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Mr John Pierce  
Chair - Australian Energy Market Commission  
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Dear Mr Pierce

### **Coordination of Generation and Transmission Investment Implementation - Access and Charging Consultation Paper**

Thank you for the opportunity to comment on the Australian Energy Market Commission's (AEMC) 'Coordination of Generation and Transmission Investment (CoGaTI) Implementation - Access and Charging' Consultation Paper.

We welcome the AEMC's work to progress access and charging reform to improve the coordination of generation and transmission investment. We support the evolution of the National Energy Market (NEM) to promote:

- better price signals to market participants around network congestion; and
- better allocation of the risk of poor coordination in generation and transmission investment.

As the consultation paper notes, the first phase of the CoGaTI review has commenced a work program to make AEMO's integrated system plan (the ISP) actionable, and to streamline the integration between that planning process and the regulatory information test processes, which we administer. We expect that this enhanced planning process will contribute to improved coordination of generation and transmission investment. However, as noted in the consultation paper, this planning process will inevitably be complex and challenging. The sector is seeing significant quantities of renewable generation seeking to connect at geographically dispersed parts of the network and often in parts of the network where there is insufficient network capacity and congestion exists. The uncertainty of the future configuration of generation leads to a risk of networks investing in augmentations that are ultimately not necessary or, conversely, not investing in the right places in a timely manner. As we have noted in previous submissions to the inaugural CoGaTI review, the risk of inefficient transmission investment currently entirely sits with customers who alone pay for transmission charges.

We therefore support the objectives of the currently proposed reforms to better allocate the risk of transmission investment to those parties best placed to manage it, and to provide them with the tools to do so.

We suggest that consideration of reforms to the charging and access model be guided by the following overarching principles:

- Risk should be allocated to the parties in the best position to manage those risks;
- It is important to facilitate the development of access reforms that deliver better signals to TNSPs of where generators seek to invest and signals to generators of the cost of the TNSP investment;
- Any charging and access framework should be non-discriminatory, technologically neutral and adaptable to different physical configurations of the grid;
- Additional sophistication in charging models should be developed with regard to the transparency and comprehensibility of the approach so stakeholders are able to respond efficiently to those price signals; and
- Any reforms should be developed having regard to their role and fit within the broader reform program, in particular:
  - the work program to make the ISP actionable;<sup>1</sup> and
  - the Energy Security Board’s work program relating to Post-2025 design of the NEM.<sup>2</sup>

In the remainder of this submission, we set out some preliminary thoughts with respect to the particular options and models addressed in the AEMC’s consultation paper.

### **Access reforms**

In its consultation paper, the AEMC has identified a three-phase process of access reforms as follows:<sup>3</sup>

Stage	Description	Timeline
1	Introduce dynamic regional pricing	July 2022
2	Allow information arising from dynamic regional pricing to accrue and inform transmission planning	July 2022 to July 2023
3	Introduce optional firm access	July 2023

Source: AEMC, COGATI implementation—Access and charging, March 2019, pp. 15–16.

#### *Dynamic Regional Pricing*

Under the current NEM arrangements, supply-side settlement is regional at state-level and only dynamic from year to year to the extent that participants at different nodes on the network face different Marginal Loss Factors.

We agree with the AEMC that more granular division of these regions would be likely to send better price signals about the costs of congestion on the network. We agree with the long-

<sup>1</sup> AEMC, *Final Report: Coordination of Generation and Transmission Investment*, 21 December 2018, Recommendation 1, p. 10-11.

<sup>2</sup> ESB, *Post 2025 Market design for the National Electricity Market (NEM)*, March 2019, Available at: <http://coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/ESB%20-%20Post%202025%20Market%20Design%20-%20Scope%20and%20Forward%20Work%20Plan%20-%2020190322.docx.pdf>

<sup>3</sup> AEMC, *Consultation Paper: COGATI implementation—Access and charging*, March 2019, p. 15.

term importance of improving network locational signals in order to better guide generation investment and, in turn, promote more efficient transmission investment and potentially address unpredictable changes to MLFs. For those reasons, we support further consideration of this option, and agree that it should be the first phases of access reforms. However, we recognise that this is a material change to NEM design and it will be important to undertake further analysis of its potential consequences, as flagged in the AEMC paper.

