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Australian Energy Market Commission

Submitted online

**TAR – Consultation Paper**

The Australian Financial Markets Association (AFMA) is responding to the Australian Energy Market Commission's (AEMC) Transmission Access Reform Consultation Paper.

AFMA is the leading financial markets industry association promoting efficiency, integrity and professionalism in Australia's financial markets, including the capital, credit, derivatives, foreign exchange, energy, carbon, and other specialist markets. Our membership base is comprised of over 130 of Australia's leading financial market participants, including many energy firms who are key participants in the National Electricity Market (NEM).

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**Key Points**

- **Major elements of the hybrid model remain unresolved.**
- **It is unlikely the AEMC will be able to develop an implementable model in 2024.**
- **Other policy initiatives have now addressed many of the issues transmission access reform was intended to resolve.**
- **Resources should be allocated to other workstreams that are more likely to deliver outcomes that will aid the energy market transition.**

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Transmission access reform has had a long and quixotic development process. The most recent phase commenced in 2019 with the AEMC's Coordination of Generation and Transmission Investment Review, but proposals for different forms of transmission access date back to the beginning of the NEM. All of these proposals have had to wrestle with the conflict between the theoretical economic efficiency transmission access reform could bring and the practical challenges it presents to both system operations and importantly participants' ability to manage risk. The inability to resolve these practical challenges combined with the high cost and implementation risk of the reforms has, to date, led policy makers to conclude that the benefits of transmission access reform are inadequate to justify its implementation.

AFMA's view is that after nearly six years of work, the AEMC has not been able to develop a transmission access reform proposal that is suitable for implementation and, given a number of major policy issues remain to be addressed, we consider it is unlikely they will be able to produce implementable recommendations by the end of 2024. During this time, a number of other policy proposals, notably; Renewable Energy Zones (REZ), improvements to the Integrated System Plan (ISP), the Capacity Investment Scheme (CIS), NSW's Long-Term Energy Service Agreements (LTESA) and jurisdictional approaches to controlled access, have or will address many of the issues transmission access reform was intended to resolve. AFMA therefore considers that there is no realistic prospect of implementing transmission access reform in the medium term and that policy and AEMO resources would be better allocated to other activities that are more likely to deliver results in an appropriate timeframe to meet the challenges of the energy market transition, such as the NEM 2030 review.

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The current consultation paper proposes new variants of the hybrid model presented in May 2023. AFMA's view is that, while these variants add additional complexity to the AEMC's previous proposals, at a basic level they are essentially the same as the previous options and fail to address the core concerns that the market has with this workstream. As a result, our submission reiterates our members' high-level concerns with transmission access reform, but does not address the proposals in detail except to point out areas where we consider major policy questions remain unresolved.

## 1. The policy challenge

Transmission access reform has been presented as a solution to a number of issues in the NEM, but the reform proposals tend to understate the extent to which it represents a fundamental redesign of the market that will have significant impacts on the operation of the system and participants' risk management arrangements. In its work the AEMC has come up with a range of increasingly complicated options to try and address stakeholders concerns about the impact of these reforms on the market, but for all the added complexity of each iteration, AFMA does not think that they have addressed stakeholders' fundamental concerns.

### 1.1. Nature of the problem

The terms of reference for this review identify the following four objectives:

- **Investment efficiency**: Better long-term signals for market participants to locate in areas where they can provide the most benefit to consumers, taking into account the impact on overall congestion.
- **Manage access risk**: Establish a level playing field that balances investor risk with the continued promotion of new entry that contributes to effective competition in the long-term interests of consumers.
- **Operational efficiency**: Remove incentives for non-cost reflective bidding to promote better use of the network in operational timeframes, resulting in more efficient dispatch outcomes and lower costs for consumers.
- **Incentivise congestion relief**: Create incentives for demand side and two-way technologies to locate where they are needed most and operate in ways that benefit the broader system.

