



Dr Kerry Schott AO  
Chair  
Energy Security Board

Submitted by email to [info@esb.org.au](mailto:info@esb.org.au)

## Consultation Paper for the draft design of the National Energy Guarantee

13 July 2018

Dear Dr Schott,

Aurizon Network Pty Ltd (**Aurizon**) welcomes the opportunity to make a further submission in response to the Energy Security Board (**ESB**) Draft Detailed Design Consultation Paper (**Consultation Paper**) regarding the National Energy Guarantee (**NEG**) released on 25 June 2018.

### 1. Background

Aurizon is a major Queensland energy consumer that owns and operates the regulated open-access to the 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 load and provides a critical supply chain link for Queensland coal exports. As a large energy consumer and liability entity (as defined in the Consultation Paper), Aurizon will be directly impacted by the NEG.

While many energy consumers have limited options to switch fuel types in the short term, fuel switching remains a real risk for Aurizon's electric traction network. Customers of the rail network have the option of diesel or electric traction under the regulatory framework and exercise that option based on their view of the relative traction competitiveness. The NEG must deliver reliable and affordable electricity consistent with emissions objectives. If it fails to do so, there is real risk to the future of electric traction which depends on its ability to compete as part of the global supply chain and offer a cheap, reliable alternative to diesel locomotives.

The NEG should enable least cost investment that satisfies reliability and emissions requirements. The NEG will play an important role in increasing certainty by bringing the disparate elements of affordability, reliability and climate policy together. However, if the design is not right, there is a material risk to the future competitiveness of electric traction and other large energy users. Such an outcome would be inconsistent with the National Electricity Objective (**NEO**) and goals of the NEG itself.

This response is structured consistent with the energy trilemma of affordability, reliability and emissions that the NEG is intended to address. Aurizon supports the intention of the NEG and recognises the importance of a policy that integrates affordability, reliability and climate policy. However, Aurizon remains concerned about potential negative impacts on electricity intensive industries associated with affordability, reliability and emissions. Where concerns are raised they are intended to highlight areas for improvement in the policy design to improve the effectiveness of the NEG. The NEG represents a significant change to electricity market design, and is consequently a complex and politically sensitive undertaking. We welcome the commitment to consultation and look forward to further engagement with the ESB.

## 2. Energy affordability

The ESB has emphasised the role of the NEG in reducing prices stating:

*“Under this scheme, the wholesale price would be expected to be lower relative to today and lower compared to a certificate-based scheme. Since retailers will need to contract with new low emissions and dispatchable generators, the increased supply will place downward pressure on wholesale prices.”<sup>1</sup>*

Price modelling published by the ESB shows an expected decline in wholesale electricity prices. This modelling assumes that the NEG will increase certainty, thereby reducing risk premiums associated with new power stations and facilitate more trading. However, if greater stability does not occur, then wholesale price reductions are unlikely to materialise.

The NEG will directly expose large consumers to both emissions and reliability costs. If the reliability requirement is triggered, it could drive prices of qualifying contracts significantly higher during the relevant period. The ESB has attempted to limit large vertically integrated retailer market power through the introduction of the liquidity obligation. However, if the obligation is not enforced effectively, or does not provide the level of liquidity expected, there is a real risk to the underlying price of qualifying costs and consequently, the cost of the reliability requirement. The lack of detail regarding the liquidity obligation makes it difficult to assess whether it will address this risk.

Aurizon is also concerned that the emissions component could result in differences between retailers. Each retailer will examine the generation produced (or purchased). If they have not purchased sufficient emissions contracts to meet their obligation (which may vary between jurisdictions) they will procure the rest at spot. Consumers are unlikely to know how much electricity will be forward sold resulting in uncertain future emissions costs. Where customers have retail contracts that traverse the NEG implementation, unexpected additional costs (not considered at the time of contracting) could arise due to a retailer’s characteristics. Aurizon considers a transition period that protects existing customers could alleviate some of these concerns.

Securing affordable electricity is critical to the future of electricity intensive industries. Aurizon recognises that future costs are highly sensitive to a range of market factors. Appropriately designed, the NEG could provide a mechanism to incentivise efficient, least cost investment that is reliable and consistent with climate policy goals. Aurizon considers that in finalising the NEG the potential impacts on affordability should be a critical consideration in both the design of the NEG, and its interaction with other complementary policies and reforms. Aurizon cautions that the rapid timetable for implementation of the NEG may reduce alignment

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<sup>1</sup> Dr Kerry Schott AO, Chair, Energy Security Board <https://www.energy.gov.au/government-priorities/better-energy-future-australia>

between the NEG and other energy market reforms currently being contemplated resulting in a more complex, and less efficient regulatory framework.

