



Elizabeth Bowron  
Project Leader  
Australian Energy Market Commission

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

29 March 2019

Dear Ms Bowron,

Aurizon Network Pty Ltd (**Aurizon**) welcomes the opportunity to make a submission in relation to the Australian Energy Market Commission's (**AEMC**) *Coordination of Generation and Transmission Investment (COGATI) Implementation – Access and Charging* consultation paper (**Consultation Paper**).

### **1. Background**

Aurizon has previously provided submissions in relation to the AEMC's review of coordination of generation and transmission investment. Aurizon owns and operates the regulated open-access Central Queensland Coal Network (**CQCN**). Approximately 2,000 kilometres of the CQCN is electrified allowing trains to use electricity or diesel fuel as their source of traction power. The electric traction network represents a significant proportion of Queensland's regional and total energy demand and provides a critical supply chain link for Queensland coal exports.

Transmission and wholesale electricity costs together with energy security and reliability are critical to the future competitiveness of electric traction. Our customers have a technically feasible and readily accessible alternative to electric trains in the form of diesel locomotives. If customers decided to substitute electric trains for diesel, this would result in a significant reduction in electricity demand in regional Queensland. The electric traction network is equivalent to approximately 500,000 electric vehicles on the road. If substitution occurred, then the benefits would be lost and require investment of ~\$3.4b to restore.<sup>1</sup> Aurizon is therefore particularly sensitive to the consequences of inefficient transmission and generation investment. Given the significance of these potential impacts for both energy and climate change policy, we recognise the importance of informing the AEMC and other policy and regulatory stakeholders how important electricity investment, reliability and cost issues are for Aurizon and its customers.

Aurizon considers that in implementing the broad scope of reforms contemplated as part of the COGATI review that the AEMC should ensure that it accounts for the potential costs and benefits to all market participants – including large customers. Similarly, the AEMC needs to be confident

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<sup>1</sup> Aurizon Holdings. Delivering for the long haul. 2017 Sustainability Report. P37  
<<https://www.aurizon.com.au/~media/aurizon/files/sustainability/sustainability%20reports/fy2017%20sustainability%20report.pdf>>

it has allocated the potential risks arising from such reforms to those who are best placed to manage them. Failing to appropriately account for the costs, benefits and risks of such a broad reform package may be to the detriment to the future competitiveness of energy intensive industries, like electric rail.

The Consultation Paper has sought engagement on a range of questions. This response does not address each question but instead focuses on those key elements Aurizon considers important to the AEMC's assessment as detailed below.

## 2. Threshold issues

The scope and function of the COGATI review has evolved since it commenced. It will likely result in substantial structural changes to the frameworks that underpin the existing electricity market, and the allocation of costs and benefits between stakeholders.

The National Electricity Market (**NEM**) and its supporting governance frameworks are in a state of unprecedented transformation. It is critical that this transformation occurs in a coordinated, holistic manner. Many of these reforms focus on discrete issues and are likely to result in discrete recommendations. There is a risk that different reform projects will fail to appropriately account for each other and their consequential impacts. For example, the recently announced Council of Australian Governments (**COAG**) mandate for the Energy Security Board (**ESB**) to develop a post 2025 market design for the NEM requires consideration of any required changes to be concluded by the end of 2020.<sup>2</sup> As the ESB highlight:

*“Consideration of the optimal future market design is a far-reaching process that interacts with all steps of the electricity supply chain, from fuel sources to end users. It is taking place in the context of a market and regulatory framework that is already evolving to address emerging challenges such as changes in the make-up of the generation stock, and at a time when energy ranks very high on the political agenda.”<sup>3</sup>*

The sheer scope for change including in relation to the ESB's review may undermine the cost benefit analysis relied upon to justify the proposed COGATI reforms as they reflect the situation as it is now, rather than the potential market framework that will exist post 2020.

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**Aurizon considers that reform to Australia's energy market on discrete issues must be considered as part of a coordinated and holistic program.**

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## 3. Complexity of the proposed changes

Aurizon understands that the rationale for reform reflects the AEMC's concern regarding generators access to the transmission network, the allocation of financial incentives to invest in network infrastructure and the distribution of costs between stakeholders.

However, Aurizon is concerned that the analysis appears to be founded on an assumption that only generators are exposed to localised network pricing risks as all other costs are postage stamped for end consumers. This view does not account for directly connected load customers like those in the rail and resource industry who are exposed to locational transmission pricing

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<sup>2</sup> COAG. Energy Security Board. Post 2025 Market Design for the National Electricity Market  
<<http://www.coagenergycouncil.gov.au/publications/post-2025-market-design-national-electricity-market-nem>>

<sup>3</sup> Ibid.

and changes to Marginal Loss Factors (**MLFs**). Aurizon considers that these customers bear both generation and transmission investment risk and any proposed reforms should account for the potential impacts to customers arising from these risks.

