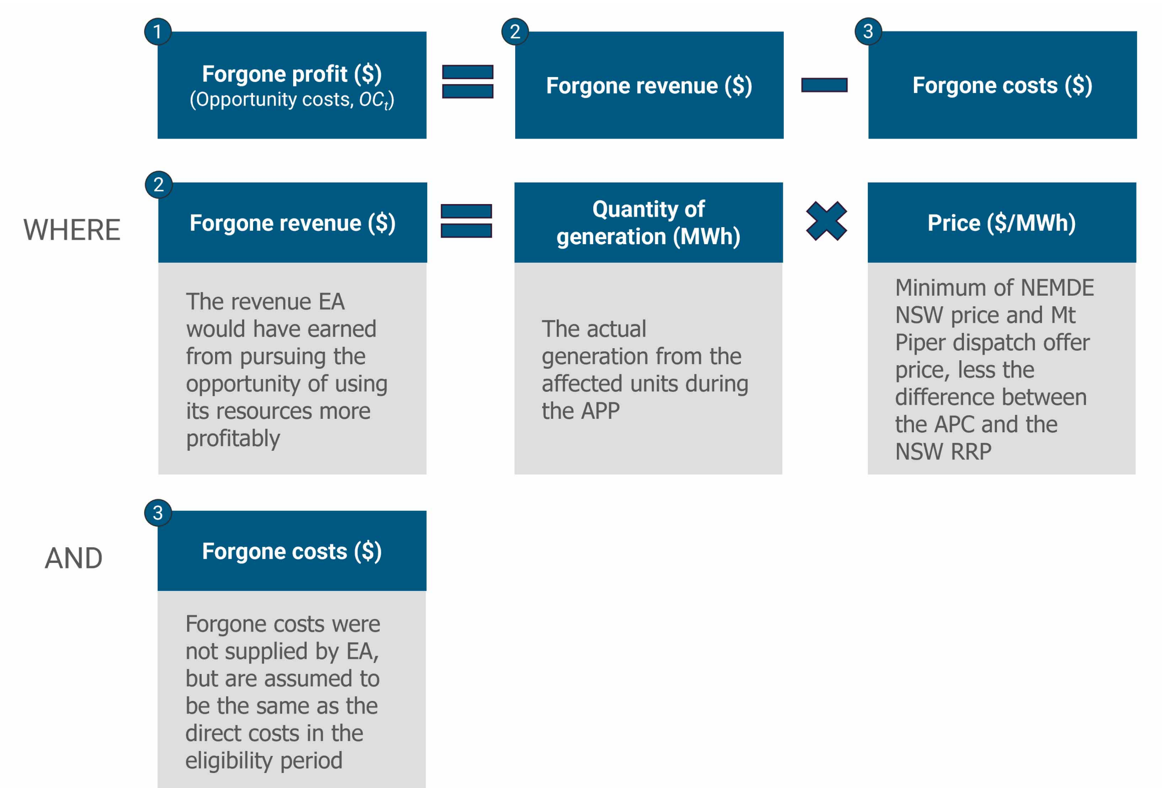
EnergyAustralia claims that it faced a forgone opportunity when the NSW RRP was set by referred pricing under the NER and thus was less than the price calculated by the National Electricity Market Dispatch Engine (NEMDE) that would have otherwise applied.

3.2.3 EnergyAustralia proposes an approach to value its claimed opportunity costs based on dispatch offer values

EnergyAustralia's proposed valuation methodology for determining its claimed opportunity costs is based on the dispatch offer values that EnergyAustralia submitted for its Mt Piper units. It is an approach based on market information and EnergyAustralia claims it is a market-based valuation of this forgone opportunity.

Figure 3.1 details EnergyAustralia's proposed valuation methodology for its opportunity cost claim. Note, this does not include the deduction of actual profit in the eligibility period, which would also need to be taken into account in any final assessment of compensation payable in accordance with the formula set out in section 2.3. As noted in section 2.3, the value of the forgone opportunity is the potential profit that would have been received if the claimant had pursued the alternative opportunity during the relevant period.

Figure 3.1: EnergyAustralia's proposed valuation methodology for its claimed opportunity costs



Source: AEMC, 2024, based on information supplied by EnergyAustralia.

The *quantity* of generation used for the valuation of the forgone opportunity is the actual dispatch for the Mt Piper units during its claim period. EnergyAustralia claims that the quantity of energy dispatched under its alternative scenario would not have altered, as its actual energy dispatch of the Mt Piper units was based on the NEMDE NSW price.

Section 5.3.2 of the Guidelines states that the total opportunity costs that can be claimed cannot be larger than its dispatch offers, minus the APC. EnergyAustralia has interpreted this to apply on an interval-by-interval basis, rather than in aggregate, in intervals where referred pricing occurs. It therefore proposes to value its *price* of generation as the minimum of the NEMDE NSW price and Mt Piper's dispatch offer price less the difference between the APC and the NSW RRP. The dispatch offer price is the highest offer band in which Mt Piper was dispatched.

3.3 Review of EnergyAustralia's proposed methodology

At this time, and based on the information provided by EnergyAustralia to date, the Commission has reached the following preliminary views set out below. Specifically, the Commission:

- does not consider that EnergyAustralia's claimed coal shortfall during the APP would give rise to a relevant limitation
- does not consider EnergyAustralia's claimed forgone opportunity to use the constrained resource more profitably represents a valid alternative opportunity that is consistent with the Rules and Guidelines.

3.3.1 Consideration of EnergyAustralia's claimed technical limitation

To demonstrate its claimed technical limitation, EnergyAustralia provided the Commission with data on its coal stockpile levels for the 2022 calendar year.

Based on its analysis of EnergyAustralia's data, dispatch offers, and generation output, the Commission does not consider that that EnergyAustralia's claimed coal shortfall during the APP gives rise to a relevant limitation.

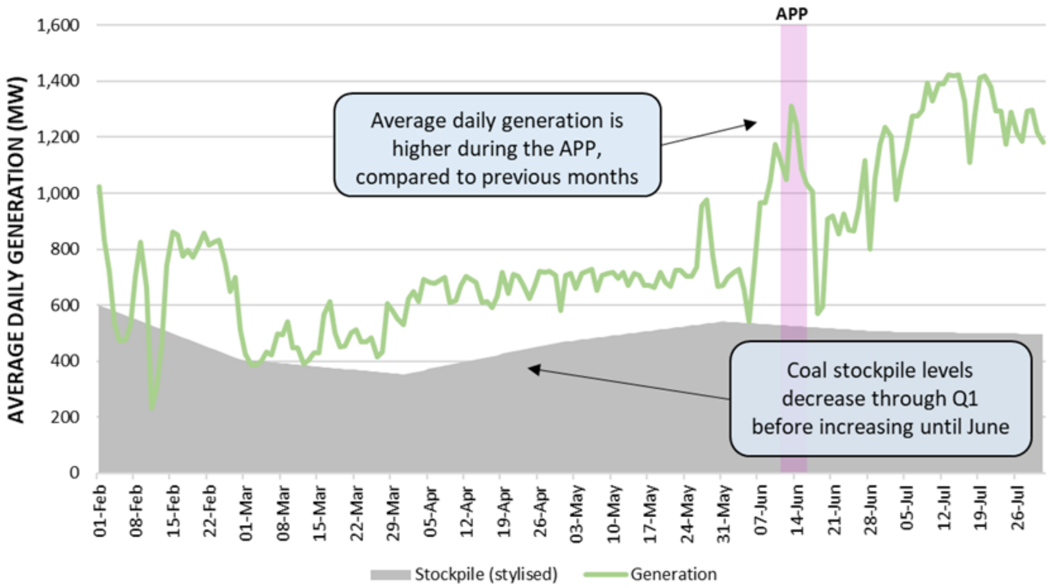
First, it is not clear from EnergyAustralia's submission that its coal position materially restricted its ability to supply during the price limit event.

The reasons for the Commission's reservations about the claimed coal position include the following observations:

- Stockpile levels increased from very low levels over the months prior to the APP and stabilised prior to the APP period.
- Monthly deliveries had returned to contracted levels in April 2022, prior to the APP.
- Monthly coal deliveries in Q2 2022, including during the APP, met or exceeded what was contracted during this period.
- The recovery of EnergyAustralia's stockpiles into June suggests it may not have been technically limited.

These observations are captured in Figure 3.2, which depicts a stylised version of Mt Piper's coal stockpile levels and coal deliveries before, during and after the APP.

Figure 3.2: Mt Piper's coal stockpile levels and average daily generation, 2022



Source: AEMC, 2024. Based on coal stockpile and delivery data from EnergyAustralia.

Second, the Commission's analysis of EnergyAustralia's data suggests that EnergyAustralia did not participate in the market in a manner that was consistent with being technically limited. This is because EnergyAustralia appeared willing to supply at prices less than the APC in a substantial number of periods prior to and during the APP, during which it claims its stockpiles were at low levels.