AFMA is concerned that the current proposals for the hybrid model either do not effectively address these objectives or that other policy initiatives have or could address them more efficiently without requiring a fundamental redesign of the NEM.

The Energy Security Board's February 2023 cost benefit analysis identified benefits of $4.03b from the hybrid model reforms in the period to 2050.[1] Slightly over 88% of the benefit they identified came from improved locational decisions that resulted in more efficient investment in generation and transmission with the remainder coming from operational benefits. In isolation, $4.03b is a large number but spread over 25 years it amounts to an annual benefit of ~$161m which is a modest number in the context of a sector that AEMO anticipates will invest $121b[2] over the same period to facilitate the energy transition and where the face value of futures contracts in 2022 was >$90b.[3] In a market this size, minor changes to the assumptions underlying the cost benefit analysis, such as individual generation projects or small impacts on the derivative market, could easily erode or eliminate the identified benefits. The limited size of the identified benefits is most dramatically

[1] CRM+ Priority Access mid-point p54 ESB Cost benefit Analysis
[2] Draft 2024 ISP
[3] ASX

demonstrated by the Congestion Relief Market (CRM) component of the hybrid model which is the only part of the hybrid model that is intended to improve operational efficiency in the NEM. By itself the hybrid model is only anticipated to deliver a benefit of $490m to 2050, equivalent to $19.6m a year, which we consider this to be wholly inadequate to justify the costs and risks involved in implementing it.

All of the review's objectives, other than operational efficiency, relate at least in part to improving the efficiency of decisions in the investment timeframe. Partially because of the delays in developing a workable model for transmission access reform, a number of policy initiatives to improve the efficiency of generation and transmission investment have been developed (and in some cases implemented) while the transmission access reform work has been underway. Notably these include the development of REZs, enhancements to AEMO's ISP, the enhanced transmission information reforms and jurisdictional approaches to controlled access. Our view is that these reforms will achieve much of the benefit envisaged to be delivered by transmission access reform. In addition, the CIS and NSW's LTESA framework mean that governments will play a major role in generation location decisions, which we think reduces the value of and need for any locational market signals sent by transmission access reform.

A component of the benefit the Energy Security Board (ESB) identified was that the hybrid model would deliver a reduction in the cost of capital for generation proponents. AFMA wants to point out that our members, who are some of the largest and most sophisticated investors in the market, do not agree and consider that these reforms are likely to increase the cost of capital and that the CIS will have a greater impact in unlocking new investment. In particular, some of our banking members have pointed out that the reforms will introduce new project risks they are required to consider when assessing the credit profile of projects. These risks may make the assessment process more complicated, resource intensive, impact the level of gearing projects are able to obtain, and ultimately impacting the cost of capital.

We raise these points to emphasis that the benefits identified in the cost benefit analysis are hypothetical representing one firm's analysis of future behaviour and that its conclusions are contested broadly within the energy industry. Members also regularly draw attention to the assumption in the cost benefit analysis of an 80% CRM participation rate which they consider to be highly unlikely at least in the early years of the scheme. Furthermore, the various changes that the AEMC has proposed to the CRM such as co-optimisation and tethering we believe are likely to increase the implementation costs significantly from the numbers used in the cost benefit analysis.

### 1.2. Stakeholder concerns

Stakeholders have identified three fundamental concerns with the proposed reforms that they consider could undermine the potential benefits:

1. Impact of the reforms on the financial market
2. Impact of the reforms on Power Purchase Agreements (PPA)
3. Treatment of wide-reaching constraints

Other than some legal analysis of the impact of the reforms on PPAs, the consultation paper does not address these issues. AFMA consider that the impact of the proposed reforms on the financial market should be at the centre of any analysis of the benefits of transmission access reform. We are therefore concerned that, to date, the AEMC has not seriously engaged with the impact of the reforms on the financial market. As noted by the AEMC, AFMA has consistently maintained that transmission access reform poses a fundamental challenge to the financial market as it has the potential to introduce volatile and problematic basis risk between the risks faced by generators and

those faced by retailers. Basis risk is often notoriously difficult to manage and undermines incentives for financial contracting which could increase the cost to retailers of managing their exposure to the NEM spot price or in a worst-case scenario, mean that they are unable to hedge their spot price risks. We consider that the ESB's cost benefit analysis lacks credibility without a full consideration of the impact of the reforms on the financial market; and that there is little benefit in conducting detailed design work until the impact of these reforms on the financial market is understood.

