6 June 2024

Australian Energy Market Commission
Level 15, 60 Castlereagh Street
Sydney NSW 2000

Submitted electronically

Transmission access reform Consultation paper

Snowy Hydro Limited welcomes the opportunity to comment on matters raised in the Transmission access reform Consultation paper.

Transmission access is an important consideration for existing and new generation assets. However, Snowy Hydro does not support the proposed hybrid model. It would introduce a complicated two-stage market that creates cost and uncertainty for market participants while offering, at most, modest benefits. It does little to address the increasingly uncertain reliability outlook, the key challenge for the NEM.

The Consultation Paper does not sufficiently acknowledge the role of the contracts market in bidding behaviour. Generators in the NEM pre-sell most of their output through forward contracts and the principal concern for generators during physical dispatch is, therefore, the need to defend contract positions. Dispatch for a hedged generator is an exercise in portfolio management; that is, to support a generator's hedging strategy. What the Commission sees as improved short run 'dispatch efficiency', generators see as the risky scenario of being unable to earn the spot revenues needed to pay customers for pre-sold energy.

Snowy Hydro considers that the starting point for access reform should be to acknowledge the need for generators to defend contract positions. Such an approach leads to different policy solutions than the hybrid model. Rather than a narrow focus on short run marginal cost, it would recognise the market-wide benefits associated with reduced dispatch risks for generators able to sell firm contracts.[1] This will lower system-wide costs due to lower risk premiums, increased liquidity and a lower cost of contracting.

The pursuit of dispatch efficiency offers the market few benefits because the scale of the 'disorderly bidding' problem is small. According to the cost benefit analysis produced by NERA Economic Consulting in 2020 (NERA CBA) the dispatch efficiency benefits associated with removing disorderly bidding would deliver a total market benefit equivalent to less than 1% of estimated annual pool revenues[2] Set against this are the much larger costs of access reform in the form of uncertainty and contract disruption.

Snowy Hydro acknowledges the Commission's efforts to address generators' concerns by introducing an opt-in model. However, while generators may not be required to participate in the Congestion Relief Market (CRM), all generators will be affected by it

[1] Snowy Hydro proposed a rule change in 2021 to address this risk ('Dual Floor Price'). We are disappointed that it remains pending.
[2] A benefit of $87-112m p.a. over the 2026-2040. We note also that the NERA CBA claimed that access reform would result in 20GW less generation capacity (mostly solar) being built, compared to the status quo.

- even those who never participate. This is because the mere existence of a secondary local market will affect the bidding incentives and prices outcomes in the regional reference price (RRP) market (as indeed it must in order to achieve its claimed benefits). It is clear, also, that the Commission intends for all generators to participate in the CRM, as reflected in the assumption of 100% participation by 2030. Snowy Hydro considers that it is unlikely to opt-in to CRM, or at most, it would only do so on a very limited basis, and that therefore this assumption cannot be accurate.

Snowy Hydro is particularly concerned with the proposed 'co-optimised form' of the CRM. To argue that *"there could be a perception that co-optimisation is less voluntary than the current lead model"* (emphasis added) is not correct. It is not merely a perception; co-optimisation would expose all generators to the CRM, whether or not they participate in the market. Previous versions of transmission access reform, such as Coordination of generation and transmission investment (COGATI) were rejected on the basis that they were mandatory. The mandatory nature of co-optimisation would, therefore, reintroduce its most contentious aspect - forced exposure to local prices. Snowy Hydro also shares AEMO's concerns that a co-optimised CRM would be costly to implement, that it would impact settlement residues and undermine priority access. A full cost benefit analysis is required.

Snowy Hydro makes the following additional observations about the hybrid model:

- Priority Access and CRM would dramatically change the way the NEM operates. The cost of these changes need to be addressed, both operationally and through their impact on contracts. A more detailed assessment is needed to confirm that NEMDE could cope with the hybrid model.

- Higher prices are an unsurprising outcome of priority access, as it tends to limit competition and reduce benefits from transmission upgrades. This is a particular risk of a "hard" priority approach. However, to the extent priority access is implemented, it should be structured to support system reliability by providing locational incentives for firm generation.

- The co-optimised CRM would create particular risks for generators through forced exposure to local prices. We note, in their February 2023 Communique, Energy Ministers ruled out 'any models using locational marginal pricing'[3]

- The Commission should not rely upon the Energy Security Board (ESB)'s cost benefit analysis from February 2023, or indeed the NERA CBA. A new cost benefit analysis, with accurate assumptions and reflecting the most recent submissions from participants, needs to be undertaken. It is surprising that the Commission would consider implementing this type of structural reform without an up-to-date cost benefit analysis.

- The proposed timeline, ie. completing the consultation by September 2024, is not realistic.
    - It creates the risk of rushed decisions and errors in the design proposal.
    - Further modelling, market testing and targeted trials are necessary before priority access and CRM can be assessed and a recommendation made to Ministers.

[3] ECMC Communique - 24 February 2023

- As an alternative to the hybrid model, Snowy Hydro supports further investigation of rounding constraint coefficients. This represents a simple way to successfully mitigate the 'winner takes all' problem. The Commission's simple statement that priority access renders *"the idea of rounding coefficients is redundant"* requires further meaningful analysis. The Commission should properly examine the case for this option.

