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General Manager, Strategic Policy & Energy Systems Innovation
Australian Energy Regulator
GPO Box 3131
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Submitted by email: AERringfencing@aer.gov.au.

Dear Sir/Madam

AER Transmission Ring-fencing Issues Paper

Transgrid welcomes the opportunity to respond to the Australian Energy Regulator's (**AER**) Transmission Ring-fencing Guideline (**Guidelines**) Issues Paper.

In our role as the transmission planner and operator for NSW and the ACT for over 40 years, Transgrid has developed unique expertise and capability in managing one of the key parts of the Australian energy system. Our primary responsibility is to ensure the ongoing security and reliability of the system as it transitions to higher renewables penetration to support Australia's carbon target of 43% reduction by 2030 and net zero by 2050.

We appreciate that the AER's Issues Paper recognises the central role that Transmission Network Service Providers (**TNSPs**) play in the shift to net zero and that TNSPs need to be flexible in adapting to changes. Transgrid notes that changes are occurring more rapidly than market participants and market bodies could have predicted. Flexibility is more critical than ever to ensure stability and reliability in electricity supply during the transition.

As part of this review, Transgrid encourages the AER to develop a framework that provides the TNSPs with as much flexibility as possible so that they can adopt new technologies, products and services to successfully manage the rapid transition of the National Electricity Market (**NEM**) in the best overall interests of consumers.

Transgrid understands the AER's obligation under the National Electricity Rules (**NER**) to consider consistency between the Ring-fencing Guidelines that apply to TNSPs and those applying to Distribution Network Service Providers (**DNSPs**). Transgrid notes that in its November 2019 Discussion Paper (**2019 Discussion Paper**) on Transmission Ring-fencing, the AER recognised the differences between the transmission and distribution context. In particular, the potential harms that it is seeking to manage through ring-fencing, and the rules already in place to foster competition in transmission services. This is especially important, where activities are clearly defined as contestable, negotiated or must be provided by TNSPs. It is important, in our view that the AER seek to build Guidelines that take into account the NER, current regulatory practices and common law.

Best regulatory practice requires that any regulatory changes should be evidence based¹. Therefore, we encourage the AER to base any changes to the Guidelines on evidence and that this is relevant to TNSPs. Where no market harm has been identified, regulatory forbearance should be actively considered.

We encourage the AER to clearly demonstrate that the benefits of any additional regulatory barriers as a whole outweigh the associated costs and risks. This should be done in the context of the various obligations that already attach to TNSPs via the NER and more generally via competition law. If there are other sufficient means to protect the interests of consumers, we encourage the AER to rely on these rather than to develop new and ultimately duplicative frameworks within the Guidelines.

We are committed to protecting consumers, transparency and fairness. We have been actively working for some time to ensure that prescribed and contestable businesses are clearly separated and that our processes for this are transparent, clear and in line with relevant regulations and laws.

The AER's issues paper identified key ring-fencing issues which require further consideration as part of the review of the transmission ring-fencing arrangements. We have provided Transgrid's response for the questions asked by the AER in the template provided. Set out below are our responses on six of those issues:

1. Large scale batteries
2. Electricity generation and retail services
3. Non Prescribed services
4. Protections
5. Waivers
6. Compliance

Large scale batteries

The AER has expressed concern that the use of emerging assets that offer multiple services such as batteries and synchronous condensers increases the potential for cross-subsidisation and discrimination by TNSPs to favour an affiliated business. The AER questions whether TNSPs should be able to lease out spare capacity and if so, suggests a waiver mechanism.

The AER's proposal to limit the extent to which TNSPs are able to utilise batteries is harmful to consumers because:

- Prohibiting or restricting TNSPs' participation in what is relatively concentrated markets is likely to reduce competition for battery services leading to higher prices and likely a stifling of innovation.