If the NEG fails to deliver affordable electricity, it could undermine the future of electricity intensive industry in Australia. Affordability reflects the total cost of energy which includes network costs, environmental costs, reliability costs and the cost of generation. Given that the cost impact of these elements is uncertain, Aurizon remains concerned about future affordability.

### 3. Emissions requirement

The NEG provides a framework that caters for policy change. Aurizon reiterates its concern about the lack of consistent climate policy across election cycles and increasingly between jurisdictions and the impact this uncertainty has on private sector investment. The lack of policy certainty undermines private sector willingness to invest the significant capital required to sustain electricity intensive industries and underwrite the capital required to achieve climate goals. Aurizon reiterates its comments in response to the original submission that:

*“Care should be taken to ensure the NEG is technology neutral and does not support a certain class of investment or generator(s) at the expense of others. Such an outcome is distortive, will reduce innovation and result in higher costs.”*

Aurizon also remains concerned about the impact emissions adaptation costs could have on the electric traction network. The highly specialised nature of electric rail networks means that environmental costs can represent a significant proportion of electricity costs, although the potential contribution to outcomes can also be significant.

The risk of fuel switching associated with emissions obligations imposed on the electricity sector (and not other sectors) should be also be considered. Fuel switching is a real risk in the CQCN where Aurizon’s customers are motivated by international supply chain competitiveness, and diesel locomotives provide a feasible technical alternative to electric traction.

#### 3.1. Use of offsets

Aurizon has separately responded to the Commonwealth Government consultation paper and reiterates its support for the use of Australian Carbon Credit Units and international offsets to meet emissions obligations in the most efficient and cost-effective manner.

Aurizon cautions that the cost of meeting emissions obligations will depend on the cost of abatement. In finalising the NEG design, the ESB should consider the interaction between the potential for offsets and the design of the emissions framework including carry forward amounts.

### 4. Reliability requirement

Reliable and secure electricity supply is critical to the competitiveness of the CQCN. Reliability of supply reflects a range of different drivers including generator types, locations, existing generation fleet, network configuration, age of assets and demand.

In relation to the proposed reliability guarantee, a set of arrangements under which the reliability guarantee would only be triggered when absolutely necessary is supported. Consistent with the objectives of the NEG, the reliability guarantee arrangements should involve minimal cost for the large consumers subject to the guarantee. Aurizon reiterates that:

*“the reliability obligation should both respond to and prevent anticipated reliability issues. Consideration should be given to aligning the NEG with complementary policy measures including the Australian Energy Market Commission’s (AEMC’s) review of coordination of*

*generation and transmission investment. New investment should be least cost, and not responsive to inefficient investment (e.g. locating generators in regions that require significant consequential network reinforcement). The reliability obligation should align with other reforms and minimise the need for investment. Investment to support reliability should be a last resort otherwise costs associated with private investment decisions are shifted on to end consumers.”*

The ESB proposes to apply the requirement at a single site National Metering Identifier. For organisations with multiple sites that are within the threshold, this would result in an additional layer of regulatory and administrative burden. It may also require more complex retail agreements, or multiple agreements instead of a corporate portfolio. This approach is not consistent with the obligation imposed on retailers who can address the requirement at a portfolio level. The rationale for applying the obligation differently between retailers and large consumers is unclear. Aurizon considers that if the requirement is to be imposed on large energy consumers directly, then the requirement should be able to be satisfied at a portfolio level.

### **Reconciling the reliability requirement with the need for reliability**

The likelihood of the reliability requirement triggering is connected to the broader market, particularly transmission and distribution networks, and the coordination of network and generator investment. The current design does not directly reconcile the cause of reliability impacts (recently driven by changing generation mix and location of new generation) with who pays for the requirement. It links some elements of reliability and climate policy by focusing on the reliability impacts of generators (at a regional level), but it does not provide direct pricing signals for investment that is driving the reliability impacts. Instead, it requires energy consumers who have limited direct ability to influence investment that may trigger the requirement to pay.

The need for a reliability requirement results from a change in the generation mix and historical network investment. Imposing additional costs on large energy users, many of which operate in highly competitive markets risks a marked decline in business competitiveness. For Aurizon, electric traction requires energy to be available constantly for locomotives travelling across the network. Imposing the obligation on Aurizon would represent a risk transfer from generators, retailers and electricity network operators without any corresponding efficiency obligation on the rest of the supply chain. It would also require new (non-core) capabilities to be developed and the absorption of further administrative and regulatory compliance costs.