EnergyAustralia states that its dispatch offers and availability were used to manage Mt Piper's coal position before and during the APP. It also states that it was unable to reprice its generation capacity during June 2022. The Commission's analysis suggests EnergyAustralia's dispatch offer and availability strategies changed over the period prior to and during the APP. Specifically:

- Over March, April, and May 2022, when coal stockpiles were at their lowest levels, EnergyAustralia claims MP2 was subject to an outage and the vast majority of the capacity of MP1 was offered into the market at prices less than \$300/MWh. The nature of the outage is not described in EnergyAustralia's claim.
- In late May, MP2 was brought back into operation, and over late May and June a smaller, but still significant, proportion of the capacity of both MP1 and MP2 was offered at prices less than \$300/MWh. Despite this, the output of MP1 and MP2 increased prior to and during the APP resulting in an increased consumption of coal.

Given the Commission's observations above, the Commission's preliminary view is that EnergyAustralia has not established a technical limitation. To further assess whether there was a technical limitation in relation to the Mt Piper plant, the Commission is seeking further evidence from EnergyAustralia on:

- the rationale for its offer strategies before and during the APP and their consistency with being technically limited
- the nature of the MP2 outage in March, April and May 2022

- the basis for needing compensation above the APC level given EnergyAustralia was willing to accept prices less than $300/MWh prior to the APP.

3.3.2 Consideration of EnergyAustralia's claimed forgone opportunity to use the constrained resource more profitably

EnergyAustralia is seeking compensation for opportunity costs on the basis that, by virtue of the imposition of the APC, it experienced a net loss due to not receiving the wholesale market dispatch price that would have been in place if not for the APC.

The Commission considers that the Rules and Guidelines require a claimant to identify a real (not hypothetical) alternative opportunity to use scarce capacity or resources more profitably at the same point in time or at a later point in time that has been forgone during the APC. EnergyAustralia's claimed alternative opportunity of dispatch offer prices not received is hypothetical in nature, as there is no real alternative situation under the imposition of the price cap where EnergyAustralia could have dispatched energy at these prices. The Commission therefore considers that it is not an 'alternative' opportunity within the meaning set out in the Rules and Guidelines.

3.4 The Commission has not proposed an alternative valuation methodology

EnergyAustralia's proposed methodology for valuing opportunity costs is based on applying the NEMDE NSW price to its energy dispatch over its eligibility period, instead of the NSW RRP. EnergyAustralia claims that this is a market-based approach to valuation.

As the Commission does not consider EnergyAustralia has outlined a valid alternative opportunity within the meaning set out in the Rules and Guidelines, it is not able to set out an opportunity cost methodology for the alternative opportunity.

Question 1: Do stakeholders agree with the Commission's preliminary view that EnergyAustralia did not have a technical limitation that applied during the APP? If not, please provide reasons that an alternative view may be supported.

Question 2: Do stakeholders agree with the Commission's preliminary view that EnergyAustralia has not identified a valid alternative opportunity within the meaning of the Rules and the Guidelines? If not, please provide reasons that an alternative view may be supported.

4 EA Ecogen's Claim

On 22 June 2022, EA Ecogen provided notification of its intent to claim compensation in relation to the APP in Queensland, New South Wales and Victoria between 12 June and 15 June 2022. For the purposes of this claim, this is the APP to which the claim relates. This notification was received within the prescribed timeframe in the NER.[15]

EA Ecogen is claiming compensation for its gas-fired power stations Newport and Jeeralang in Victoria. These power stations are scheduled generators registered to EA Ecogen.

EA Ecogen provided information to the Commission in accordance with the requirements in the Guidelines on 3 November 2023. The Commission commenced formal assessment of EA Ecogen's compensation claim on 16 May 2024. A timetable for determining EA Ecogen's compensation claim is set out in **Appendix C**.

In this paper, the Commission:

- details EA Ecogen's proposed valuation methodology for determining its opportunity costs
- reviews this proposed valuation methodology against section 5.3 of the Guidelines.

This consultation paper does not express a view on whether EA Ecogen is eligible for compensation (under clause 3.14.6(b) of the NER) in any or all of the eligibility periods claimed.

The views expressed in this consultation paper represent the Commission's current view as to the methodologies it proposes to use in determining EA Ecogen's opportunity costs. The Commission has also set out its preliminary views on whether a technical or commercial limitation has been evidenced and whether a valid alternative opportunity has been identified. Those views may change following the receipt and consideration of stakeholder submissions and further information or submissions provided by EA Ecogen.

4.1 Details of EA Ecogen's claim

4.1.1 EA Ecogen's direct cost claim

EA Ecogen is claiming direct costs in operating:

- Newport Power Station in Victoria during the period commencing 4.05am on 14 June 2022 to 4.00am on 15 June 2022, and
- Jeeralang Power Station in Victoria during the period commencing 4.05am on 14 June 2022 to 2.00pm on 15 June 2022.

Each trading day (or part of a trading day) within this period is a separate eligibility period for the purposes of this claim.[16]

As public consultation does not occur for claims for direct costs, the Commission's assessment of EA Ecogen's claim for direct costs will be set out in the final decision.

4.1.2 EA Ecogen's opportunity cost claim

EA Ecogen is claiming opportunity costs in operating:

- Newport Power Station in Victoria during the period commencing 4.05am on 14 June 2022 to 4.00am on 15 June 2022, and

15 Clause 3.14.6(i) of the NER.

16 Clause 3.14.6(a) of the NER.

- Jeeralang Power Station in Victoria during the period commencing 4.05am on 14 June 2022 to 2.00pm on 15 June 2022.

Each trading day (or part of a trading day) within this period is a separate eligibility period for the purposes of this claim.[17]

4.1.3 Verification of information provided by EA Ecogen with AEMO

The Commission has received from AEMO verified information for the electricity spot price, dispatch offers, generation, gas market prices and gas volumes related to EA Ecogen's claim. Further verification may be required depending on any further information provided by EA Ecogen in support of its claim.

4.1.4 Confidentiality

As acknowledged in the Guidelines, when performing its functions under clause 3.14.6 of the NER, the Commission is required to take all reasonable measures to protect from unauthorised use or disclosure of information given to it in confidence.[18]

EA Ecogen made a claim of confidentiality in respect of its demonstration of gas as a scarce resource, including its 2022 gas portfolio business plan. EA Ecogen has also made a claim of confidentiality in respect to its claim calculation, as it is based on private gas and electricity settlement data from AEMO.

The discussion of EA Ecogen's claim in this document is partly constrained in order to protect EA Ecogen's confidential information.

4.2 Methodology proposed by EA Ecogen

This section summarises the submission made by EA Ecogen in support of its claim and relevant to its proposed methodology for determining its opportunity costs. The summary of the submission here does not represent a finding that the Commission accepts the submission. Those issues will be dealt with in the Commission's final decision on EA Ecogen's claim under clause 3.14.6(q) of the NER.

Prior to making a final decision, the Commission will:

- have regard to any written submissions made in response to this consultation paper under clause 3.14.6(p) of the NER; and
- consult with the claimant under clause 3.14.6(r) (including by way of the provision of a draft decision for comment).

4.2.1 EA Ecogen claims technical and commercial limitations

In early 2022, EA Ecogen claims it faced a combination of high market price volatility in the NEM, and significantly higher-than-expected forced outage rates for its baseload fleet. To make up this electricity generation shortfall, gas-powered generators in EA's portfolio consumed more than double the forecast usage of gas for all of 2022 by the end of April 2022.

EA Ecogen claims it faced a combination of technical and commercial limitations, including:

17 Clause 3.14.6(a) of the NER.

18 Section 24, Australian Energy Market Commission Establishment Act 2004. Section 31 of the National Electricity Law.

- The technical limitation is claimed to be low gas availability in the Iona Gas Storage Facility (Iona) as a result of high gas-powered generation levels in Q1 2022. The Iona gas storage levels were depleted to a level threatening supply for the forecast winter usage requirements.
- The commercial limitation is claimed to be the high price incurred by EA on the Declared Wholesale Gas Market (DWGM) to replenish the Iona gas storage for winter. These very high gas prices seen in May 2022 resulted in the DWGM APC being imposed for the first time in the DWGM's history.

EA Ecogen claims that the constraint was largely technical in nature, due to low availability of gas in winter. During the APP, EA Ecogen nominated its Maximum Daily Quantity (MDQ) on all its gas supply contracts. It argues that it undertook extraordinary action to purchase gas from the spot market without an equivalent hedging injection during the APP. It claims that the extremity of this action strengthens its position that gas was a scarce commodity.