¹ See: <https://obpr.pmc.gov.au/>

- To the extent that there are economies of scale or scope associated with TNSP's providing battery services the prohibition or restriction of TNSP's participation in these markets is likely to deny consumers access to these economies.
- The waiver proposal is likely to slow down project development and the attendant uncertainty of regulatory decision making will discourage TNSP's from developing capability that will lead to the issues identified in the above two points.
- It will slow down the energy transition

Storage technologies represent a critical network asset for the TNSP

Batteries are increasingly capable of being multi-functional, providing a mix of market and network services. As such, they are critical to support the transition of the power system to renewables through the provision of firming and system security services that support the delivery of affordable and reliable electricity to consumers. The increase of renewable energy generators on the network and withdrawal of synchronous generation creates a number of technical challenges at both ends of the network, including issues around the stability, volatility and complexity of the electricity system. Batteries provide the technical functionality required to solve many of these issues and may ultimately represent a critical network asset for the TNSP to fulfil its obligations under the National Electricity Objective (**NEO**). This is further outlined in Australian Energy Market Operator's (**AEMO**) 'white paper'² which identifies key areas of application for advanced inverters, including supporting system security and system restart. This further proves that batteries will be a crucial component in a TNSPs asset base to achieve a reliable, secure, low emissions, and cost-effective future electricity system³.

As previously mentioned, batteries can provide a wide array of services. These include energy arbitrage, frequency regulation, voltage support, black start, resource adequacy, transmission congestion relief and transmission deferrals. Batteries can also provide a cost-effective solution to both inertia and system strength shortfalls on the network in the future, especially given the new obligations on TNSPs to provide system strength services⁴. A number of the services available from batteries are either currently provided by TNSPs, or are services that would be considered to be increasingly important for TNSPs to safely and cost-effectively manage an ever more complex electricity network. The 2022 Integrated System Plan (**ISP**) published by AEMO highlights the importance and need for large amounts of energy storage in the NEM to maintain system stability as coal retires and renewables increase. Given this, TNSPs cannot simply wait or rely on the commercial sector to propose business solutions to meet system reliability and security needs.

In December 2021, the Wallgrove Tesla battery owned by Transgrid went live. The battery is a good example of how value stacking would benefit consumers by utilising the required portion of the battery for prescribed services and the rest outsourced to third parties. A small portion of the battery was funded by consumers through prescribed revenue reflecting the prescribed services of inertia and fast frequency response (this portion was allocated to Transgrid's regulated asset base, and is therefore funded consistent

² See <https://aemo.com.au/-/media/files/initiatives/engineering-framework/2021/application-of-advanced-grid-scale-inverters-in-the-nem.pdf>

³ AEMO's 2022 Integrated System Plan

⁴ AEMC Efficient management of system strength on the power system Final Rule See: <https://www.aemc.gov.au/rule-changes/efficient-management-system-strength-power-system>

with Transgrid's other regulated assets). The unregulated use of the battery was funded by Transgrid's security holders and grant funding from ARENA and the NSW Government. The rights to trade the battery in the NEM and provide unregulated services were sold to a third party, who is the registered participant of the battery. This model provided the best outcome to consumers. We expect to continue to see these types of models negotiated by TNSPs in order to allow consumers to fully realise the benefits of batteries as a solution to system stability and security at the least cost possible.

In Transgrid's view, batteries are simply a new type of critical network asset for the TNSP to meet the future challenges of managing the electricity network with a new generation mix. Therefore, the Guidelines would need to accommodate and allow for TNSPs to effectively and efficiently formulate emerging business models to ensure better value for consumers and meet the required system stability as outline in the 2022 ISP.

Given the role and benefits of batteries in the NEM, we strongly encourage the AER to provide TNSPs with the flexibility required for optimal 'value stacking' approaches. Procuring a battery for the sole purpose of providing network services would currently not be commercially viable for TNSPs. We believe the existence of the cost allocation methodology, shared asset guidelines, anti-competition laws, coupled with stricter compliance reporting is sufficient to provide consumers with assurance whilst allowing TNSPs to come up with the most economically viable model for consumers. This would be a better outcome for consumers rather than implementing restrictions on TNSPs from owning and operating batteries. The potential consequence of restricting TNSPs from owning batteries and/or adding additional investment risk through the use of waivers⁵, would potentially increase the cost to consumers as the network becomes more constrained and unable to deliver the growth of energy supply from large scale renewables.