While AFMA's primary interest is in the financial market we understand that a significant number of stakeholders consider that resolving the treatment of wide-reaching constraints and the impact of the reforms on PPAs are similarly critical if these reforms are to deliver benefits to the market. The consultation paper does not deal with any of the stakeholder concerns adequately, essentially not providing any options to address stakeholder concerns about wide-ranging constraints and only considering the technical legal aspects of amending PPAs without addressing the commercial knock-on effects to existing financing agreements of reopening existing PPAs. Given their fundamental importance to the success of the reforms, we question how the AEMC can produce an implementable model by the end of 2024 when it has not yet provided stakeholders with credible options to respond to.

### 1.3. The AEMC's current task

The AEMC has played a key role advocating for transmission access reform to be considered as part of the energy market transition, including recommending to the Energy and Climate Change Ministerial Council that the hybrid model should be investigated as the preferred option. But the AEMC's current limited mandate of progressing the design of the hybrid model and providing final recommendations to Energy Ministers on the best possible version of that model is potentially problematic as it limits the AEMC from considering if:

a) the hybrid model should be implemented at all; and
b) other policy options might better achieve Energy Minister's objectives.

AFMA considers the AEMC's final recommendations should include an assessment of whether the hybrid model should be implemented and if alternative policies would be preferable.

**AFMA Recommendations**

i. Before developing final recommendations, the AEMC should develop and consult publicly on responses to stakeholder concerns regarding the:
   a. Impact of the reforms on the financial market
   b. Impact of the reforms on PPAs
   c. Treatment of wide-reaching constraints

ii. The AEMC's final recommendations to Energy Ministers should consider if the hybrid model should be implemented and if alternative policies would be preferable.

## 2. Financial market concerns

As discussed in AFMA's previous submissions,[4] the central challenge of transmission access reform for the financial market is that it introduces basis risk which challenges the ability of generators to sell hedge cover and increase the cost of hedge cover to retailers. According to the AER's recent draft Default Market Offer decision the wholesale cost of energy, which is essentially the cost of

[4] ESB Consultation Paper (May 2023); ESB Directions Paper (Dec 2022); ESB Consultation Paper (June 2022)

hedging a retailers load in the financial market, will make up between 33-44% of a typical small customer bill in 2024/25.[5] Across all distribution regions the wholesale cost is broadly equivalent to the total cost of both distribution and transmission use of system charges and for the majority of customers who are located in metropolitan areas wholesale cost is the single largest component of their bill. AFMA is therefore concerned that there is potential for these reforms to significantly increase customer bills by making hedge cover more expensive or worse, unavailable to retailers.

The challenge presented by transmission access reform to the financial market was most obvious in the original COGATI proposal and the Congestion Management Model as under both models, generators would be paid local marginal prices while retailers needed to manage risks linked to the regional reference price (RRP). As discussed in our previous submissions, these models introduced basis risk which undermines generators and retailers' incentives to hedge as their risks are no longer tied to the same price with retailers facing the RRP and generators facing local prices. The CRM is presented as removing this problem by making participation optional, and under the original CEC/ Edify proposal this may have been the case. The problem with the hybrid model is that it combines the CRM with a priority access framework that the AEMC acknowledges will result in less efficient dispatch than the current arrangements. This means that generators are faced with the choice between remaining exposed to the RRP but facing volume risk as they receive less favourable dispatch outcomes under priority access or participating in the CRM to get greater certainty over the volume, they are able to dispatch but then facing the price risk of local pricing. This issue will be particularly acute for new entrants who will generally have lower priority than incumbents.