Detailed design responses:

Objective need to be updated

The assessment criteria adopted by the Commission are the 'transmission reform objectives' previously proposed by the ESB, as later agreed by Energy Ministers:

- *Investment efficiency*
- *Manage access risk*
- *Operational efficiency*
- *Incentivise congestion relief*[4]

As stated above, Snowy Hydro considers that transmission access reform should seek to address access risks for dispatchable capacity and storage. Dispatchable assets require certainty of market access during volatility in order to defend forward contracts. Consideration should therefore be given to prioritising access for dispatchable plant during periods of market volatility, to ensure the availability of hedging contracts and revenue adequacy for firm assets. The transmission reform objectives should be updated to reflect this consideration.

- **Question: Feedback on cost-benefit analysis conducted in 2023**

The ESB's cost benefit analysis in February 2023 (ESB CBA) found that the hybrid model would result in $2.1-5.9b in benefits for consumers, and emissions reductions of 23m tonnes.[5] Since that time stakeholders have raised doubts about the ESB's assumptions. It is critical that a new, up-to-date cost benefit analysis is commissioned.

- The ESB CBA found that implementing the hybrid model would impose substantial costs on AEMO and participants. A co-optimised CRM would further increase these costs, and this needs to be examined in more detail. As the Commission notes about co-optimisation: *"AEMO has some concerns, including that it would be more costly and complex to implement in NEMDE, there may be impacts on settlement residues and concerns over whether CRM bidding in the co-optimised dispatch could undermine priority access."*[6]

- The ESB CBA takes an overly benign view of the impact of the CRM on the contracts market, on the basis that the CRM is opt-in and therefore would not disrupt on foot contracts. As discussed below, however, the voluntary nature of

[4] AEMC, Transmission access reform, Consultation paper, 24 April 2024

[5] Estimating the Impact of the Congestion Management Model and Congestion Relief Market on the NEM Prepared for the Energy Security Board of Australia 10 February 2023

[6] AEMC, Transmission access reform, Consultation paper, 24 April 2024

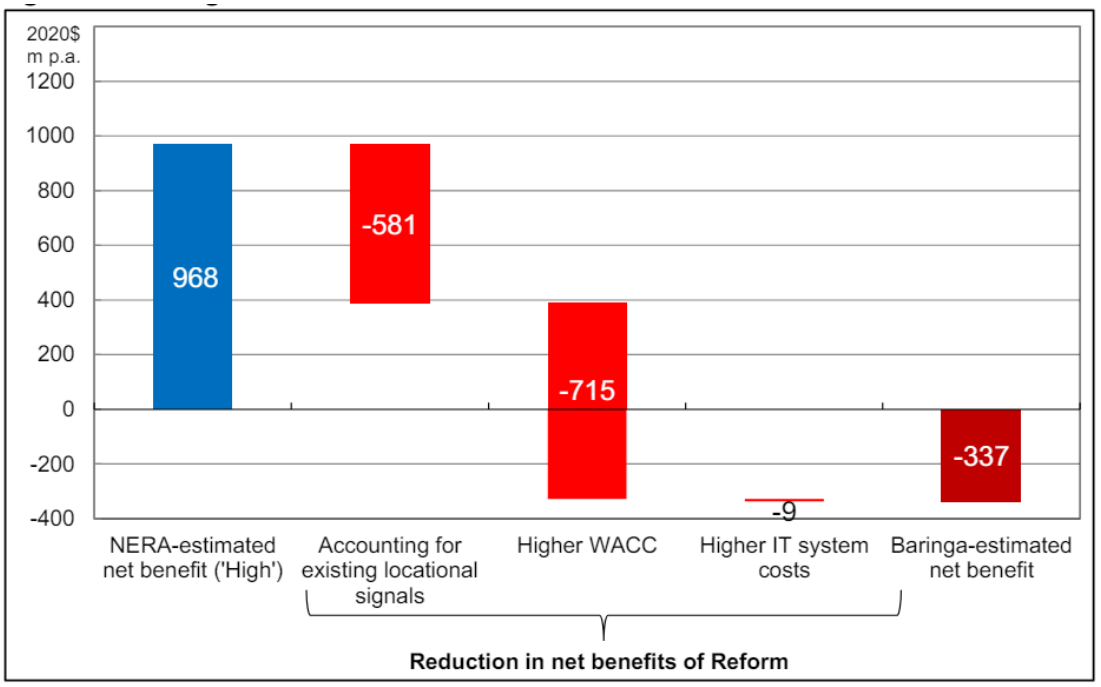
CRM does not remedy the risk of contract disruption. This needs to be taken into account in the modelling.

- As raised in AFMA's previous submissions[7] to the ESB, substantial changes to NEM dispatch may have an adverse effect on participant's ability to hedge electricity price risks. This would have a substantial bearing on the costs and benefits of the reforms.

- The Commission assumes very high participation rates in the CRM, of 70% or higher. Feedback from market participants suggest this is unrealistic; the Commission should, therefore, model participation rates of 50% or lower.