Where the AER sees it necessary to restrict TNSPs from owning and operating batteries and/or restrict the ability for TNSPs to choose the appropriate business value stacking model, then it would be in the best interest of consumers for the AER to clearly illustrate and provide evidence why current safeguards⁶ are not working to mitigate the perceived risks the AER is trying to minimise or eliminate.

Electricity generation and retail services

TNSPs are currently permitted to undertake generation and retail activities under a 5% threshold or such services may only be provided in a separated legal entity. The AER questions whether the 5% allowed for TNSPs is still appropriate given network revenues are increasing in absolute terms.

Efficient solutions to managing the transmission network

As TNSPs increasingly utilise new technologies to meet their role and as new requirements are imposed on TNSPs, the number of network assets that also have generating capabilities is likely to also increase. In order for TNSPs to deliver on these evolving obligations at least cost to consumers, TNSPs need to have the flexibility to utilise the 5% threshold and pass the resultant benefits onto consumers through reduced network charges under the shared assets guidelines. These benefits would include the mechanism in

⁵ A waiver mechanism is a form of overregulation that increases burden on TNSPs and the regulators, create investment risk and uncertainty, leading to a detrimental effect on investment and thus consumer outcomes.

⁶ This includes the Cost Allocation Methodology, Shared Assets Guidelines, the NER and competition law.

which the consumer can be repaid under the shared asset guideline similar to revenue derived from real estate and telecommunication services.

Transgrid recently acquired two diesel-fired turbines at Broken Hill⁷. Broken Hill is currently supplied by a single 220 kV transmission line, 'Line X2', from Buronga which spans approximately 260 km. When Line X2 is out of service due to a planned or unplanned outage, electricity supply to Broken Hill is supported by these two diesel-fired turbines to avoid involuntary load shedding (these turbines each have a nameplate rating of 25 MW). Transgrid relies on these diesel-fired turbines to meet the NSW Electricity Transmission Reliability and Performance Standards 2017 set by the NSW Energy Minister and regulated by the NSW Independent Pricing and Regulatory Tribunal (**IPART**). These diesel-fired turbines allow Transgrid to operate its network so as not to expect more than 10 minutes of unserved energy per year at average demand.

Given the turbines have an aggregate nameplate rating of approximately 50MW, they are registered with AEMO as a market, non-scheduled generators. The primary purpose of the turbines is to provide network support to the town of Broken Hill. However, given they are registered as a generator, AEMO has requested the generators be available if they are needed for a market purpose and Transgrid will operate in accordance with directions from AEMO. Whenever the generators are running, revenue will be generated from the spot market. Whilst this type generation revenue would fall under the 5% threshold, it is primarily provided to meet a network need to keep the Broken Hill community energised.

As regional NSW grows and the capabilities of certain technologies expand, we envision that there will be more of these scenarios. In our view, the 5% threshold on generation revenue should be retained or increased in the Guidelines. If this threshold were removed, it would impose an artificial restriction on the activities of TNSPs to adopt new technologies or to provide system reliability solutions to communities. TNSPs need flexibility in using more efficient solutions to managing the transmission network. As such, we would encourage the AER to retain or increase the 5% threshold on generation services and suggest a reporting mechanism that is proportionate to the potential harms the AER is seeking to reduce to manage potential adverse consequences.

Non Prescribed services

We recognise the AER's commitment to protect consumer interests and ensure that competition is not negatively affected when TNSPs offer services other than prescribed transmission services. The AER suggest greater legal and functional separation of services that are not categorised as prescribed transmission services.

However we believe that TNSPs act in good faith, are already subject to the NER and competition law and can make a positive contribution to the Australian energy market (and consumers) through contestable services:

- Allowing transmission businesses to provide contestable and non-prescribed services can help to catalyse nascent industries by leveraging economies of scale and scope as well as by overcoming initial barriers of investment cost.

⁷ See Transgrid's RIT-T application - <https://www.transgrid.com.au/projects-innovation/broken-hill-supply>

- Allowing transmission businesses to continue to provide contestable and non-transmission services can also allow innovation in regulated transmission services and lead to lower costs to consumers overall.
- The Transmission Connections and Planning Arrangements (**TCAPA**) rules that applied from 1 July 2018 seek to limit the need for stricter ring fencing obligations given it explicitly outlines the role of TNSPs to build and own contestable Identified User Shared Assets (**IUSA**), Dedicated Connection Assets (**DCA**) and since the DCA rule change implemented in 2021, Designated Network Assets (**DNA**).
- Examples can be taken from other jurisdictions such as California⁸ and New York State⁹ where regulated network businesses are encouraged to increase the uptake of storage services, demand management and other emerging technologies.