Our members consider that generators' ability to offer hedge contracts is likely to be reduced compared to under the existing arrangements regardless of if they choose to participate in the CRM. If they do not participate, the prospect of receiving inferior dispatch outcomes will mean that they have to reduce the volume of contracts they are able to sell relative to their units' capacity to a level that they feel confident they can support with the reduce output of their plant. If they participate in the CRM, they will have confidence that their plant can be dispatched but cannot guarantee that they will receive RRP for all their output so will only be able to sell a reduced volume of contracts at the RRP. In either case, the number of contracts available to retailers is likely to be reduced, which we consider to be a particularly concerning phenomenon in the current market where the retirement of large amounts of scheduled generation is already reducing liquidity to a concerning degree. It is also worth noting that reducing the volume of hedge contracts that units are able to sell is likely to complicate the business case for both investment in new controllable capacity and the continued operation of existing units.

As called out in the consultation paper, the AEMC has recently increased its engagement with AFMA to improve their understanding of the impact of the proposed reforms on the financial market. While we welcome this engagement and appreciate the AEMC's openness to improving their understanding of the impact of these reform on the financial market, we want to make clear that we are yet to see the fruits of these discussions reflected in the AEMC's proposals. We consider that this work should have been done as part of the ESB's original fact-finding activities before developing any concrete reform proposals. We also believe that our current discussions with the AEMC are highlighting that transmission access reform is an extremely complicated way to address challenges around generator location decisions with many unforeseen consequences. Our discussions with the AEMC have underlined that appropriate consideration of the financial market impacts of transmission access reform will have quite dramatic impacts on the shape of the proposed reforms and decisions about if they should proceed at all.

To do this work thoroughly we consider that the AEMC would need to revise the cost benefit analysis, develop new transmission access models based on the learnings from this analysis and

[5] Draft Decision Default Market Offer Prices 2024-25

consider if alternative approach would be preferable. We cannot see how this could be completed with appropriate public consultation and rigour by the end of 2024.

**AFMA Recommendations**

iii. Before producing final recommendations, the AEMC should undertake further cost benefit analysis to consider the impact of the hybrid model on the financial market.

iv. The AEMC should conduct public consultation on any changes to the models resulting from the additional analysis.

## 3. Current proposals

As discussed above, AFMA considers that there a number of fundamental policy issues need to be addressed before there is value in developing detailed transmission access models. We consider that the current set of proposals, other than the proposed co-optimised version of the CRM, are in essence similar to those previously presented by the ESB and do not provide new solutions to the concerns raised by various stakeholders. AFMA has therefore not engaged deeply with these models but provides the following high-level comments where we consider that the proposals raise significant new policy challenges that need to be resolved.

### 3.1. Priority Access

#### 3.1.1. Locational signals

The ESB's cost benefit analysis showed that the vast majority of the benefits from transmission access came from improving locational signals by introducing priority access, but the ESB and AEMC's work since that analysis has shown that implementing priority access by itself results in poorer dispatch outcomes and higher costs. As discussed above, AFMA considers that jurisdictions' work developing REZs and exploring controlled access, will largely achieve the benefits that priority access is intended to achieve by providing enhanced locational signals.

At this stage much of the interest in implementing priority access seems to be as a mechanism to ensure high levels of access for REZs, rather than as originally designed to send market signals to generators connecting in an open access framework. AFMA appreciates jurisdictions desire to ensure regulatory settings are appropriate to support REZs but considers that if this is their primary aim other policy measures, such as planning measures to protect the capacity of REZs, could be put in place more quickly, at lower cost and with less disruption to the market. We particularly want to draw attention to the work we understand a number of jurisdictions are undertaking to explore limited controlled access to preserve REZ's access to the network. We consider that it is likely that the jurisdictional controlled access arrangements will be implemented before the AEMC's proposed reforms, which will greatly reduce the need for and benefit of the reforms. We also want to note that the AEMC adopted a similar controlled access approach in its 2021 dedicated connection assets rule change and suggest it should consider if a similar approach might be appropriate for REZs.[6]