- The Commission refers to the NERA CBA but does not mention the critical feedback from a number of market participants. Snowy Hydro commissioned Baringa Partners to review the NERA CBA (Barina Report),[8] which found that access reform was likely to result in a market disbenefit, once more realistic assumptions were adopted.

Figure 1 Baringa cost-benefit estimate of Reform



Source: Baringa Partners LLP

- **Question: Views on prototyping of the hybrid model**

Snowy Hydro welcomes the prototyping that has been undertaken as it allows for a greater understanding on the impact of priority access and CRM on the NEM.

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[7] Australian Financial Markets Association (AFMA), 2023, Transmission Access Reform – Consultation Paper, <<https://www.datocms-assets.com/32572/1686879732-afma-esb-transmission-access-consultation-paper.pdf >>

[8] Snowy Hydro, 2020, "Transmission access reform: Updated technical specifications and cost-benefit analysis", <<https://www.aemc.gov.au/sites/default/files/2020-10/EPR0073%20-%20Snowy%20Hydro%20submission%20COGATI%20interim%20report%2019Oct2020.pdf >>

As acknowledged by the Commission, there is a risk that that "hard" priority access would increase RRP and create other undesirable system outcomes, such as increased counter price flows. The Consultation Paper notes that *"priority access leads to less efficient dispatch which can impact RRPs (specifically the access RRP). Overall 31% of cases showed a >5% rise in at least one NEM region. 13% of cases showed a >25% rise in at least one region."*[9] This needs further investigation, as it is inconsistent with the proposed 'dispatch efficiencies' arising from the hybrid model. In other words, the Commission's own modelling demonstrates that, rather than lowering dispatch costs, the hybrid model may in fact lead to an increase in prices.

- **Question: Feedback on modelling the hybrid model**

The CRM will create a major risk of contract disruption in the over-the-counter (OTC) contract market. This risk applies to both traditional caps and swaps, as well as PPAs The Commission acknowledges this risk but plays down the prospect that contracts will need to be re-opened.

Confidential information has been omitted for the purposes of section 24 of the Australian Energy Market Commission Establishment Act 2004 (SA) and sections 31 and 48 of the National Electricity Law.

Delaying CRM until the late 2020s or even early 2030s would not address these risks, particularly for PPAs. In Snowy Hydro's experience, the tenure of PPAs that underwrite new wind and solar assets are 15 years, or longer, as this length of contracting period is required to secure project financing. Snowy Hydro has many PPAs that extend into the mid 2030s. The risk that these contracts - which provide long-term price stability for developers and offtakers - will be disrupted and need to be re-negotiated is very problematic .

While the CRM was 'sold' on the basis it was voluntary, the Consultation Paper suggests all participants are eventually expected to opt-in and this calls into question whether participants will be permitted to permanently exclude themselves from it and what the policy consequences will be. For example, the Commission states that the

[9] AEMC, Transmission access reform, Consultation paper, 24 April 2024

CRM design "*was to provide grandfathering of existing access to RRP…*"[10] It remains an unanswered question what would happen if generators permanently opt-out.

- **Question: Assessment of priority access allocation models and feedback on detailed priority access design choices**

Snowy Hydro questions the need for priority access given that there are a number of initiatives already underway to address access issues for renewable energy projects. In particular, renewable energy zones (REZs), supported by access frameworks, are well progressed across most NEM States. REZs will go a long way to addressing the risk of cannibalisation for incumbent generators, reducing the need for a queueing arrangement such as priority access.

To the extent priority access is implemented, bid price floors should be structured to support system reliability requirements. Rather than grouping by time-window, bid price floors (BPF) should be set to provide a locational incentive to firm generation and storage. Firm generation requires dispatch priority in order to sell firm contracts, which ultimately underwrite the increasing penetration of intermittent renewables. Snowy Hydro proposes the following BPF by generator type.

Generator Type	**Bid Price Floor ($/MWh)**
Scheduled Generation > 8 hours	-2,000
Scheduled Generation < 8 hours	-1,000
Semi-Scheduled Generation	-100

Although the floors are slightly different to the dual floor price rule change they follow the same objective and purpose as the initially proposed rule change.

Snowy Hydro makes the following additional observations about priority access:

- ease of implementation, for participants and AEMO, should be a key design consideration;

- the impact of priority access on NEMDE (particularly 'hard' versions of priority access) should be investigated in detail;

- longer lead time pumped hydro projects should not be unfairly disadvantaged over shorter lead time renewables, via 'queue jumping' - this would be addressed by structuring the BPF according to generator type, as proposed above;

- legacy generators (including generators either commissioned or committed at the time that priority access is implemented) should be grandfathered, such that they receive the highest dispatch priority until they retire.

[10] AEMC, Transmission access reform, Consultation paper, 24 April 2024

- The model would make the last generator connected bear the full volume risk, thereby incentivising generators not to connect the last generator in the first place

- It would lead to additional "headroom" being left on the grid to cater for low hours of constraint, thereby leading to inefficient investment in the network (n-2) basis. Transmission line outages would complicate this as these are relatively rare but coincide with times of high prices and need to defend contracts. If so that could mean that each point in the network will be built so that there is no congestion even when there is an outage which would be very costly.