Protections

We are subject to a number of regulatory and legal obligations and recognise the importance of competition in the electricity sector as a means to deliver the best outcomes for consumers. The AER's position in the Issues Paper has changed from that in the 2019 Discussion Paper. Specifically:

- Difference between distribution and transmission businesses - there are clear differences between transmission businesses and distribution businesses. These include that the parties competing with and contracting with TNSPs are generally large and experienced businesses with capability and capacity to protect themselves from potential harms. We are concerned the AER is departing from this agreed point from the 2019 Discussion Paper.
- Functional separation - the AER appears to be predisposed to applying functional separation obligations on TNSPs for contestable connection services in its Issues Paper. This is a material departure from the 2019 Discussion Paper where the AER identified that the Rules based contestability framework, and the protections within that framework, were sufficient to address any competition concerns for network connections.
- The use of waivers between distribution and transmission business. It appears the AER has taken a materially different approach to how they used waivers in distribution. In the context of the Distribution Ring-fencing Guidelines, waivers appear to have only been used by the AER to provide distributors with additional time to comply with arrangements, rather than to change the obligation itself (apart from batteries). However, in its Issues Paper, the AER appears to be contemplating the widespread use of waivers on an ongoing basis. We do not believe prohibiting various activities, with waivers applied at the discretion of the AER delivers the requisite flexibility transmission providers require in an evolving market.

Transgrid is concerned that the AER's position has shifted in the Issues paper from that in the 2019 Discussion Paper. We recognise the importance of not engaging in prohibited conduct under competition law and that reasonable protections need to be in place to protect consumers. However the perceived

⁸ See ISO approved 2021-2022 Transmission Plan - <http://www.caiso.com/InitiativeDocuments/ISOBoardApproved-2021-2022TransmissionPlan.pdf>

⁹ See <https://www.nypa.gov/about/vision2030>

harms of cross subsidy and discrimination that the AER outline in the Issues Paper have not been evidenced and/or made clear.

The AER has not demonstrated how a TNSP would use market power in a way that would damage competition to the detriment of consumers. Furthermore, competition protections are dealt with under section 46 of the Competition and Consumer Act (**CCA**)¹⁰ which was recently amended at the Australian Competition and Consumer Commission's (**ACCC**) request to make such prosecutions easier.

The market power of natural monopolies may be viewed differently – electricity networks are regulated, airports are not for example. The real issue is whether regulation is necessary to stop excessive pricing, rather than promote competition.

Australian competition law, unlike other jurisdictions, is based on the idea that in a small open economy, markets are likely to be relatively concentrated and that market power might be used. That said, market power may not be used in a way that damages competition which is of itself assumed to be damaging to consumers.

The AER's proposal seeks to regulate TNSPs where they operate in markets where they don't have a monopoly position. Yes, by virtue of their balance sheets and technical knowledge of the electricity system they may be seen to have an advantage but so does large renewable and battery technology companies. Indeed, at least as things currently stand, the presence of international firms in the battery market significantly constrains TNSPs' ability to exercise market power. There is no a priori reason why TNSPs should be prevented from actively participating in markets for battery services and to the extent that they do already, there is no evidence of harm.

Regulation should be evidence based, not based on a conceptual issue that may or may not arise in practice, especially if there are other protections already available.

In situations where the AER sees it necessary to impose additional restrictions on the grounds of restricting cross-subsidisation and protecting competition, we recommend the AER clearly define the harms it is seeking to mitigate, including market-based evidence, so as to prove that the additional compliance costs are justified. We also encourage the AER to consider the robust framework of safeguards and administrative tools currently in place to ensure these risks are minimised. Any changes should explain and provide evidence that the current safeguards are not working. These are outlined in the table below.