#### 3.1.2. Duration of prioritisation

One of the major unresolved policy issues for priority access is how long prioritisation should endure. Currently the AEMC is considering if priority should persist for the actual life of the asset or its theoretical economic life. The AEMC has expressed a preference for the theoretical economic life. Our members disagree as they consider it is currently difficult to estimate when existing plants will close as the decision is influenced by many unpredictable factors, including; the speed at which replacement assets are built and connected, the extent to which new assets are able to completely replace existing generators and a range of government policy interventions designed to contain

[6] https://www.aemc.gov.au/rule-changes/connection-dedicated-connection-assets

costs and ensure system reliability. They therefore consider that granting priority for the actual life of an asset should be the preferred approach.

### 3.2. CRM

#### 3.2.1. Co-optimisation

The fundamental features of the CRM as developed by the ESB and AEMC are that; it is optional, the congestion price is determined separately from the energy price, and it does not change the RRP. We are concerned that the co-optimised model presented for the first time in this consultation paper deviates profoundly from these principles as under it the RRP will be developed in a single co-optimised dispatch run combining energy and transmission access. Members consider the co-optimised model is fundamentally different from previous CRM proposals as all participants will be exposed to a revised RRP that reflects the cost of congestion management regardless of whether they opt-in to the CRM or not. Given all participants will be exposed to this price it also raises questions about how optional the CRM would be given that there is no way to avoid the new co-optimised RRP. It is also unclear how it would work with priority access as access and physical dispatch will be determined in a single co-optimised process.

AFMA's main observation on the proposed co-optimised model is that it is completely new and inconsistent with the ESB and AEMC's previous CRM proposals. The model has not been subject to cost benefit analysis and the consultation paper provides limited information about how it would operate while noting that AEMO considers that implementation is likely to be more challenging than the two-stage approach. AFMA considers that the late introduction of an entirely new approach to congestion management is inappropriate as there is inadequate time to allow proper analysis of how it would function and to consult on the results of that analysis.

AFMA is concerned that the AEMC has chosen to devote resources to creating an entirely new model so late in their project. The co-optimised model was developed in response to the results of modelling which showed the CRM was likely to increase the RRP which undermined the value of the reforms. We consider that the development of this proposal is emblematic of the way the AEMC has approached transmissions access reform as, rather than engaging with the ongoing consistent feedback from stakeholders that there are fundamental policy issues with the reforms, they focus on developing intellectually interesting changes to ever more complicated models in the hope that this will resolve the issues the proposed reforms create. We think this choice highlights how far away the AEMC is from developing a model that is fit for implementation as even this late in the process, they are continuing to develop new reform proposals rather than taking concrete steps to implement their policy proposals.