- **Question:**
  - **Assessment of CRM implementation approaches and feedback on detailed CRM design choices; and**
  - **Feedback on impact of the hybrid model on PPAs, impacts of the hybrid model on financial markets**

Snowy Hydro considers that the Commission has not properly recognised the role of contracts in its design choices for the CRM. According to the Consultation Paper, a generator's bidding behaviour is driven only by its short run marginal cost relative to RRP. In reality, the key consideration for a generator is the need to defend its contract position. Attempting to predict generator behaviour on the basis of arbitrary assessments of short run cost is not likely to produce an accurate representation of real-world market outcomes.

Snowy Hydro acknowledges that there may be scenarios where it may be profit maximising for it to buy congestion relief in the CRM. Nevertheless, Snowy Hydro's usage of the CRM will likely be very limited, and it may not participate in the CRM at all. This is because, as mentioned, bidding strategies for an individual generator are largely a function of the generator's contract portfolio. The key drivers of generator profitability are the value of contracts and the ability to successfully defend those contracts. Any gains from operating in the CRM would be comparatively small. Furthermore, Snowy Hydro considers that there will be relatively few periods when it would be profitable for it to participate in the CRM.

While the CRM is, in theory, voluntary, Snowy Hydro is concerned that generators will not be permitted to permanently opt-out. This is because all of the claimed benefits from the CRM are predicated on, eventually, 100% participation - neither the Commission nor ESB appear to have contemplated, let alone modelled, the impact of a significant proportion of generators not opting-in to the new market. This suggests that if generators do not participate in the CRM, and the claimed benefits do not arise, there is a risk that generators will ultimately be required to opt-in. The Commission should state clearly the potential impact of generators not participating in the CRM, and rule out any forced participation in future.

A number of CRM design considerations illustrate its drawbacks. For example, unlike the current market, a single dispatch price would no longer be available and therefore a decision must be made to choose either the Access RRP or Dispatch RRP, neither of which - as conceded by the Commission - is 'perfect'. While Snowy Hydro agrees that

the Access RRP is the least-worst option, both have significant defects compared to the current formulation of the RRP as a common reference price (again, as acknowledged by the Commission).

The proposed co-optimised form of CRM, intended to remedy the defects inherent in both the Access RRP and Dispatch RRP, is unacceptable because it creates a forced exposure to local prices for all participants, regardless of whether or not they opt-in. As mentioned, previous versions of transmission access reform, including COGATI and the Congestion Management Model (CMM) were abandoned, in large part, because it created mandatory local prices. Snowy Hydro also shares AEMO's concerns about the cost, complexity and feasibility of co-optimisation.

Possible measures flagged by the Commission to restrict 'out-of-merit' generators highlight that the CRM has created problems of its own making. While the Commission has not recommended any specific measures at this stage, it is clear from previous consultations that, in future, generators' ability to access the CRM (and, indeed, the Access RRP) may depend upon an arbitrary assessment of whether or not they are bidding 'at cost' or below a pre-determined 'strike price'. This demonstrates that, under CRM, generators are vulnerable to a changing regulatory definition of what is considered in-merit and out-of-merit bidding.

Finally, an advantage of the current regional market design is that it brings together a large number of buyers and sellers who are incentivised to manage their exposure to the RRP. This has provided a solid foundation for the development of liquid financial markets. The CRM, on the other hand, risks undermining the role of the RRP. Snowy Hydro shares AFMA's concerns about any proposal that could "*reduce the importance of the RRP as a pricing signal and reduce liquidity. This could result in a reduction in participants' ability to manage their risk as participants' risk would be tied to their local price rather than the RRP. Additionally, introducing a new source of risk leads to further complication of the market.*" [11]

CRM Dispatch Impact

The CRM proposal does not currently address the high-level concerns participants have on the impact the model will have on dispatch. It is therefore premature to comment on the details of the models when key policy challenges have not been addressed except to point out areas where we consider major policy questions to remain unresolved.

Given the imperative for generators to defend their hedge positions it is unclear why a high priority generator who has been dispatched in the access run would voluntarily wish to participate in the CRM. There's a lack of explanation around how the current dispatch engine, priority access and CRM will interact together. In a high price scenario there are currently no incentives for non-firm generation covering for other generators and at what price would they want to get paid factoring in the risk of not delivering the MWs.

The Commission does not currently address why a generator looking to defend hedge positions would willingly compromise its ability to ensure a unit is available to be

[11] Australian Financial Markets Association (AFMA), 2023, Transmission Access Reform – Consultation Paper, <<https://www.datocms-assets.com/32572/1686879732-afma-esb-transmission-access-consultation-paper.pdf >>

dispatched at the desired level during subsequent dispatch intervals when they need to manage their exposure to hedge contracts, including running units at inefficient output levels or at uneconomic prices for periods of time. The Commission has therefore not understood that the CRM is unlikely to incentivise a generator to decrease (physical) output during periods when constraints are binding and prices are likely to be high.

The Consultation Paperoverly-focuses on a single dispatch interval, rather than the longer intervals relevant to hedging contracts and we consider this is visible in the approach the Commission is taking. To calculate a unit's eligibility for CRM payments AEMO has to calculate the theoretical level that it would have been dispatched at without the CRM. This works reasonably well over a single 5 minute interval but becomes increasingly detached from reality over multiple intervals and AEMO has raised a number of concerns about the impact of allowing wide deviations between access and CRM dispatch. To add to the complexity of CRM, if a participant traded CRM with another generator, then the MWs can't net to zero as they would have different constraint coefficients. This would require another party to the deal to make it work.