¹⁰ See: <https://www.legislation.gov.au/Details/C2017C00369>

Current Protection	Explanation
Cost Allocation Methodology	Cost allocation practices in accordance with the approved cost allocation methodology ¹¹ . We believe the AER approved methodology eliminates the risk of cross subsidisation as it captures the appropriate allocation of costs between prescribed, negotiated and other services.
Common Law	TNSP obligations under the Corporations Act and CCA ¹² regulated by the ACCC.
National Electricity Rules	<ul style="list-style-type: none"> <li data-bbox="570 611 1403 758">• TCAPA - connections framework clearly outlines TNSPs ability to own and build IUSA, DNA and DCAs. The access framework under the NER makes it very difficult for a TNSP to actually deny connection to a network. Any changes to this, would require a rule change. <li data-bbox="570 779 1403 863">• The provisions governing use of information¹³ provides necessary protections against missuses of information obtained by the primary TNSPs. <li data-bbox="570 884 1403 968">• The provisions governing use of information¹⁴ provides necessary protections against missuses of information obtained by the primary TNSPs.
Shared asset guidelines	Allows consumers to benefit from the other services electricity network businesses may provide using the assets consumers pay for ¹⁵ . This guideline clearly implies that TNSPs are encouraged to do business other than prescribed transmission services.

Transgrid already has rigorous processes and practices in place to protect against cross-subsidisation and discrimination in favour of affiliated entities. These include clear separation of prescribed and non-prescribed staff, contestable information is publically available in accordance with TCAPA rules, cost allocation methodologies and commercial arm's length agreements.

Waivers

The AER has proposed greater reliance on waivers as a regulatory tool. Proposed instances when a waiver would apply include:

- Trialling innovation
- Storage technologies
- Substitute for revenue cap and non-transmission services
- Grandfathering arrangements

¹¹ Part G of chapter 6A of the NER

¹² Particularly competition protections are dealt with under section 46 of the Competition and Consumer Act

¹³ Clause 5.3.8(a1) of the NER

¹⁴ Clause 5.3.8(a1) of the NER

¹⁵ See: <https://www.aer.gov.au/networks-pipelines/guidelines-schemes-models-reviews/shared-asset-guideline>

Waivers represent poor regulatory practice

In our view, relying on blanket prohibitions and waivers is a heavy handed approach to regulation, without any underlying evidence of consumer harm. The approach appears to focus on assisting third party competitors enter markets than seeking efficient outcomes for consumers. We do not agree with the AER's proposed reliance on waivers and encourage it to outline the harms that the waivers are designed to monitor and protect against. This is especially so given the numerous existing safe guards in place to restrict cross-subsidisation and discrimination.

We do not believe it would be appropriate to create additional regulatory processes that do not have clear benefits, whilst not supporting the ability of networks to maintain reliability and security. A waiver system creates investment uncertainty and inefficiencies in the market given businesses organise their operations based on the regulations that exist rather than the potential that a waiver may be provided. Therefore, we encourage the AER not to rely heavily on a waiver system given it will only add additional costs and uncertainty to already long and complex processes. Instead the necessary flexibility should be built into the terms of the Guidelines to enable the TNSPs without a formal waiver to engage in desirable activities such as trialling innovation etc.

Compliance

Transgrid supports the AER's need to be able to have reasonable oversight of compliance with the Guidelines when they are finalised.

We urge the AER to apply a risk-based regulatory model to its compliance requirements that seeks to focus obligations on TNSPs to areas of higher risk to ensure resources are efficiently directed whilst minimising excessive costs on regulated entities, which are ultimately borne by consumers. Such an approach will allow the AER to evaluate and evidence risks by considering the likelihood of harm occurring in the absence of regulatory controls and the potential consequence of that harm. Consideration also needs to be given in the compliance framework to the harm within the transmission context.

Transgrid looks forward to continuing to work with the AER to develop a workable, flexible and relevant Guidelines that is in the best interest of consumers.

If you or your staff require any further information or clarification on this submission, please contact myself or contact Zainab Dirani at zainab.dirani@transgrid.com.au.

Yours faithfully

A handwritten signature in blue ink, appearing to read "B. Redman", with a long, sweeping horizontal stroke extending to the right.

Brett Redman
Chief Executive Officer