### **Placing reliability obligations on large energy consumers**

The Consultation Paper proposes that large energy consumers should be responsible for the reliability requirement on an “opt out” basis. Aurizon understands that the ESB considers that this will allow the reliability requirement to be managed at least cost<sup>2</sup> due to improved competition, and greater investment certainty for retailers to large consumers.

Aurizon considers that this obligation should not be imposed on large energy consumers on an “opt out” basis and instead on an “opt-in” basis. Aurizon notes that other large energy users and consumer organisations have also highlighted the potential negative impacts of imposing

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<sup>2</sup> Technical Working Paper – Liable Entities for the Reliability Requirement p. 5

the reliability requirement on an “opt out” basis<sup>3</sup>. Aurizon reiterates its comments in response to the Consultation Paper that:

*“Imposing additional costs on large energy users, many of which operate in highly competitive markets risks a marked decline in business competitiveness... Imposing the obligation on Aurizon would represent a risk transfer from generators, retailers and electricity network operators without any corresponding efficiency obligation on the rest of the supply chain. It would also require new (non-core) capabilities to be developed and the absorption of further administrative and regulatory compliance costs.”<sup>4</sup>*

While Aurizon understands the conceptual appeal of an opt-out reliability requirement, it is difficult to see how this approach will secure reliability at least cost. There will be significant variation in compliance costs for large consumers. Consumers with flexible loads may be less affected provided they can capture that flexibility through the proposed mechanism. However, activities like electric traction cannot easily vary load without undermining the business. The ESB recognises that retailers are *“likely to be able to more cost effectively manage the obligation”<sup>5</sup>* than larger customers, yet the proposed requirement requires large customers to bear this cost.

If Aurizon contracts out its requirement, long term supply contracts may be required to provide a retailer with *“sufficient visibility of the customer’s load and/or future demand potential”<sup>5</sup>*. Large customers would have to give up flexibility in their contracting approach to retailers. For some large customers (including Aurizon), there is a limited pool of retailers who have the scale and financial capacity to support the load meaning that flexibility is lost but the expected benefit from increased competition from smaller retailers would not be available.

If the mechanism was “opt-in”, then retailers would be obliged to manage reliability risks across their portfolio to more effectively price short term contracts. Retailers currently manage price volatility through vertical integration or financial instruments such as caps and hedges. Liquid contract markets could facilitate inter-retailer transfer to address the reliability requirement. This could increase liquidity and reduce and enable more retailers (and even large consumers) to participate. A liquid market of this type aligns with the liquidity obligation and would allow market participants to trade, increasing transparency and facilitating competition.

Aurizon recognises that large consumers may want to manage the reliability requirement internally and considers that an opt in process could facilitate this. Opt-in would likely facilitate least cost outcomes as large consumers will only opt-in in circumstances where they consider the reliability requirement can be satisfied more cost effectively than if contracted to a retailer.

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<sup>3</sup> *National energy Guarantee drafts shows big users could be forced to help keep nation’s lights on*, ABC news, 16 June 2018 <http://www.abc.net.au/news/2018-06-16/energy-guarantee-draft-puts-pressure-on-big-business-power-users/9876200>

*Corporates tell Coalition to back NEG*, The Australia, 25 June 2018

<sup>4</sup> The Chief Executive of the Energy Users Association has also stated in relation to large users’ responding the requirement that “their job is not to trade energy; if they are required to do that it will increase their costs”. *Corporates count the cost of energy reliability*, The Australian, 19 June 2018.

<sup>5</sup> Technical Working Paper – Liable Entities for the Reliability Requirement p. 5

## 5. Conclusion

Aurizon supports the goals of the NEG to develop a policy framework to reconcile affordability, reliability and climate policy and welcomes the ESB's willingness to consult with stakeholders. The NEG has the potential to provide an effective, holistic framework to secure affordable, reliable energy while achieving Australia's climate policy goals. However, Aurizon cautions that the scope and consequences of any reform should be carefully considered. There is a risk that the NEG could materially impact the competitiveness of large energy users and further erode a pathway to reliable, cheap electricity consistent with 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 restored.

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,

A handwritten signature in black ink, consisting of a stylized 'S' followed by a horizontal line that extends to the right.

Steve Straughan  
Head of Customers