4.2.2 EA Ecogen claims the foreclosure of an alternative opportunity during the price limit event

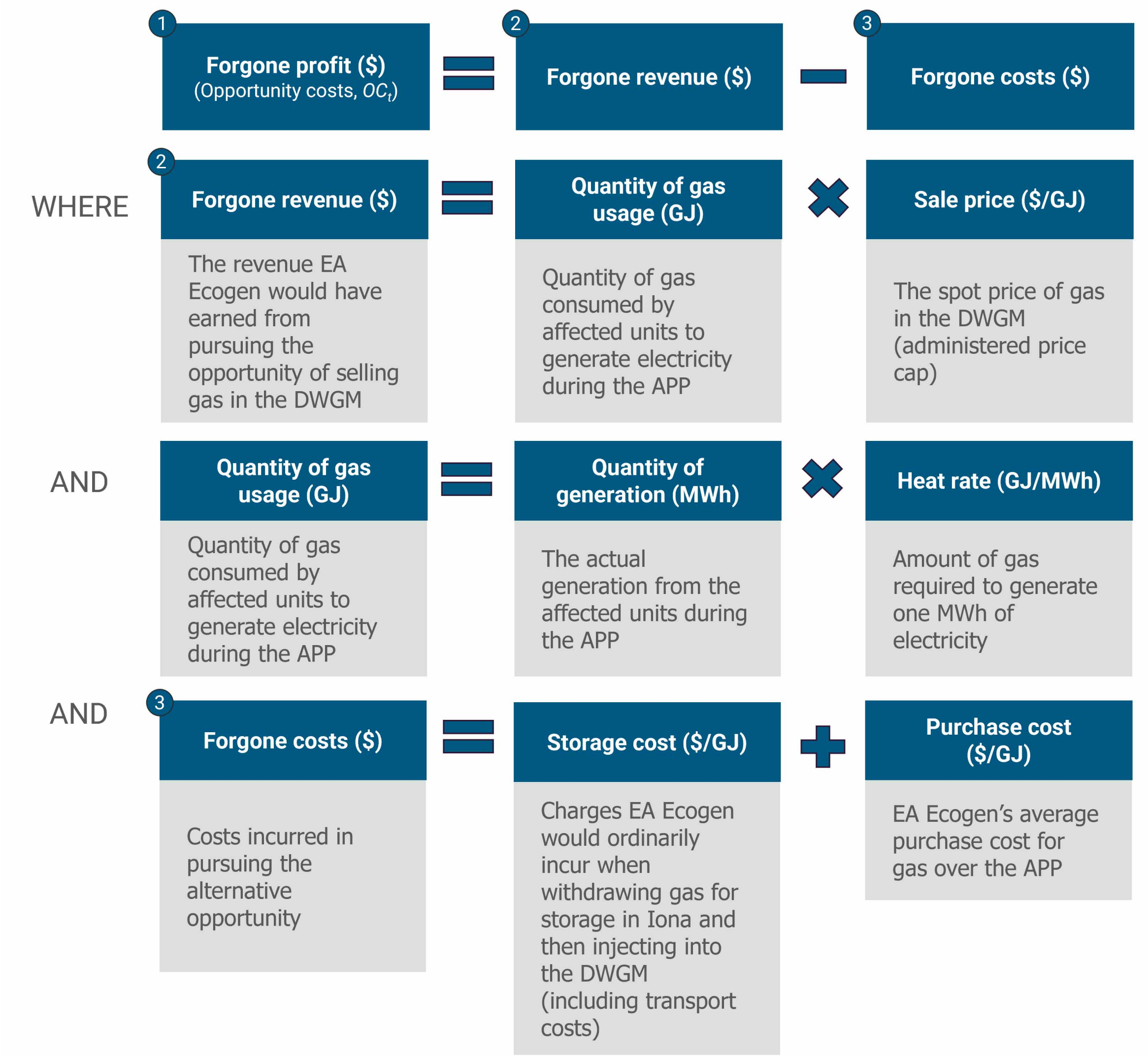
EA Ecogen claims that using its gas facilities to generate electricity during the APP constitutes a forgone opportunity to sell the gas into the DWGM for higher prices after the APP, using the same resources.

EA Ecogen claims that it experienced the loss of an opportunity to store the gas purchased from the spot market, instead of generating during the APP, and later selling that same gas into the DWGM at the APC of $40/GJ, thereby making a higher margin. This APC of $40/GJ is the counterfactual gas price for EA Ecogen's claim. EA Ecogen claims this scenario is viable as the DWGM was capped at $40/GJ for all of June 2022 through to late July 2022 and that it had sufficient rights to storage capacity at Iona to accomplish this.

4.2.3 EA Ecogen proposes a market-based approach to value its claimed opportunity costs

Figure 4.1 summarises the methodology proposed by EA Ecogen to value its opportunity cost claim. Note, this does not include the deduction of actual profit in the eligibility period, which would also need to be taken into account in any final assessment of compensation payable in accordance with the formula set out in section 2.3. As noted in section 2.3, the value of the forgone opportunity is the potential profit that would have been received if the claimant had pursued the alternative opportunity during the relevant period.

Figure 4.1: EA Ecogen's proposed valuation methodology for its claimed opportunity costs



Source: AEMC, 2024, based on information supplied by EA Ecogen.

EA Ecogen's claim calculates the value of the forgone opportunity during the APP. It does this by outlining the *quantity* of gas usage that was used as fuel by its affected units to generate during the APP and multiplying it by the price it could have received for selling this same gas at a higher price in an alternative market, being the DWGM. EA Ecogen then deducts the costs associated with purchasing and storing the gas to sell in to the DWGM.

The *quantity* of gas usage is the total gas consumption attributable to affected units. The price is based on the spot price in the DWGM, serving as the counterfactual gas price. The costs associated with using the gas in this alternative opportunity include the purchase cost for gas and the charges EA Ecogen would ordinarily incur when withdrawing gas for storage in Iona and then injecting into the DWGM. EA Ecogen proposes a gas sale price of $40/GJ, which is the APC as applied in the DWGM.

4.3 Review of EA Ecogen's proposed methodology

At this time, and based on the information provided by EA Ecogen to date, the Commission has reached the following preliminary views that are set below. The Commission:

- considers that EA Ecogen faced a relevant commercial limitation related to the scarcity of gas
- considers that the forgone opportunity claimed is consistent with the foreclosure of an alternative opportunity during the price limit event, but is seeking further information regarding Origin's ability to take advantage of the opportunity
- is supportive of EA Ecogen's proposed valuation approach.

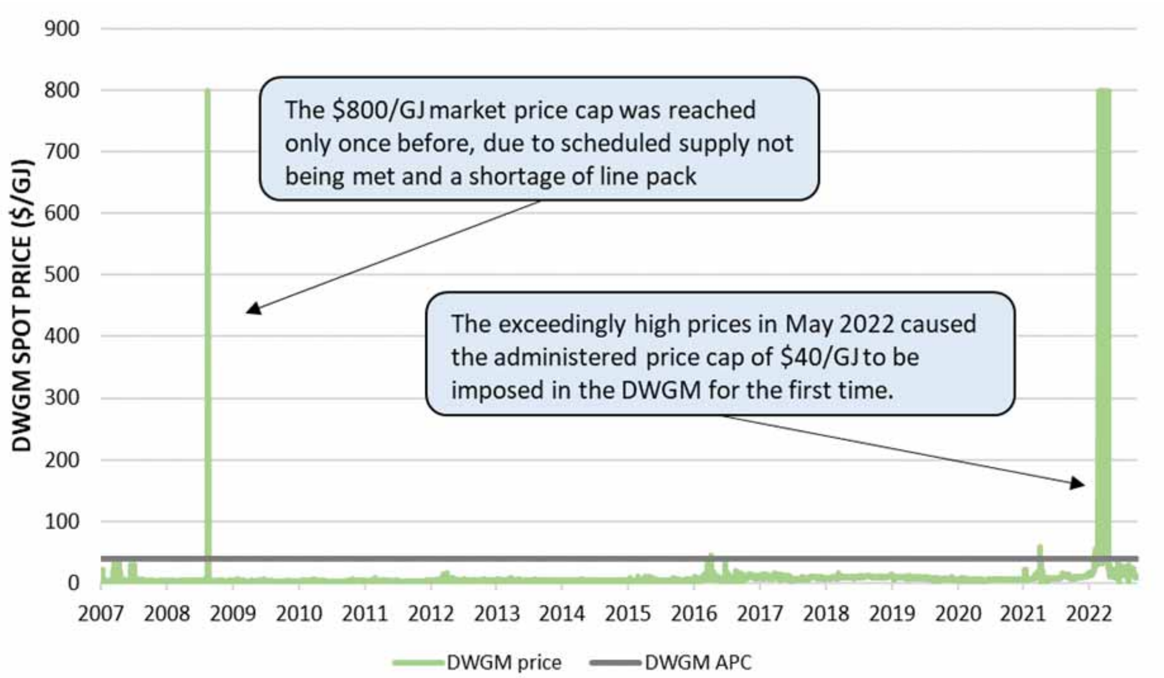
4.3.1 Evidence in support of EA Ecogen's claimed limitation

To demonstrate its claimed technical and commercial limitations, EA Ecogen provided the Commission with:

1. An excerpt from its 2022 business plan showing forecast gas usage at all gas-fired power generator assets
2. EnergyAustralia supply contracts and nominations showing MDQ nominated each day
3. A communication containing a notice to AEMO[19] regarding fuel restrictions for EnergyAustralia's relevant assets.

The Commission accepts that at the time of the APP there was limited supply of wholesale gas resources. This is demonstrated by the lack of gas in storage as well as significant increases in east coast wholesale gas prices above historical levels. Figure 4.2 shows historical DWGM prices up to and including the APP.

Figure 4.2: Historical DWGM prices (uncapped)



Source: AEMC analysis of the AEMO MMS database.