The examples being considered by the Commission are perfect world examples which will not materialise in the current market. Participants would not sacrifice volume for the RRP to participate in a voluntary CRM. The effect of a 'high cost' generator trading CRM (buying congestion relief) in a given dispatch interval, is that its physical output is lower at the start of the second dispatch interval than would have been the case if it did not participate in the CRM. This means, in practice, that a generator has sacrificed volume at a high RRP for the second dispatch interval. This suggests that generators will likely remove themselves from CRM whenever there is congestion. This would make CRM ineffective.

Therefore, Snowy Hydro does not believe a high priority generator would choose to participate in the CRM. The benefits from reduced fuel costs will be extremely modest if they can only decrease their actual output by the small amount their ramp rates will allow in a 5 minute period, while in a constrained network they will face a greater risk of NEMDE constraining them down to ever lower levels in future intervals. This would leave them exposed to being unable to secure a sufficient dispatch quantity to defend their hedging contracts. Snowy Hydro's view is that, in most cases, generators will achieve better overall outcomes by not participating in the CRM and physically dispatching their units at the higher level. Participating in the CRM would be operationally complex, requiring multiple rebids of energy and CRM bids. This would place increased burden on scheduling staff during already operationally-complex periods of network constraint and high prices.

Timing of the work being completed

The consultation period for transmission access reform is too short. The Commission's timeline, in which it proposes to make a recommendation to Ministers by September 2024, is not sufficient to have a detailed discussion. More time should be taken to assess all options, including modelling and testing, to avoid the risk of error.

Survey at the end of the submission

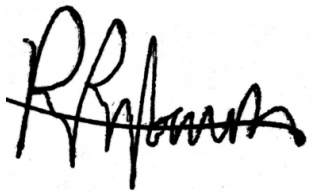
In the Appendix we set out the survey with alternative industry questions, in addition to what has been proposed by the Commission.

About Snowy Hydro

Snowy Hydro Limited is a producer, supplier, trader and retailer of energy in the National Electricity Market ('NEM') and a leading provider of risk management financial hedge contracts. We are an integrated energy company with more than 5,500 megawatts (MW) of generating capacity. We are one of Australia's largest renewable generators, the third largest generator by capacity and the fourth largest retailer in the NEM through our award-winning retail energy companies - Red Energy and Lumo Energy.

Snowy Hydro appreciates the opportunity to respond to the Commission on the Transmission access reform Consultation Paper. Any questions about this submission should be addressed to panos.priftakis@snowyhydro.com.au.

Yours sincerely,



Panos Priftakis
Head of Wholesale Regulation
Snowy Hydro

Appendix

Industry stakeholder feedback guide – Transmission Access reform

RE - AEMC Consultation Paper - Transmission Access reform – April 2024 EPR0098

The AEMC has published a Stakeholder Feedback Template alongside the consultation paper for the Transmission Access Reform project.

The AEMC's list of consultation questions laid out in the template represent a good start. However, it is critical that detailed industry perspectives are drawn out, particularly as these relate to the material issues identified over the last few years of stakeholder consultation.

This document draws out those detailed issues and is intended to complement the AEMC's feedback template. Questions have been prepared by a group of industry participants who have had extensive experience in the development of the TAR process. They are intended to add to the depth and quality of stakeholder feedback to the AEMC's processes.

Stakeholders are invited to amend or add to this document as they see fit – it is intended as a guide only and is not an exhaustive description of all the issues. Stakeholders are also welcome to use this template as the basis of their submission, recognising that AEMC questions and industry questions have been purposefully separated.

Submissions are to be lodged via the AEMC's website by **6 June 2024**.

SUBMITTER DETAILS

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Testing and modelling the hybrid model

Feedback on cost benefit analysis (CBA) conducted in 2023

AEMC Question 1: Feedback on cost benefit analysis (CBA) conducted in 2023

What are stakeholder views on the assumptions used in the CBA?

Industry's additional questions for consideration:

(a) Do you consider NERA's CBA modelling of COGATI in 2020 and CMM/CRM updated analysis in 2023 to be an accurate Cost Benefit Analysis of the current (Priority Access and Congestion Relief Market) hybrid model? Why / why not?

(b) Do you consider the Cost Benefit Analysis appropriately reflects the impact on financial markets? If not, do you consider that financial market impacts would likely have a material impact on a CBA?

(c) Do you support a new Cost Benefit Analysis being undertaken of the model ultimately recommended by the AEMC even if it causes a delay in the decision process? Why do you consider this necessary or unnecessary?

The ESB's cost benefit analysis in February 2023 (ESB CBA) found that the hybrid model would result in $2.1-5.9b in benefits for consumers, and emissions reductions of 23m tonnes.[12] Since that time stakeholders have raised doubts about the ESB's assumptions. It is critical that a new, up-to-date cost benefit analysis is commissioned.