To that end, we recommend that development of a dynamic regional pricing model must also include consultation on how to manage the following risks:

- **challenges in finding or developing hedging instruments for participants to manage price risks**—as noted by the AEMC,<sup>4</sup> analysis needs to be done to assess the impact that the proposed access regime may have on the electricity contracts market. Increasingly granular supply-side settlement in the NEM might mean that the current range of hedging instruments will become insufficient. Noting the role that the allocation of settlement residues will play in addressing this risk, we feel it will be important to ensure this risk is fully addressed in development of the model in order to mitigate against contract illiquidity as a barrier to entry for new participants.
- **the risk that greater opportunities arise for the exercise of market power**—with only one or a small number of generators at a node or in a smaller dynamic region, there may be greater potential for the exercise of market power. However, we also agree with the AEMC that the more granular pricing has the potential to make the exercise of market power more transparent.
- **challenges in monitoring and reporting on these potential risks**—we recommend consideration of what sort of data would or should be available in our role of reporting on wholesale markets to address the above and any other potential risks. The ESB's consideration of whether to remove restrictions imposed under section 18D of the NEL will have implications for our ability to undertake this role effectively.<sup>5</sup>

We support consideration of what granular constraint information is presently available and how this could best be communicated to current and potential market participants to promote a better transition into a more sophisticated and dynamic settlement model. Further to this point, we also recommend consideration of whether there is merit in trialling dynamic regional pricing first in specific regions, for assessment, before rolling it out to the entire NEM. If possible, trials might facilitate a better understanding of how many pricing regions arise and a proper assessment of the associated market impacts, such as the potential for market power at certain regions.

We recognise that, under the AEMC's 'straw-person' access model presented in the consultation paper, generators would eventually have the option to purchase firm access to receive the regional reference price. In doing so, generators would be able to mitigate some of the challenges in hedging under a dynamic regional price. However, as noted in the supplementary information paper, it is conceivable that dynamic regional pricing may be either a complement or an alternative to generators underwriting transmission investment.<sup>6</sup> It may be the case that it is not achievable to design a workable and effective model for generators underwriting transmission investment. In that case, we consider dynamic regional pricing remains a viable reform option which could improve congestion-related price signals and mitigate disorderly bidding.

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<sup>4</sup> AEMC, Supplementary information paper—CoGaTI implementation—Access and charging, April 2019, p. 17.

<sup>5</sup> Energy Security Board, Consultation paper—ACCC Retail Electricity Pricing Enquiry: Recommendation 41, February 2019.

<sup>6</sup> AEMC, Supplementary information paper—CoGaTI implementation—Access and charging, April 2019, p. 19.

Further, we recommend consideration of alternative approaches to the allocation of settlement residues beyond doing so based on generators' capacity. In principle, we consider it is unclear that the settlement revenues should automatically be allocated to generators. While capacity is a relatively straightforward and predictable indicator for participants, we believe an auction-based approach may be preferable in utilising settlement revenue as a partial hedge to mitigate the risks arising from dynamic regional pricing—noting this may only be transiently necessary in the event some kind of generator firm access model is implemented. We recommend consideration of whether the proceeds of these auctions could go towards underwriting TUOS costs faced by customers.

Finally, we agree with the AEMC that it will be important to resolve arrangements for grid-connected storage under a dynamic regional pricing model. Otherwise, there is the potential for inefficient incentives for storage that can both demand from and supply to the market where, in the presence of constraints, the dynamic regional pricing model simultaneously requires:

- supply-side settlement at the dynamic regional price
- demand-side settlement at the regional reference price.

#### *Generation underwriting of transmission investment*

The AEMC has proposed that, following a period of time under which participants have better access to those congestion pricing signals, the next phase of access reform would allow generators to obtain firm transmission access, in order to incentivise them to underwrite transmission investment. In the AEMC's 'straw-person' model, this would allow a generator that had been constrained off to earn the difference between the local price and the regional reference price on its access amount. This is designed to offset the risk of a more dynamic regional/nodal price and potentially enable access to traditional hedging instruments.