19 Clause 4.8.1 of the NER.

The Commission accepts that EA Ecogen likely faced a commercial incentive to supply into the DWGM rather than the NEM due to a price difference between these two markets during the APP. Specifically, it would have been more profitable for EA Ecogen to use its latent storage capacity to store gas that it had purchased previously and sell it into the DWGM at a later point in time, rather than use these resources to dispatch into the NEM with the APC in place. A commercial incentive to sell the resource in another market due to price differences between markets is an example of a commercial limitation specifically set out in section 5.3.3 of the Guidelines.[20]

4.3.2 Consideration of EA Ecogen's claimed forgone opportunity to use the constrained resource more profitably

The Commission's preliminary view is that EA Ecogen's claimed forgone opportunity is consistent with an alternative opportunity to use its scarce gas resources more profitably at the same point in time or at a later point in time, consistent with the definition of opportunity cost in the Guidelines. EA Ecogen's use of its gas resources to supply electricity into the NEM would exclude it from using those same gas resources to sell into the DWGM in the same or a future period more profitably.

As noted in section 4.3.1, the DWGM spot price cleared at $40/GJ for the majority of days between May 31 and July 31 2022. Given this, EA Ecogen would have had numerous trading days throughout this period to sell the volume of gas consumed by its generators into the DWGM and receive a sale price of $40/GJ. The Commission's preliminary view is that, given the exceptional market circumstances and the significant demand for gas, it is reasonable to assume that EA Ecogen could have taken advantage of the alternative opportunity.

However, the Commission seeks feedback from stakeholders, and is seeking further information from EA Ecogen to evidence its claimed forgone opportunity to use its constrained gas resource more profitably. Specifically regarding whether:

- the claimed alternative opportunity was consistent with EA Ecogen's historical market behaviour
- EA Ecogen's gas trading systems and governance arrangements would have enabled or permitted it to take advantage of such an opportunity
- the additional injection of the specified quantity of gas into the DWGM would have decreased the underlying uncapped DWGM spot price due to increased supply.

4.3.3 Consideration of EA Ecogen's proposed valuation methodology

EA Ecogen's proposed methodology values opportunity costs by estimating the value of the gas consumed at Newport and Jeeralang in the gas spot market. The scenario is based on its ability to store gas from the DWGM in Iona and withdraw it for sale at the same time or at a later date.

The valuation methodology proposed by EA Ecogen represents a market-based valuation in accordance with the hierarchy of principles outlined in section 5.3.4 of the Guidelines, and the Commission is supportive of the approach.

The Commission notes that EA Ecogen has claimed both the direct and opportunity costs for the generating units that are the subject of the opportunity cost component of the claim and that EA Ecogen has deducted the direct cost of pursuing the opportunity from the expected revenue that it would have received from the alternative opportunity.

In reviewing EA Ecogen's methodology, the Commission has considered:

20 Section 5.3.3 sub-point 3 of the Guidelines.

- whether market outcomes may have been impacted in the DWGM from the injection of additional gas supply, thus impacting the price it would have been able to receive
- whether the period during and after the APP is appropriate for estimation of the volume weighted average price to be applied in EA Ecogen's claim.

The Commission has also considered whether the injection of the volume of gas into the DWGM could have altered market outcomes, and therefore impacted the price that EA Ecogen would have been able to receive for its gas. The Commission notes that demand for gas is generally inelastic and so relatively small changes in market supply may materially impact prices.

The volume of gas used by EA Ecogen's generating units over the APP is equivalent to approximately 10-12 per cent of DWGM daily withdrawals during the period 31 May to 31 July 2022. The uncapped prices in the DWGM cleared at exceptionally high prices when the DWGM APC was in effect, and the APC in the DWGM was binding in 60 per cent of all intervals. The AEMC's preliminary view is that, given generally inelastic demand for gas, an injection of the quantity of gas that is the subject of this claim over multiple trading days would have been unlikely to have altered market outcomes materially in the DWGM such that the prices reduced below the APC of $40/GJ.

The Commission has also considered whether applying the price that applied during the period after the APP is reasonable, given the potential for the APP to have impacted market conditions after the event. Given that this claim relates to outcomes in an adjacent market, and not the electricity market, the Commission's view is that the period during and after the APP is reasonable for use for the purpose of calculating the relevant price.

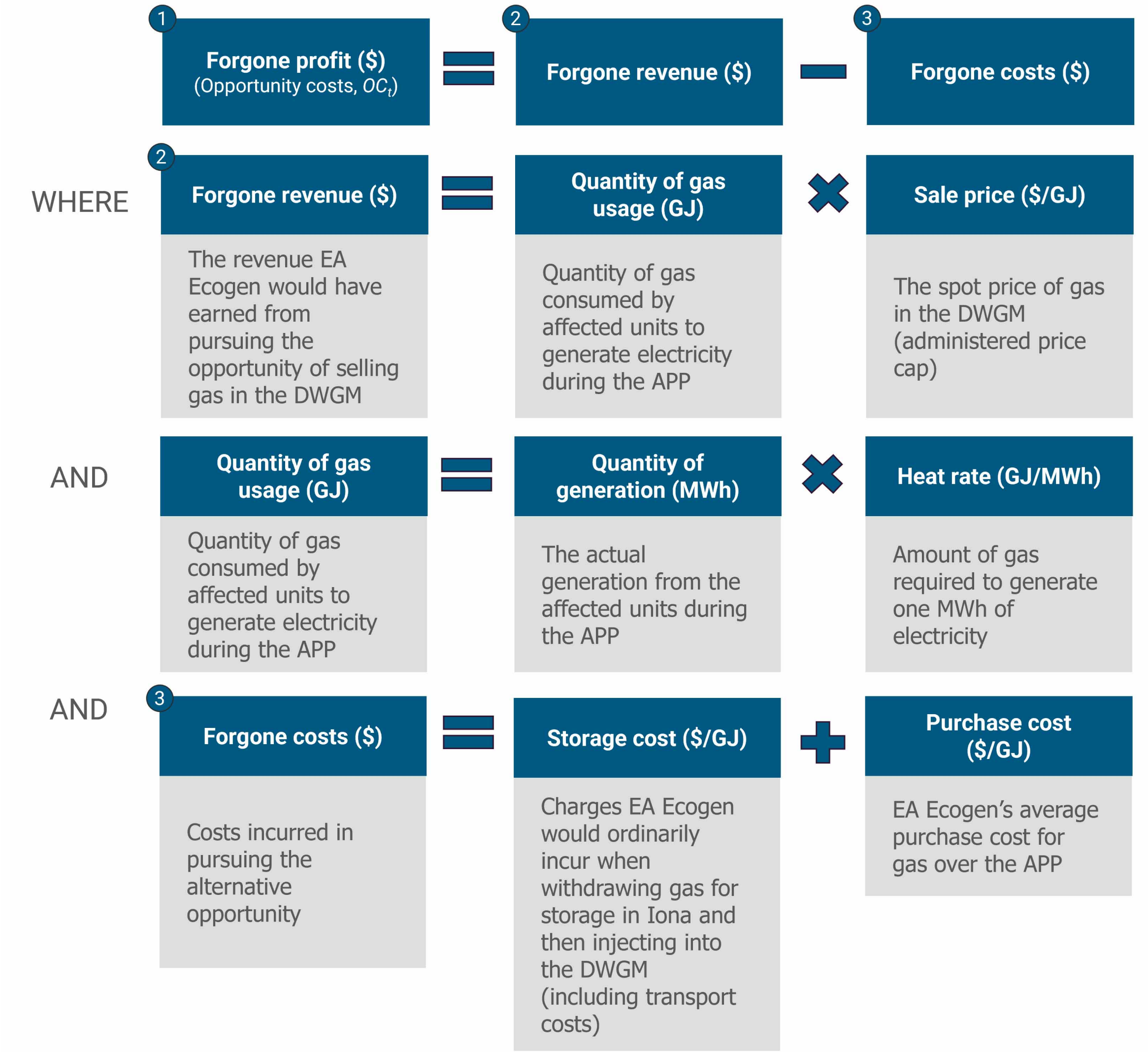
The Commission is seeking stakeholder views on whether $40/GJ is a reasonable volume weighted average price to be applied in valuing the alternative opportunity.

4.4 The AEMC's proposed valuation methodology for EA Ecogen's opportunity costs

This section outlines the Commission's current view as to the methodology it proposes to use in determining EA Ecogen's opportunity costs. Those views may change following the receipt and consideration of stakeholder submissions and further information or submissions provided by the claimants.

Figure 4.3 shows the Commission's proposed valuation methodology to determine the value of EA Ecogen's forgone profit (OC_t in the equation presented in section 2.3), which is consistent with the valuation methodology supplied by EA Ecogen. Note, this does not include the deduction of any actual profit earned, which will be undertaken separately in any final assessment of compensation payable in accordance with the formula set out in section 2.3.

Figure 4.3: Commission's proposed valuation methodology for EA Ecogen



Source: AEMC, 2024.

As noted above, EA Ecogen's proposed methodology deducts the cost of pursuing the opportunity from the revenue received from the opportunity is consistent with the Guidelines, which require the Commission to value the forgone profit from the alternative opportunity.

The Commission does not propose any changes to EA Ecogen's method to determine its *quantity* of gas usage. EA Ecogen's quantity of gas usage amounts have been verified by AEMO.

The Commission does not propose any changes to the methodology proposed by EA Ecogen for determining its *price*. As noted in section 4.3.3, the Commission's preliminary view, subject to feedback from stakeholders, is that the approach to the determination of the price proposed by EA Ecogen is appropriate. The Commission notes that EA Ecogen has deducted the costs associated with pursuing the alternative opportunity, such as gas purchase costs and the charges it would incur when withdrawing gas for storage at Iona and then injecting into the DWGM (including transport costs).