- The ESB CBA found that implementing the hybrid model would impose substantial costs on AEMO and participants. A co-optimised CRM would further increase these costs, and this needs to be examined in more detail. As the Commission notes about co-optimisation: *"AEMO has some concerns, including that it would be more costly and complex to implement in NEMDE, there may be impacts on settlement residues and concerns over whether CRM bidding in the co-optimised dispatch could undermine priority access."*[13]

- The ESB CBA takes an overly benign view of the impact of the CRM on the contracts market, on the basis that the CRM is opt-in and therefore would not disrupt on foot contracts. As discussed below, however, the voluntary nature of CRM does not remedy the risk of contract disruption. This needs to be taken into account in the modelling.
    - As raised in AFMA's previous submissions[14] to the ESB, substantial changes to NEM dispatch may have an adverse effect on participant's ability to hedge electricity price risks. This would have a substantial bearing on the costs and benefits of the reforms.

- The Commission assumes very high participation rates in the CRM, of 70% or higher. Feedback from market participants suggest this is unrealistic; the Commission should, therefore, model participation rates of 50% or lower.

- The Commission refers to the NERA CBA but does not mention the critical feedback from a number of market participants. Snowy Hydro commissioned

[12] Estimating the Impact of the Congestion Management Model and Congestion Relief Market on the NEM Prepared for the Energy Security Board of Australia 10 February 2023

[13] AEMC, Transmission access reform, Consultation paper, 24 April 2024

[14] Australian Financial Markets Association (AFMA), 2023, Transmission Access Reform – Consultation Paper, <<https://www.datocms-assets.com/32572/1686879732-afma-esb-transmission-access-consultation-paper.pdf >>

Baringa Partners to review the NERA CBA (Barina Report),[15] which found that access reform was likely to result in a market disbenefit, once more realistic assumptions were adopted.

Feedback on prototyping

AEMC Question 2: Feedback on prototyping

What are stakeholder views on the result of the prototyping analysis? Is there any additional analysis that would be useful?

Industry's additional questions for consideration:

(a) As stated in the Paper (p. 25), last year's prototyping analysis of the hybrid model showed that wholesale prices were higher in 31% of the cases and a highest priority access generator was curtailed more in 30% of the cases analysed compared to the status quo.

Do you think the materiality and implication of these identified issues has been adequately addressed in the Paper? If not, what additional analysis do you consider is required?

How significant do you consider the issues to be?

(b) Do you consider sufficient analysis has been undertaken to explore how the CRM and Priority Access models will work in combination?

Snowy Hydro welcomes the prototyping that has been undertaken as it allows for a greater understanding on the impact the changes made by implementing priority access and CRM will have on the NEM.

There are significant concerns that the "hard" priority approach moves RRP significantly and leads to undesirable system outcomes like increased counter price flows as noted by the Commission. There should be further assessment undertaken on this as it leads to only mandating the CRM to receive the incentives for efficient physical dispatch.

Specifically the Consultation Paper notes that *"priority access leads to less efficient dispatch which can impact RRPs (specifically the access RRP). Overall 31% of cases showed a >5% rise in at least one NEM region. 13% of cases showed a >25% rise in at least one region."*[16] An increase in the RRP would ultimately lead to an increase in prices to consumers which needs to be addressed.

It is therefore important that should the Commission decide on the hard priority access option then further work needs to be undertaken otherwise the findings

[15] Snowy Hydro, 2020, "Transmission access reform: Updated technical specifications and cost-benefit analysis", <<https://www.aemc.gov.au/sites/default/files/2020-10/EPR0073%20-%20Snowy%20Hydro%20submission%20COGATI%20interim%20report%2019Oct2020.pdf >>

[16] AEMC, Transmission access reform, Consultation paper, 24 April 2024

show that soft prioritisation may reduce cannibalisation outcomes compared to the status quo without significantly increasing the RRP.

The key technical concerns Snowy Hydro has with the priority access model include

- The model would make the last generator connected bear the full volume risk, thereby incentivising generators not to connect the last generator in the first place
- It would lead to additional "headroom" being left on the grid to cater for low hours of constraint, thereby leading to inefficient investment in the network (n-2) basis. Transmission line outages would complicate this as these are relatively rare but coincide with times of high prices and need to defend contracts. If so that could mean that each point in the network will be built so that there is no congestion even when there is an outage which would be very costly.

Feedback on modelling the hybrid model

AEMC Question 3: Feedback on modelling the hybrid model

Noting that this work is still being completed, do stakeholders have any initial views on how modelling priority access would impact investment decisions?

Industry's additional questions for consideration:

(a) After the hybrid model starts (i.e. in 2028), what effect will Priority Access have on new development projects achieving FID? Will they find it easier or harder, and why?

(b) Do you consider that the risks with implementing the hybrid model have been adequately considered and addressed? What are the key risks and how serious are they? What would be the advantages and disadvantages of not implementing the hybrid model?

(c) What do you consider the impact of the hybrid model will be on emissions? Is a technology-neutral approach granting highest priority access to thermal (and renewable) incumbent generators appropriate? Has the role of emission reductions objective in the NEO been considered appropriately?

(d) What matters need to be considered for modelling the effects of the hybrid model on investment in long lead time assets, such as pumped hydro or other forms of storage?