We expect that the work program to make the ISP actionable will enhance centralised coordination of transmission planning and in doing so will promote the long-term interests of consumers. However, we agree with the AEMC that consumers face considerable risk where this process may result in inefficient expenditure. Despite the robust checks and balances that can be built into this process, we consider there remains risk in the presence of substantial uncertainty regarding future patterns of generation and consumption. For that reason, we support consideration of access models under which generators are better incentivised to underwrite the costs of transmission investment beyond the shallow-connection costs that they currently fund.

Further, we agree that reforms to the access model have the potential to mitigate other current market challenges identified by the AEMC. These include issues such as:

- the challenges associated with accommodating REZs under the current access framework
- better allocation between transmission networks and generators of the financial risk arising from network outages

As noted by the AEMC, the design challenges associated with such an approach have in the past proven difficult to address. For these reasons, we support consideration of a broad range of alternative approaches in addition to the proposed firm access model, to ensure a model is pursued that is most appropriate and effective.

In our view, it is important that any model:

- is workable under different physical configurations of the network—that is, any generator underwriting transmission investment could have clear expectations about the level of firmness of access that they could expect, even where there are changes in generation connections on interdependent parts of the network
- offers equivalent opportunity for all generators to purchase access rights—for example, it might be that rights are auctioned periodically over an investment horizon. This should mitigate the risk that access to rights presents a barrier to entry for new participants.

Finally, we agree with the AEMC that any reforms of this magnitude should allow for a staged, gradual transition approach of the sort included by the AEMC in its consultation paper. At this stage, we do not have a view on the particular periods of time for each stage of a transition process. However, we agree with the AEMC that any potential reforms must be considered in the context of the ESB's consultation on market design for the NEM for 2025 and beyond.

### **Charging reforms**

We agree with the AEMC that in the context of access reforms it is also important to consider the transmission use of services (TUOS) framework broadly, including consideration of potential improvements to inter-regional TUOS arrangements. However, we recommend that the holistic consideration of TUOS charging arrangements should take place in advance of a specific focus on inter-regional TUOS arrangements. To the extent that there is a basis for more fundamental changes, we expect this would shape the most effective reforms (if any) to improve inter-regional TUOS arrangements.

In particular, we support improving the cost reflectivity of pricing structures, which signal the costs of using the network (in the case of inter-regional TUOS, the transmission network in another region). Efficient use of the network, in turn, promotes more efficient investment in transmission networks. However, developing more cost reflective pricing structures must be balanced against the cost of transitioning to, and implementing, such structures.

Specifically on intra-regional charging arrangements, the consultation paper asks whether the non-locational components of the inter-regional investment be included in the inter-regional transmission charge. We note that in its first review of inter-regional pricing arrangements,<sup>7</sup> the AEMC arrived at the modified load export charge method, in which only the locational component of TUOS is recovered from the importing region. This was on the basis of shared concerns that the use of the non-locational component of TUOS provided no economic signalling function.<sup>8</sup> However, we agree that it is worth now revisiting this question. On the basis that the importing region (as the user) should pay for using an exporting region's network, the inter-regional charge should also include the non-locational component. The basis for incorporating the non-locational component should have regard to customer impact in the transition. This is a particularly important issue in a context of increasing interconnection between regions.

Following on from this, we agree that it is also worth revisiting the allocation of prescribed TUOS charges as 50 per cent locational and 50 per cent non-locational. We understand this

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<sup>7</sup> AEMC, *Rule determination: National Electricity Amendment (Inter-regional transmission charging) Rule 2013*, 28 February 2013.

<sup>8</sup> AEMC, *Rule determination: National Electricity Amendment (Inter-regional transmission charging) Rule 2013*, p. 5; AER, *Submission to AEMC: Inter-regional transmission charging discussion paper – ERC0106*, 20 September 2011.

default allocation was based on previous considerations that approximately half of transmission costs were directly associated with the end user and the other half reflected general system reliability.

We thank the AEMC for the opportunity to submit on this process and look forward to ongoing involvement in the CoGaTI charging and access reform work program. If you have any questions about our submission, please feel free to contact Kevin Fincham (07 3835 4677).

Yours sincerely,



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