The Commission may adjust its proposed methodology as part of its final decision depending on the additional information provided by EA Ecogen. Any final assessment of compensation payable will also include the deduction of actual profit in accordance with the formula set out in section 2.3.

Question 3: Do stakeholders agree with the Commission's preliminary view that EA Ecogen had a relevant commercial limitation that applied during the APP? If not, please explain your reasons why an alternative view may be supported.

Question 4: Do stakeholders agree with the Commission's preliminary view that EA Ecogen faced the foreclosure of an alternative opportunity to use its constrained gas resources more profitably at the same or later time during the imposition of the price cap? Do stakeholders consider that EA Ecogen had the ability and capacity to avail itself of the claimed alternative opportunity? If not, please explain your reasons.

Question 5: Do stakeholders agree with the Commission's proposed methodology to value EA Ecogen's claimed opportunity costs? Do stakeholders consider that $40/GJ is a reasonable volume weighted average price for gas to be applied in valuing the claimed alternative opportunity? If not, please explain your reasons.

5 Origin's claim

On 22 June 2022, Origin provided notification of its intent to claim compensation in relation to the APP in Queensland, New South Wales, South Australia and Victoria between 12 June 2022 and 15 June 2022. On 29 June 2022, Origin provided notification of its intent to claim compensation in relation to the APP in New South Wales, South Australia and Victoria between 15 June 2022 and 23 June 2022. For the purposes of this claim, this combined period is the APP to which the claim relates. These notifications were received within the prescribed timeframe in the NER.[21]

Origin is claiming compensation for its gas-powered power stations Uranquinty (NSW) Units 11 to 14, Quarantine (SA) Unit 5, and Mortlake (Victoria) Units 11 and 12. These units are scheduled generators registered to Origin.

Origin provided information to the Commission in accordance with the requirements in the Guidelines on 6 September 2023. The Commission commenced formal assessment of Origin's compensation claim on 16 May 2024. A timetable for determining Origin's compensation claim is set out in **Appendix C**.

In this section, the Commission:

- details Origin's proposed valuation methodology for determining its opportunity costs
- reviews this proposed valuation methodology against section 5.3 of the Guidelines.

This consultation paper does not express a view on whether Origin is eligible for compensation (under clause 3.14.6(b) of the NER) in any or all of the eligibility periods claimed.

The views expressed in this consultation paper represent the Commission's current view as to the methodologies it proposes to use in determining Origin's opportunity costs. The Commission has also set out its preliminary views on whether a technical or commercial limitation has been evidenced and whether a valid alternative opportunity has been identified. Those views may change following the receipt and consideration of stakeholder submissions and further information or submissions provided by Origin.

5.1 Details of Origin's claim

5.1.1 Origin's opportunity cost claim

Origin is claiming opportunity costs in operating its power stations during the period commencing 4.05am on 14 June 2022 and ceasing 4.00am on 16 June 2022. Each trading day (or part of a trading day) within this period is a separate eligibility period for the purposes of this claim.[22]

The Commission notes that Origin has separately sought direct cost compensation for generators not subject to this opportunity cost claim.[23]

5.1.2 Verification of information provided by Origin by AEMO

The Commission has received verified information from AEMO for the electricity spot price, dispatch offers, generation, gas market prices and gas volumes related to Origin's claim. Further verification may be required depending on any further information provided by Origin in support of its claim.

21 Clause 3.14.6(i) of the NER.

22 Clause 3.14.6(a) of the NER.

23 Origin sought direct cost compensation for its Roma and Mt Stuart power stations. The final determination for this claim was published on 15 December 2022.

AEMO has also notified the Commission of other forms of compensation that the claimant has received for the relevant period. Origin received directions compensation from AEMO under NER Clause 3.15.7, Payment to Directed Participants. This directions compensation would be captured as an 'other adjustment' to the amount of compensation payable in the equation presented in section 2.3 and deducted from the total claimable amount.

5.1.3 Confidentiality

As acknowledged in the Guidelines, when performing its functions under clause 3.14.6 of the NER, the Commission is required to take all reasonable measures to protect from unauthorised use or disclosure information given to it in confidence.[24]

Origin made a claim of confidentiality in respect of its gas market purchases and gas supply strategy into the DWGM. It has also made a claim of confidentiality in respect of its claim calculation. Both claims are made on the basis that the information is commercially sensitive in nature.

The discussion of Origin's claim in this document is partly constrained in order to protect Origin's confidential information.

5.2 Methodology proposed by Origin

This section summarises the submission made by Origin in support of its claim and relevant to its proposed methodology for determining its opportunity costs. The summary of the submission here does not represent a finding that the Commission accepts this submission. Those issues will be dealt with in the Commission's final decision on Origin's claim under clause 3.14.6(q) of the NER.

Prior to making a final decision, the Commission will:

- have regard to any written submissions made in response to this consultation paper under clause 3.14.6(p) of the NER; and
- consult with the claimant under clause 3.14.6(r) (including by way of the provision of a draft decision for comment).

5.2.1 Origin claims a commercial limitation

Origin claims it faced a commercial limitation as it was unable to respond to price signals to sell gas at higher prices in an alternative market. Origin claims it faced a commercial incentive to supply its gas into the DWGM owing to the higher prices available in the DWGM relative to using it to generate electricity into the NEM during the APP. For example, Origin claims it had a realised gas price of $26/GJ by dispatching into the NEM in Victoria on 15 June 2022. This equates to an electricity price of approximately $277/MWh, using Origin's calculated heat rate.

Origin's three gas-powered generators, subject to the claim, were under AEMO direction notices to make additional dispatch capacity available intermittently throughout the APP. The direction led to Origin being unable to respond to the commercial incentive to allocate this gas supply to a different market.

24 Section 24, Australian Energy Market Commission Establishment Act 2004. Section 31 of the National Electricity Law.

5.2.2 Origin claims the foreclosure of an alternative opportunity during the price limit event

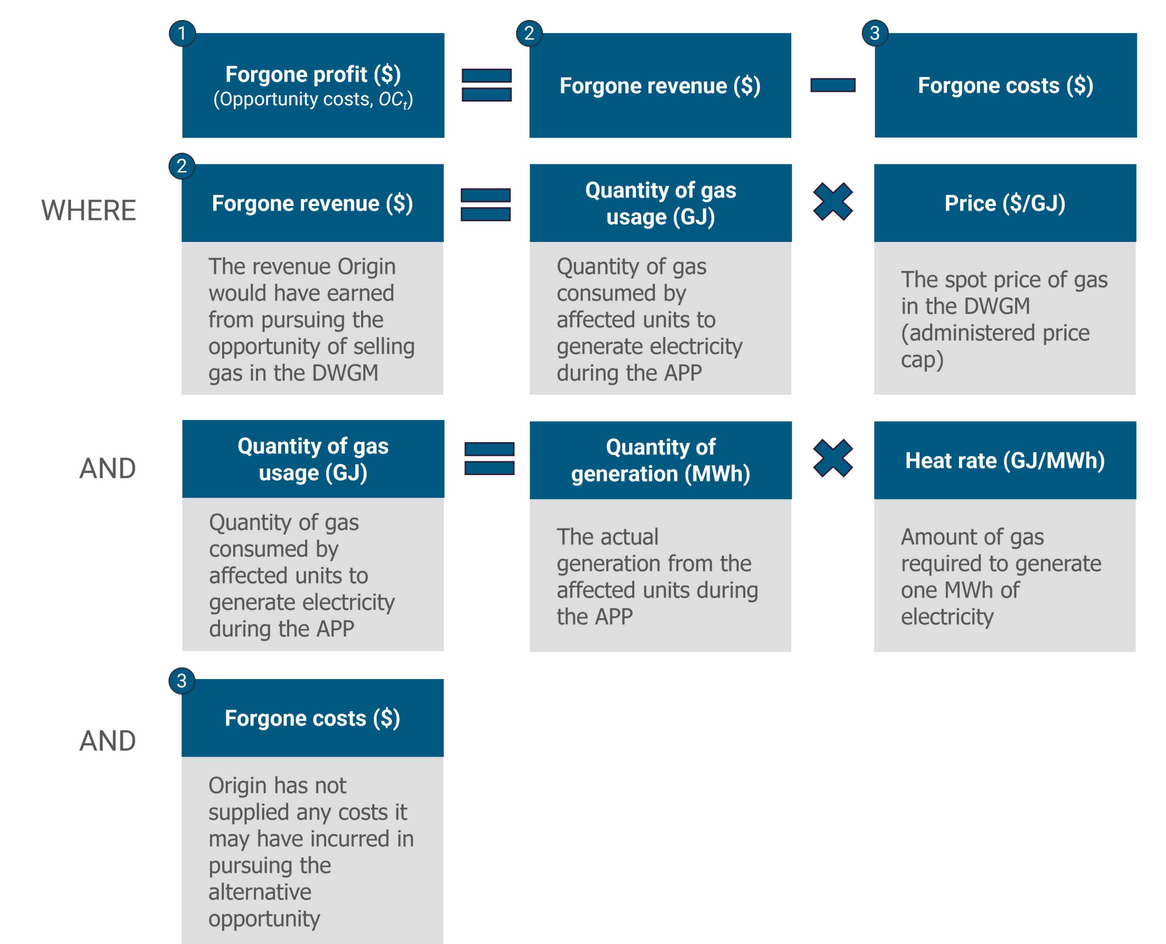
Origin claims it faced a forgone opportunity to use its gas resources more profitability during the price limit event. Specifically, Origin claims using its gas as fuel for its gas-powered generators during the price limit event was less profitable than selling the gas into the DWGM in the same or future period.