(e) In regards to protecting REZ access rights, do you consider that alternatives to the hybrid model, such as the various 'controlled access' models flagged by NSW and QLD, might form a viable alternative to the hybrid model?

Snowy Hydro makes the following additional observations about priority access:

- ease of implementation, for participants and AEMO, should be a key design

consideration;

- the impact of priority access on NEMDE (particularly 'hard' versions of priority access) should be investigated in detail;
- longer lead time pumped hydro projects should not be unfairly disadvantaged over shorter lead time renewables, via 'queue jumping' - this would be addressed by structuring the BPF according to generator type, as proposed above;
- legacy generators (including generators either commissioned or committed at the time that priority access is implemented) should be grandfathered, such that they receive the highest dispatch priority until they retire.
- The model would make the last generator connected bear the full volume risk, thereby incentivising generators not to connect the last generator in the first place
- It would lead to additional "headroom" being left on the grid to cater for low hours of constraint, thereby leading to inefficient investment in the network (n-2) basis. Transmission line outages would complicate this as these are relatively rare but coincide with times of high prices and need to defend contracts. If so that could mean that each point in the network will be built so that there is no congestion even when there is an outage which would be very costly.

Assessment of key model options

Assessment of priority access allocation models

AEMC Question 4: Assessment of priority access allocation models

Each model option outlined in this section addresses the problem and reform objectives to different degrees.

Which model option do you prefer and why?

Industry's additional questions for consideration:

(a) For the model selected in your response to AEMC's Q4, do you consider this model will benefit your business or organisation? Do you think it will benefit the electricity market as a whole? Please explain your rationale.

(b) What effect would grandfathering the highest priority access for existing generators have on coal retirement decisions?

Assessment of CRM implementation approaches

AEMC Question 5: Assessment of CRM implementation approaches

What are the relative advantages and disadvantages of each design?

Do stakeholders have a preferred design and if so, why?

Industry's additional questions for consideration:

(a) For the preferred model design selected in your response to AEMC's Q5, do you consider this model will benefit your business or organisation? Do you think it will benefit the electricity market as a whole? Please explain your rationale.

The Commission notes in the Consultation Paper that there are theoretical benefits of co-optimisation for CRM that have significant promise. Snowy Hydro however shares the same concerns AEMO has highlighted regarding potential for unfunded settlements, significant costs and whether NEMDE could make the changes required. AEMO highlights the key concerns associated with the CRM model, that although there could be value using the model it would only likely be used by Snowy Hydro a few hours a years at a significant cost on consumers to implement.

Specifically Snowy Hydro notes the following on the CRM proposal and our concerns:

- It is overly complex for questionable gain. CRM would have participants trading fuel costs between $0 and $300 while at the same time risking generation volume in the RRP market at Voll.
- The single dispatch interval examples the AEMC has put forward misses the flow on impacts into the future dispatch intervals, i.e. if a generator gives up volume in the CRM market in the first dispatch interval their physical output is lower for the following one, and there are no guarantees they can make up that volume. Even if they can recover tier dispatch target for the end of the next interval ramping would by definition lead to lower revenue.
- It does not work if some participants can opt in and others cannot. To keep the grid balanced there needs to be a sufficient number of generators facing a constraint opt in, otherwise NEMDE cannot maintain the demand/supply balance.
- Any future mandating would disrupt contract markets, and even the voluntary mechanism proceeding would lead to issues. Some generators such as ourselves would then need to insert disruption clauses into contracts such that contract volumes then referenced our local node prices not the regional reference node

All the above would tend to favour generators bidding out of the CRM market whenever there is congestion and only taking part when there is not, defeating the purpose of the proposal in the first place

(b) On page 64 of the Paper, it is stated:

"there could be a perception co-optimisation is less voluntary than the current lead model as CRM bids could affect or set the RRP that all participants face, including participants who do not opt into the CRM."

Do you consider the co-optimised CRM remains a voluntary model?

Do you have an adequate understanding of the operation and implications of the co-optimised CRM? If not, what further work is required?

Snowy Hydro does not support the co-optimised CRM model. In its original design, the CRM was voluntary. While that approach is still considered in this consultation, the new, 'co-optimised form' of the Congestion Relief Market (CRM), in which NEMDE would co-optimise Regional Reference Price (RRP) and CRM bids to produce a single dispatch price undermines the optional nature of the CRM, which was its biggest benefit.

It could be inferred that Energy Ministers were of the same view as the Communique from their February 2023 meeting states regarding mandating CRM and therefore local marginal price (LMP).

Key stakeholder concerns

Feedback on impact of the hybrid model on PPAs

AEMC Question 6: Feedback on impact of the hybrid model on PPAs?

What are stakeholder views on the observations and AEMC initial views regarding impacts of the hybrid model on PPAs?

We have PPA's that would still be in force. CRM would lead to complications for existing hedging contracts, which require generators to exchange the contract strike price for the spot price (currently, the RRP). This is a particular risk for PPAs, which can run for 15 - 20 years and may require expensive re-negotiation. It is also unclear how the PPA obligation requiring generators to maximise output will operate under the CRM.

Industry's additional questions for consideration:

(a) Does your organisation have PPAs that will still be in force in 2028? If so, how likely is it they will have to be renegotiated considering clauses covering obligations to maximise generation, change of law and/or market disruption? Do you expect these renegotiations to be easy?