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**It is important to consider the impact of reform on all energy consumers, including large industrial consumers like Aurizon.**

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For example, the impact of dynamic regional pricing on consumers is unclear. The logic of dynamic pricing is implicitly attractive. However, as noted by the AEMC there is uncertainty about how dynamic pricing would interact with MLFs, if at all.<sup>4</sup> This uncertainty makes it inherently difficult for customers to understand what the potential impacts will be.

Further, Aurizon understands the free-rider problem associated with potential generation investment. However, because generators currently do not contribute to shared network upgrades, the costs of any investment to support consequential network constraints (e.g. investment recommended under the Integrated System Plan (**ISP**)) are borne by consumers. This creates a secondary free-rider problem which distorts incentives for generation investment, and potentially masks the true cost of energy borne by energy consumers. In addition, proposals to increase interconnectivity between NEM regions mean that consumers in more secure regions (e.g. Queensland) may support other regions. This could result in a positive cost benefit outcome at a system level but could also result in a distorted distribution of costs and benefits between jurisdictions.

The proposed COGATI review changes are complex. Aurizon urges the AEMC to conduct rigorous cost benefit analysis to assess the impacts on a system basis, accounting for distributive impacts between market participants and different types of consumers.

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**It is important that prior to implementation of any material change, a rigorous cost benefit analysis is undertaken ensuring it considers the distributive impacts across the market.**

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As the AEMC have noted *“the existing scale efficient network extension framework has been unused since it was established in 2013 due to generator commercial tensions and disparate generator project timing”*.<sup>5</sup> Aurizon does not consider it appropriate for consumers to bear the costs or risks of facilitating new generation investment, when the key barrier to that investment is a reluctance to cooperate.

As stated in our submission of 23 October 2018, the need for alternative investment models appears to be based on the AEMC’s acceptance that generators cannot collaborate to co-develop projects. This is surprising as the distribution of risks and costs between consumers and generators is not clear. There is limited explanation of the value captured in return for the risk transfer. Currently, load customers face the same challenges. Infrastructure upgrades required to facilitate a connection are borne by the connecting load notwithstanding that those upgrades may reduce the costs for future load (or generation) customers. Aurizon does not consider it appropriate that this commercial risk should be borne by consumers, but not generators.

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<sup>4</sup> AEMC. COGATI Implementation – Access and Charging. 1 March 2019 p.17

<sup>5</sup> Ibid. p11

Aurizon considers that facilitating new generation should only be an objective of the AEMC to the extent it is consistent with the NEO. The critical question should not be how to facilitate generation investment through increased certainty, but whether connecting particular generation projects is in *the long term interests of consumers of electricity with respect to: price, quality, safety and reliability and security of supply of electricity*. Any reform to access and pricing frameworks should be carefully considered with reference to that goal only.

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**Any changes should be prioritised by their consistency with the National Electricity Objective.**

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## 4. The broader TUOS framework

Any material change to the NEM should be accompanied by a holistic review of the existing TUOS framework. Major transmission investment has traditionally been driven by load, not generation. Recognising that generation is driving transmission investment represents a significant change to the underlying framework that has underpinned the development of the NEM. It is an important step that requires careful consideration of whether the existing regulatory and policy framework, and allocation of risk (and cost) remains fit for purpose.

The proposed changes to the market framework considered as part of the COGATI review represent a potential redistribution of risk and cost between electricity market stakeholders. Aurizon is not aware of a system wide, or jurisdictional cost benefit analysis that assesses the current state and compares it to the changes proposed by the AEMC. Therefore, it is difficult to understand the magnitude of the cost and benefits of the options proposed, particularly the benefits for consumers. It would be helpful if greater clarity regarding the distribution of costs and benefits could be provided including how the changes are consistent with the NEO.

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**Assessment of any changes to Australia's energy market requires careful consideration of whether the existing regulatory and policy framework, and allocation of risk (and cost) remains fit for purpose.**

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## Conclusion

Developing and adapting frameworks to address an evolving energy market is complex. Aurizon welcomes the opportunity to further engage on this issue and the AEMC's willingness to consult with stakeholders. Aurizon cautions that the scope and consequences of any reform should be carefully considered. There is a risk that outcomes of the proposed market reforms could materially impact the competitiveness of large energy users and erode a pathway to reliable, cheap electricity consistent with broader energy and climate objectives. Electricity supply has traditionally been a key competitive advantage for Australian businesses and it is Aurizon's desire for that competitive advantage to be maintained.

If you wish to discuss further, please do not hesitate to contact myself, or Liam Byrnes ([liam.byrnes@aurizon.com.au](mailto:liam.byrnes@aurizon.com.au) / 07 3019 1231).

Yours sincerely



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