Origin outlines that the allocation of its gas supply across markets is typically driven by price signals. Origin claims it had sufficient transportation and storage flexibility in its portfolio to supply the equivalent volume of gas consumed by its generators into the DWGM over the period from 31 May 2022 to 31 July 2022.

5.2.3 Origin proposes a market-based approach to value its opportunity cost claim

Figure 5.1 summarises Origin's proposed valuation methodology for its opportunity cost claim. Note, this does not include the deduction of actual profit in the eligibility period, which would also need to be taken into account in any final assessment of compensation payable in accordance with the formula set out in section 2.3. As noted in section 2.3, the value of the forgone opportunity is the potential profit that would have been received if the claimant had pursued the alternative opportunity during the relevant period.

Figure 5.1: Origin's proposed valuation methodology for its claimed opportunity costs



Source: AEMC, 2024, based on information supplied by Origin.

Origin's claim calculates the value of the forgone opportunity during the APP based on the quantity of generation that was used by its affected units to generate during the APP. The quantity of generation is derived from the quantity of gas usage which is the total gas consumption attributable to affected units. This estimate is based on an assumption that no gas would have been used for dispatch into the electricity market in the event that it took advantage of the alternative opportunity.

The *price* is the amount Origin could have received for selling the same units of gas at a higher price in an alternative market, being the DWGM. The price is based on the spot prices that applied in the DWGM over the relevant period – the APC of $40/GJ. Origin argues that it would have received this amount for the full quantity of its gas as the DWGM cleared at this price for an extended period after the APP. Origin also states that, in its view, the $40/GJ price is a conservative estimate given there were opportunities to realise higher prices for the gas in the short-term trading markets (STTMs). Higher prices were recorded in the Sydney, Adelaide, and Brisbane STTMs in July 2022 where administered pricing did not apply.

As noted in section 2.3, the Commission is required to value the *forgone profit* from the alternative opportunity. This requires the Commission to deduct the costs (e.g., gas purchase costs) from the revenues provided by the alternative opportunity. Origin's methodology does not include the costs, including gas purchase costs or additional costs it may have incurred, such as gas storage or transportation costs, in taking advantage of the alternative opportunity (or the direct costs actually incurred by Origin in generating during the APP).

Origin also claims that the requirement under section 5.3.2 of the Guidelines, which states that 'total opportunity costs that can be claimed by any participant cannot be larger than its dispatch bids or dispatch offers, minus the APC or administered floor price'[25]should not strictly apply to its claim. Origin outlines that generators in the NEM are not obliged to offer capacity in a way that reflects their costs and there are a range of feasible scenarios where a dispatch offer may not be reflective of actual costs. Origin considers that it is not practical to restrict the level of the opportunity costs claimable under the guidelines – in Origin's view, the compensation process itself provides sufficient scope to test the reasonableness of a claim.

5.3 Review of Origin's proposed methodology

At this time and based on the information provided by Origin to date, the Commission has reached the following preliminary views that are set below. The Commission:

- considers that Origin faced a relevant commercial limitation in relation to the scarcity of gas
- considers that the forgone opportunity claimed is consistent with the foreclosure of an alternative opportunity during the price limit event, but is seeking further information regarding Origin's ability to take advantage of the opportunity
- has proposed an amendment to Origin's valuation approach.

5.3.1 Evidence in support of Origin's claimed limitation

To demonstrate its claimed commercial limitation, Origin provided the Commission with:

1. Market data outlining the spot price clearing levels in the DWGM during the APP

25 AEMC, Compensation guidelines, Final guidelines, 21 October 2021, p. 15.

2. AEMO direction notices directing Uranquinty Power Station units 11-14, Quarantine Power Station unit 5 and Mortlake Power Station units 11-12 to make capacity available for dispatch during the APP.

This consultation paper proceeds on the basis that Origin has provided sufficient evidence to demonstrate a commercial limitation. The Commission considers that Origin faced a commercial incentive to supply into the DWGM rather than the NEM during the APP due to a price difference between these two markets. A commercial incentive to sell the resource in another market due to price differences between markets is a commercial constraint specifically set out in section 5.3.3 of the Guidelines.[26]

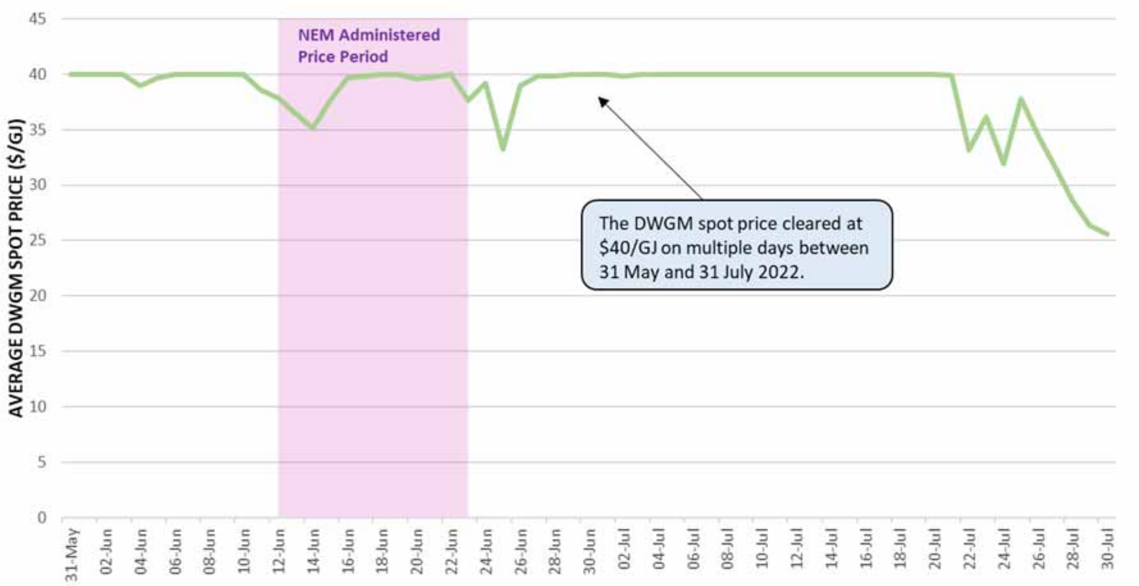
The Commission accepts that the imposition of the price cap and the application of the AEMO direction notices may also have presented a limitation on Origin's ability to sell gas into the DWGM at the time of the APP or in a future period.

5.3.2 Consideration of Origin's claimed forgone opportunity to use the constrained resource more profitably

The Commission's preliminary view is that the forgone opportunity claimed is consistent with an alternative opportunity as set out in the Guidelines. The Commission notes that Origin's use of its gas resources to supply electricity into the NEM would exclude it from using those same gas resources to sell into the DWGM in the same or future period more profitably.

Origin outlines that the DWGM spot prices cleared at the DWGM APC of $40/GJ on the majority of days during the APP, averaging at $39.29/GJ, as shown in Figure 5.2. Origin claims that this demonstrates that it would have received a higher price of $40/GJ for supplying the volume of gas in the DWGM in the absence of being directed to generate by AEMO.

Figure 5.2: DWGM clearing prices during the APP, 31 May – 31 July 2022 (provided by the claimant)



Source: AEMO, 'DWGM Prices and Demand', 8 April 2024 (same data as supplied by Origin).

26 Section 5.3.3 sub-point 3 of the Guidelines.

The DWGM spot price cleared at $40/GJ for the majority of days between 31 May 31 and 31 July 2022. Given this, Origin would have had numerous trading days throughout this period to sell the volume of gas consumed by its generators into the DWGM and receive a price of $40/GJ. The Commission's preliminary view is that, given the exceptional market circumstances and the significant demand for gas, it is reasonable to assume that Origin had the ability to take advantage of the identified alternative opportunity.

However, the Commission seeks feedback from stakeholders, and is seeking additional information from Origin to further evidence its claimed forgone opportunity, regarding whether:

- the alternative opportunity was consistent with Origin's historical market behaviour
- Origin's gas trading systems and governance arrangements would have enabled or permitted it to take advantage of such an opportunity
- Origin would have incurred any additional costs in taking advantage of the alternative opportunity such as costs pertaining to the transportation and storage of gas
- the additional injection of the specified quantity of gas into the DWGM would have decreased the underlying uncapped DWGM spot price due to increased supply.

5.3.3 Consideration of Origin's proposed valuation methodology

Origin's proposed methodology values opportunity costs by estimating the value of the gas consumed at its gas generation units in the gas spot market. The scenario is based on its ability to store gas from the DWGM and sell this gas at the same time or at a later date.