We have PPA's that would still be in force. CRM would lead to complications for existing hedging contracts, which require generators to exchange the contract strike price for the spot price (currently, the RRP). This is a particular risk for PPAs, which can run for 15 - 20 years and may require expensive re-negotiation. It is also unclear how the PPA obligation requiring generators to maximise output will operate under the CRM.

(b) Should Energy Ministers make a final decision to implement the hybrid model this year, will this make negotiation of new PPAs next year easier, more difficult, or pretty much the same? Why would this be, and would the change be significant?

The proposed timeline, ie. completing the consultation by September 2024, is not realistic.

- It creates the risk of rushed decisions and errors in the design proposal.
- Further modelling, market testing and targeted trials are necessary before priority access and CRM can be assessed and a recommendation made to Ministers.

Feedback on impacts of the hybrid model on financial markets

AEMC Question 7: **Feedback on impacts of the hybrid model on financial markets**

What are stakeholder views on the impacts of the hybrid model on financial markets? Specifically:

a) How the proposed access model, or particular aspect(s) of the model, may impact

b) their ability to manage price risk in the market?

c) The subsequent impact that a reduced ability to manage price risk may then have on participants' hedging costs.

Confidential information has been omitted for the purposes of section 24 of the Australian Energy Market Commission Establishment Act 2004 (SA) and sections 31 and 48 of the National Electricity Law.

Industry's additional question for consideration:

Besides the impacts listed in AEMC's Question 7, what other impacts could the hybrid model have on financial markets?

Delaying CRM until the late 2020s or even early 2030s would not address these risks, particularly for PPAs. In Snowy Hydro's experience, the tenure of PPAs that

underwrite new wind and solar assets are 15 years, or longer, as this length of contracting period is required to secure project financing. Snowy Hydro has many PPAs that extend into the mid 2030s. The risk that these contracts - which provide long-term price stability for developers and offtakers - will be disrupted and need to be re-negotiated is very problematic .

Feedback on wide-reaching constraints

AEMC Question 8: Feedback on wide-reaching constraints

Do stakeholders consider that priority access could increase investment risk due to wide-reaching constraints?

Do stakeholders consider that there is value in implementing the dynamic grouping option for priority access to mitigate this concern?

Industry's additional questions for consideration:

(a) Comment - Even for new generators locating in areas of low curtailment, new developments would suffer much more curtailment for scheduled, and unscheduled, network outages compared to generators with the highest level access.

During network outages, should new developments experience much more of the resultant curtailment than grandfathered highest priority access generators? How difficult would it be for new generation to manage this risk?

(b) Even for new generators locating in areas of low curtailment, there is a risk that new constraint equations could emerge later, sometimes coincident with grid augmentations like PEC, for which they will suffer much more curtailment than generators with the highest level access.

For new constraint equations, should new developments experience much more of the resultant curtailment than grandfathered highest priority access generators?

How difficult would it be for new generation to manage this risk?

(c) Section 3.3 of the Paper describes further analysis to be undertaken by ACIL Allen.

What scenarios and impacts would you like to see this analysis evaluate to provide more clarity and confidence that investors will have more certainty and less risk after the scheme begins (in 2028)?

(d) The Paper notes that the dynamic grouping option "*has not been tested yet, or developed in any detail*" (p. vi).

Do you think an informed decision on this option is feasible this year? Do you support further consideration of this option?

Detailed design questions

Feedback on detailed priority access design choices

AEMC Question 9: Feedback on detailed priority access design choices

What are stakeholder views on the detailed priority access design questions and the AEMC's preferred positions?

Industry's additional question for consideration:

Does your organisation support implementation of Priority Access?

Feedback on detailed CRM design choices

AEMC Question 10: Feedback on detailed CRM design choices

Do stakeholders have further views on the detailed design choices for the CRM that were explored by the ESB? Are these views related to a preference for a two-step or co-optimised implementation approach discussed in Chapter 5?

What are stakeholder views on tethering, including the relative advantages and disadvantages of each design and any preference?

Industry's additional questions for consideration:

(a) The Paper notes the co-optimised implementation approach "*has not been developed to the level of detail as the two-stage dispatch*" (p.vii).

Do you consider an informed decision on this option feasible this year? Do you support further consideration of this option?

Snowy Hydro does not support the co-optimised CRM model. In its original design, the CRM was voluntary. While that approach is still considered in this consultation, the new, 'co-optimised form' of the Congestion Relief Market (CRM), in which NEMDE would co-optimise Regional Reference Price (RRP) and CRM bids to produce a single dispatch price undermines the optional nature of the CRM, which was its biggest benefit.

It could be inferred that Energy Ministers were of the same view as the Communique from their February 2023 meeting states regarding mandating CRM and therefore local marginal price (LMP),

(b) Does your organisation support implementation of the Congestion Relief Market?

Any gains from operating in the CRM would be comparatively small. Furthermore, Snowy Hydro considers that there will be relatively few periods when it would be profitable for it to participate in the CRM.

(c) If Energy Ministers made a final decision to implement the hybrid model, do you consider that investors and developers would have increased or decreased investment certainty, and why?
Other comments
Information on additional issues