#### 3.2.2. Tethering and dispatch

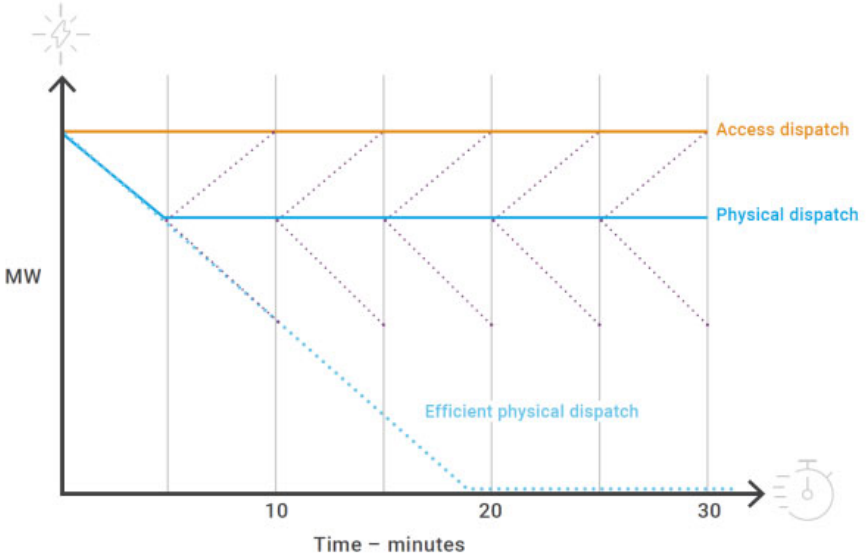
One of the main questions for our members about the CRM is why a high priority generator who has been dispatched in the access run wish to participate in the CRM? They have struggled with this concept as, currently, generators looking to defend hedge positions willingly make compromises to ensure the unit is available to be dispatched at the desired level during periods when they need to manage their exposure to the market under their hedge contracts, including running units at inefficient output levels or at uneconomic prices for periods of time. They therefore have been confused about why a unit would ever be incentivised to decrease output during periods when constraints are binding, and prices are likely to be high.

The AEMC's discussion of tethering has helped members to understand how this mechanism is anticipated to work but raises further questions about the physical implementation of the CRM without tethering and the benefit of introducing it with tethering. One of AFMA's persistent criticisms of the CRM has been that the analysis of its merits tends to over-focus on dispatch in a single 5-minute interval, rather than the longer intervals relevant to hedging contracts. We consider this is visible in the approach the AEMC is taking to tethering. 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.

Tethering was developed in response to AEMO's concerns to ensure access and CRM dispatch remain reasonably close to each other. As proposed in the consultation paper, tethering would mean that a high priority unit that is participating in the CRM can effectively only receive CRM payments for the difference between the level of dispatch it desires to meet its obligations under its hedge contracts and its CRM dispatch for a single 5-minute period.

Figure 7.2: Hypothetical incentives under tethered and untethered design




Note: solid blue line represents the hypothetical physical dispatch under the tethered option, the dotted blue line represents the hypothetical physical dispatch under the untethered option.

During that first 5 minutes, the generator can use the CRM to compensate it for the forgone spot revenue, but in future intervals the generator must choose between continuing to be backed down and therefore receiving less spot market and CRM revenue or bidding to attempt to maintain its access dispatch at its original level, as shown in the AEMC's example above.

Our members cannot see why a high priority generator would choose to participate in the CRM on these terms. 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 which would leave them exposed under their hedging contracts. Their view is that in most cases, generators will achieve better overall outcomes by not participating in the CRM and dispatching their units at the higher level. They also note that participating in the CRM would be operationally complex requiring multiple rebids of energy and CRM bids which would place greater burden on scheduling staff during already operationally complex periods of network constraint and high prices. Our member's view is that the limited benefits of a marginal reduction in fuel cost are unlikely to be worth the increased operational risk.

We also question the impact of introducing tethering on the cost benefit analysis if participants' ability to participate in the CRM is limited by the need to prevent the access and CRM dispatches diverging too far. Our view is that, as with many elements of the hybrid model, the AEMC has only just begun exploring the implications of tethering and that the implications of their initial work are that significantly more development is required before it would be ready to implement and we consider this is unlikely to be completed in the time available to the AEMC.

**AFMA Recommendations**

v. Policy makers should consider other policy measures to preserve the capacity of REZs, if this is considered necessary.

vi. Priority should be granted for the actual life of an asset.

vii. The co-optimised CRM model is fundamentally different to earlier CRM proposals and the AEMC should not make any recommendations about it until it has undergone significant further consultation and cost benefit analysis.

viii. Substantially more work is required to determine if the proposed tethering arrangements are workable.

AFMA would welcome the opportunity to discuss this submission further and would be pleased to provide further information or clarity as required. Please contact me at lgamble@afma.com.au or 02 9776 7994.

Yours sincerely,

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