The valuation methodology proposed by Origin represents a market-based valuation in accordance with the hierarchy of principles outlined in section 5.3.4 of the Guidelines. However, as previously noted, Origin has not included either the direct costs of purchasing gas or additional costs such as the storage and transportation of gas, to take advantage of the alternative opportunity. Without deducting these costs, the value is not equal to the profit forgone by Origin during the price limit event. The Commission's approach to addressing Origin's direct and additional costs in assessing the value of the opportunity is discussed in section 5.4 below.

In reviewing the methodology, the Commission has also considered whether:

- market outcomes may have been impacted in the DWGM from the injection of additional gas supply.
- the period during and after the APP is appropriate for estimation of the volume weighted average price to be applied in Origin's claim.
- the application of section 5.3.2 of the Guidelines may have impacted Origin's claim.

The Commission has considered whether the injection of the volume of gas into the DWGM could have altered market outcomes, and therefore impacted the price that Origin would have been able to receive for its gas. The Commission notes that demand for gas is generally inelastic and so relatively small changes in market supply may materially impact prices. The volume of gas used by Origin's generating units over the APP is equivalent to approximately 20-25 per cent of DWGM daily withdrawals during the period 31 May to 31 July 2022. The uncapped prices in the DWGM cleared at exceptionally high prices when the APC was in effect, and the APC in the DWGM was binding in 60 per cent of all intervals. The AEMC's preliminary view is that an injection of the quantity of gas that is the subject of this claim over multiple trading days would have been unlikely to have altered market outcomes materially in the DWGM such that the prices reduced below the APC of $40/GJ.

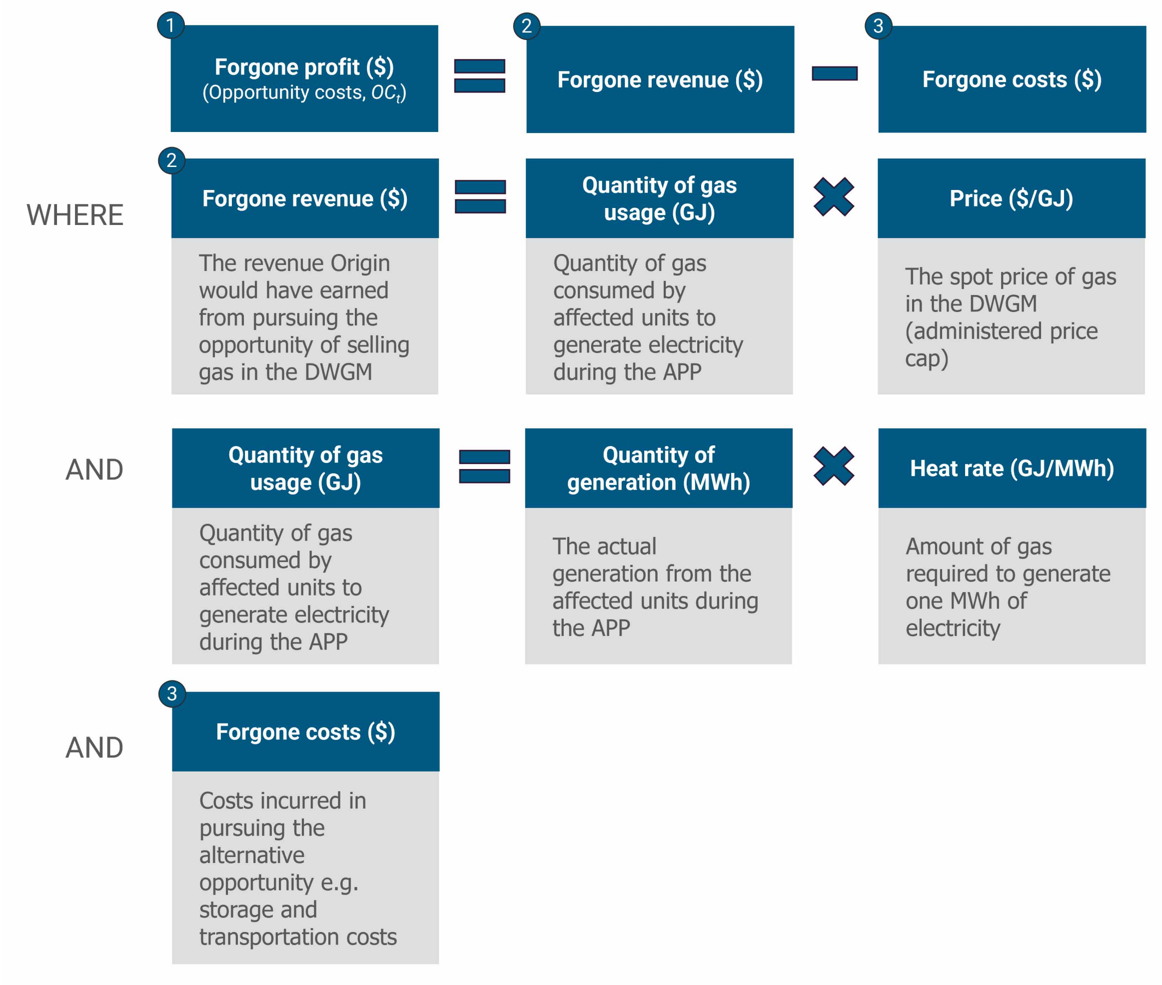
The Commission has also considered whether applying the price that applied during the period after the APP is reasonable, given the potential for the APP to have impacted market conditions after the event. Given that this claim relates to outcomes in an adjacent market, and not the electricity market, the Commission's view is that the period during and after the APP in reasonable for use for the purpose of calculating the relevant price. The Commission is seeking stakeholder views on whether $40/GJ is a reasonable volume weighted average price to be applied to value the alternative opportunity. The Commission has considered Origin's position regarding the application of 5.3.2. The Commission's preliminary view is that this constraint is not binding in this particular claim and, as such, does not apply in this instance.

5.4 The AEMC's proposed valuation methodology for Origin's opportunity costs

This section outlines the Commission's current view as to the methodology it proposes to use in determining Origin's opportunity costs. Those views may change following the receipt and consideration of stakeholder submissions and further information or submissions provided by the claimants.

Figure 5.3 shows the Commission's proposed valuation methodology to determine the value of Origin's foregone profit (OC_t in the equation presented in section 2.3). Note, this does not include the deduction of any actual profit earned including any directions compensation received by Origin, which will be undertaken separately in any final assessment of compensation payable in accordance with the formula set out in section 2.3.

Figure 5.3: Commission's proposed valuation methodology for Origin



Source: AEMC, 2024.

The Commission does not propose any changes to Origin's method to determine its *quantity* of gas usage. Origin's claim assumes that no gas would have been used to supply into the electricity market. Origin's quantity of gas usage amounts have been verified by AEMO.

The Commission does not propose any changes to the methodology proposed by Origin for determining its *price*. As noted in section 5.3.3, the Commission's preliminary view, subject to feedback from stakeholders, is that the approach to the determination of the price proposed by Origin is appropriate.

However, the Commission has amended Origin's proposed valuation methodology to include the deduction of costs relating to the storage and transportation of gas in taking advantage of the alternative opportunity. The Commission considers it is necessary to deduct these costs to ensure that the value of the opportunity equals the profit forgone by Origin during the price limit event. The Commission proposes this change as it considers that Origin may have incurred additional costs in storing and transporting the volume of gas prior to selling the gas into the DWGM. As noted in section 5.3.2, the Commission welcomes stakeholder views regarding an appropriate value for additional storage and transportation costs that may have been incurred by Origin.

In relation to gas purchase costs, the Commission expects that Origin is likely to have incurred equivalent gas costs during the eligibility period and the relevant period and so these costs have no net impact on the total claimable amount.

Any final assessment of compensation payable will also include the deduction of actual profit in the eligibility period in accordance with the formula set out in section 2.3. The Commission notes that to accurately reflect the change in profit that would have arisen in taking advantage of the alternative opportunity, an estimate of the direct costs incurred during the eligibility period is required. The Commission will seek input from Origin on this information.

The Commission may adjust its proposed methodology as part of its final decision depending on the additional information provided by Origin.

Question 6: Do stakeholders agree with the Commission's preliminary view that Origin had a commercial limitation that applied during the APP? If not, please provide reasons that an alternative view may be supported.

Question 7: Do stakeholders agree with the Commission's preliminary view that Origin faced the foreclosure of an alternative opportunity to use its constrained gas resources more profitably at the same or later time during the imposition of the price cap? Do stakeholders consider that Origin had the ability and capacity to avail itself of the claimed alternative opportunity? If not, please explain your reasons.

Question 8: Do stakeholders agree with the Commission's proposed methodology to value Origin's claimed opportunity costs? Do stakeholders consider that $40/GJ is a reasonable volume weighted average price for gas to be applied in valuing the claimed alternative opportunity? If not, please explain your reasons.

Abbreviations and defined terms

AEMC	Australian Energy Market Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
APC	Administered price cap
APP	Administered price period
Commission	See AEMC
DWGM	Declared Wholesale Gas Market
EA Ecogen	EnergyAustralia Ecogen Pty Ltd
EnergyAustralia	EnergyAustralia Pty Ltd
Guidelines	Final guidelines for administered pricing compensation
Iona	Iona Gas Storage Facility
MDQ	Maximum Daily Quantity
NEM	National Electricity Market
NEMDE	National Electricity Market Dispatch Engine
NER	National Electricity Rules
Origin	Origin Energy Electricity Limited
RRP	Regional reference price

A Background and purpose of administered pricing compensation process

Wholesale spot prices in the National Electricity Market (NEM) can vary within a range of between minus $1,000 per MWh[27] and $15,500 per MWh.[28]

Persistent high or low prices can create risks for participants and impact the stability of the market. To limit this variation, at times of extreme prices where the cumulative price threshold (CPT)[29] is exceeded, the administered price cap of $600 per MWh and the administered floor price of -$600 per MWh is applied to spot prices.[30]

At the time of the June 2022 market events to which this claim for compensation relates:

- the MPC was $15,100/MWh[31]
- the CPT was $1,359,100; and[32]
- the APC was $300/MWh.[33]

The NER under clause 3.14.6 and the AEMC compensation guidelines (Guidelines) (published by the Commission under clause 3.14.6(e) of the NER) set out a process for market participants to claim compensation for certain losses incurred during an administered pricing period where the APC or administered floor price is applied.

The purpose of administered pricing compensation is to minimise disincentives during administered price periods

The potential for market participants such as generators, particularly those with high costs, to incur a loss during these administered price periods may create a disincentive for them to supply energy and ancillary services, which could in turn have a negative impact on the security and reliability of the electricity system.

To minimise these disincentives, the NER allow participants to claim administered pricing compensation if they incur a loss during price limit events, being periods in which the spot price is set by the APC during an administered price period.[34] The Commission administers this compensation process. Prior to June 2022, there has only been one claim for compensation arising from an administered price period, which occurred in January/February 2009.[35]

27 This amount is the 'market floor price' under clause 3.9.6(b) of the NER.

28 This amount is the 'market price cap' (MPC) under clause 3.9.4 of the NER. Under clause 3.9.4(d) of the NER, the MPC must be adjusted in line with the consumer price index each year. At the time of the market events occurring in June 2022, the MPC was $15,100/MWh. As of 1 July 2022, the MPC is $15,500/MWh.

29 The CPT represents the limit of aggregate dispatch prices over a period of seven days (2,016 trading intervals). Under clause 3.14.1(e) of the NER, the CPT must be adjusted in line with the consumer price index each year. At the time of the market events occurring in June 2022, the CPT was $1,359,100. As of 1 July 2022, the CPT is now set at $1,398,100.

30 Clauses 3.14.1 and 11.155.2 of the NER.

31 Under clause 3.9.4(d) of the NER, the MPC must be adjusted in line with the consumer price index each year. As of 1 July 2023, the MPC is $16,600/MWh.

32 Under clause 3.14.1(e) of the NER, the CPT must be adjusted in line with the consumer price index each year. As of 1 July 2023, the CPT is $1,490,200.

33 As a result of making the National Electricity Amendment (Amending the administered price cap) Rule 2022, the administered price cap is $600/MWh on and from 1 December 2022 until the end of 30 June 2025.

34 See clause 3.14.6 of the NER. A price limit event also includes where the spot price for a trading interval is set as a result of price scaling (i.e. the application of clause 3.14.2(e)(2)), and for market participants in respect of scheduled load where the spot price for a trading interval is set by the administered floor price or the result of price scaling (under clause 3.14.2(e)(4)), for scheduled network service providers the spot price for a trading interval for a region towards which it is transporting power is set by the APC or price scaling, and for ancillary service providers where the ancillary service price for a trading interval is set by the APC during an administered price period.

35 AEMC 2010, Compensation claim from Synergen Power Pty Ltd, Final decision, 8 September 2010. https://www.aemc.gov.au/markets-reviews-advice/compensation-claim-from-synergen-power

B The Commission's role and process for administered pricing compensation

Eligibility to claim for compensation

Parties eligible to make a claim for administered pricing compensation are:

- Scheduled Generators, Non-Scheduled Generators and Scheduled Network Service Providers to supply energy,
- Ancillary Service Providers to supply ancillary services,
- Market Participants with scheduled loads to consume energy, and
- Demand Response Service Providers to supply wholesale demand response.

These parties can claim compensation if they supplied energy or other services during an administered pricing period and incurred a net loss. That is, their direct and/or opportunity costs exceeded their total revenue from the spot market over an entire "eligibility period" (the period from the first trading interval of a trading day where the spot price is set by the administered price cap, until the end of that trading day). There may be multiple eligibility periods within an administered price period.

Direct costs are costs directly incurred by eligible participants due to a price limit event.

Opportunity costs are the value of opportunities forgone by eligible participants due to the price limit event as defined in the Guidelines.

Making a claim

The Guidelines set out how participants can make a claim for compensation for direct costs and opportunity costs following the application of an APC. The Commission is required to apply the Guidelines in assessing claims for compensation unless it is satisfied there are compelling reasons not to do so.

If a party decides to make a claim, the following applies:

- The claimant must provide notification in writing that it is making a claim within five business days of notification by AEMO of the end of the administered price period to both:
  - AEMC at applications@aemc.gov.au
  - AEMO at NEMIntervention@aemc.gov.au
- This notification in writing will include the:
  - administered price period and price limit event (Price limit events(s) refer to a period in which the spot price is set by the APC during an administered price period or as a result of price scaling).
  - Region(s) in which the administered price period and price limit event applied.
- The notification will state whether the claim is a direct cost claim or a claim that includes opportunity costs.
- It is possible to claim direct costs and opportunity costs for the same price limit event.

Commencing formal assessment of a claim

After receiving the notification to make a claim, the Commission will publish a notice of receipt. The Commission will then seek information from the claimant that we consider required to enable assessment of the claim – if the claim includes opportunity costs, this information must include the methodology used by the claimant to determine its opportunity costs.

The claimant subsequently provides substantiation. The onus is on the claimant to provide evidence and justification. There is no set time period for this step. Any claims of confidentiality in respect of information provided by the claimant to the Commission must be specified in the claim.

The Commission will commence formal assessment as soon as practicable after receiving sufficient information from the claimant.

A notice will be published on the AEMC website that formal assessment has started.

Assessing and making a final determination with respect to a claim

The assessment process for direct and opportunity costs is set out in the Guidelines. Claims will be assessed in accordance with the statutory timeframes.

For direct cost claims, the following key steps apply:

1. Commencement of formal assessment (once sufficient information is received from claimant)
2. Assessment of claim
3. Consultation with claimant
4. Final determination of compensation payable (45 business days after formal commencement)
5. The Commission notifies AEMO of final amount payable
6. AEMO includes details of amounts payable by or to market participants within 25 days of being notified by the Commission.

For opportunity cost claims, the following key steps apply.

1. Commencement of formal assessment (once sufficient information is received from claimant)
2. Publish claimant's proposed methodology and the Commission's proposed methodology for public consultation (no later than 35 business days following formal commencement)
3. Close of consultation on the opportunity cost methodology (minimum of 20 business days after publication of draft methodology)
4. Assessment of claim
5. Consultation with claimant
6. Final determination of compensation payable (no later than 35 business days following close of consultation on the opportunity cost methodology)
7. The Commission notifies AEMO of final amount payable
8. AEMO includes details of amounts payable by or to market participants within 25 days of being notified by the Commission.

Recovery of the Commission's costs of claim

Under clause 3.14.6(v) of the NER, the Commission may recover from a claimant any costs incurred by the Commission in carrying out its functions in respect of its claim. The Commission may require the claimant to pay all or a proportion of those costs to the Commission prior to the claim being considered or determined.

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

C Timetable of the process for opportunity costs claims assessment for EnergyAustralia, EA Ecogen and Origin

The following tables set out the expected timing of the Commission's compensation assessment process for the claimants' opportunity costs claims. These dates align with the statutory timeframes; however, pursuant to 3.14.6(t) of the NER, the AEMC may extend the period of time if it considers the extension reasonably necessary to enable it to properly assess the claim because of the complexity or difficulty of assessing the claim or because of a material change in circumstances.

Table C.1: EnergyAustralia

Date	Milestone
22 June 2022	Notice of claim received
28 September 2023	Supporting information received
16 May 2024	Commencement of formal assessment
27 June 2024	Publish draft opportunity cost methodology
25 July 2024	Close of submissions on draft opportunity cost methodology
19 August – 26 August 2024	Consultation with claimant
19 September 2024 (estimated)	Final decision published

Table C.2: EA Ecogen

Date	Milestone
22 June 2022	Notice of claim received
3 November 2023	Supporting information received
16 May 2024	Commencement of formal assessment
27 June 2024	Publish draft opportunity cost methodology
25 July 2024	Close of submissions on draft opportunity cost methodology
19 August – 26 August 2024	Consultation with claimant
19 September 2024 (estimated)	Final decision published

Table C.3: Origin

Date	Milestone
22 June 2022, 29 June 2022	Notice of claim received
6 September 2023	Supporting information received
16 May 2024	Commencement of formal assessment
27 June 2024	Publish draft opportunity cost methodology
25 July 2024	Close of submissions on draft opportunity cost

Date	Milestone
	methodology
19 August – 26 August 2024	Consultation with claimant
19 September 2024 (estimated)	Final decision published