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Dr Kerry Schott AO
Independent Chair
Energy Security Board

Lodged via email: info@esb.org.au

Dear Kerry

TransGrid response to the Post-2025 market design issues paper

TransGrid welcomes the opportunity to respond to the Energy Security Board's (**ESB**'s) post-2025 market design issues paper (the **Issues Paper**).

TransGrid is the operator and manager of the high voltage transmission network connecting electricity generators, distributors and major end users in New South Wales and the Australian Capital Territory. TransGrid's network is also interconnected to Queensland and Victoria, and is instrumental to an electricity system that allows for interstate energy trading.

Australia is in the midst of an energy transition. This is primarily driven by changing community expectations and choices, advances in renewable energy and storage technologies, retirement of existing generation, and the adjustments required in Australia's economy to meet our international climate change commitments.

In this context we support the ESB's development of advice to the Coalition of Australian Governments Energy Council on a long-term, fit-for-purpose market framework to support reliability of power supply. It is also important to concurrently consider market and regulatory frameworks for security of power supply.

Assessment approach

TransGrid supports the proposed assessment approach outlined in the Issues Paper. It is appropriate to undertake a robust scenario driven analysis to test whether the current and alternative market designs are resilient and flexible to accommodate likely and other potential future scenarios. The scenarios developed for the 2019-2020 Integrated System Plan (**ISP**) provide an appropriate range of alternative future outcomes to achieve the right balance in this assessment.

Additional sensitivities should also be taken into account to ensure the market frameworks considered are robust to certain outlier situations. These should include the retirement of traditional synchronous generation before the end of technical life and the operation of the power system with no traditional synchronous generation for shorter durations (for example during a day, week or year) as the proportion of new generation sources increases.

The principles for evaluating market designs proposed by the ESB appear to be broadly appropriate. When assessing current and alternative market frameworks some trade-offs between principles will inevitably occur. Separate from an in-depth consideration of these trade-offs, the ESB should also consider the overarching question of whether each alternative framework will deliver the timely and efficient investment across the electricity supply chain required to facilitate a smooth transformation of the sector.

Given the scope and scale of this project it is important that all stakeholders have sufficient time to engage thoroughly and express their views. A transparent and methodical approach is also critical to provide market actors with the confidence to invest where it is needed in the short and medium-term, while the longer term market frameworks are under consideration and development.

Reliability of power supply

TransGrid agrees there are significant issues to be explored regarding the ongoing reliability of electricity supply. A particular focus of the ESB is whether the current electricity market frameworks are appropriate to efficiently deliver reliable electricity supply as traditional synchronous generation exits and is replaced by new generation sources. Priority should be given to ensuring that market frameworks send efficient investment signals for the entry of new generation (and exit of incumbent generation) even in the face of a shift toward generation sources with only nominal short run costs.

Equal attention however should be given to the planning, investment and regulatory frameworks to support timely and efficient transmission investment so that new generation sources are able to connect at the lowest overall cost for consumers. Timely investment in new transmission will help facilitate the transformation of the electricity sector while balancing the competing needs of ensuring a secure and reliable power supply, keeping costs down for consumers and reducing emissions. Specifically, transmission investment enables competition to provide electricity to load centres, reducing wholesale prices. These benefits accrue to all electricity consumers.

TransGrid recognises and supports the ESB's work towards actioning and embedding the ISP into the regulatory framework as immediate priorities. Working expeditiously to deliver the current ISP projects is an effective approach to address many of the congestion and other barriers to new and lower cost electricity reaching consumers. However, challenges still arise in opening up new areas that are rich in renewable energy resources (known as renewable energy zones, or **REZ**s) for the scale-efficient connection of new generation. The concept of REZs has been widely supported by Governments, regulatory bodies and industry participants but the mechanisms to identify, prioritise and fund REZs are yet to be determined. Solving this should be a priority for the energy transition now and in a post-2025 market.

The most efficient outcomes for delivery of low cost reliable electricity to consumers will be supported by transmission interconnection and REZs being delivered in advance of generation investments. Generation projects typically have shorter timeframes for planning and development, with investors following (rather than leading) transmission investment. This efficient transmission investment will be best supported by planning and investment frameworks that recognise this, as well as cost recovery frameworks that provide investors with confidence in transmission projects over the longer term.

Security of power supply

Security of power supply is a critical issue as traditional synchronous generation retires over time and the technical services they provide to the power system are lost. The ESB has appropriately acknowledged that the relevant task is to identify these services and to determine the most efficient mechanism for their provision to the power system (including incentives to minimise overall and long-term costs).

The task of determining the most efficient methods of procurement is important. Power system engineering expertise is critical to identifying the specific needs, characteristics and objectives for each discreet power system service. This process should occur before considering the most efficient provision of those services. Important factors to consider once the range of different services have been identified include:

- how much of the service is efficient to be provided to the power system, noting that different services will have different risks and costs involved in their being unexpectedly withdrawn from the power system
- whether the service is global in nature (in which case market based procurement may be appropriate) or whether the service is more localised (in which case market based procurement may suffer from the exertion of market power)
- who can currently provide the service and who are the alternative providers, noting that different approaches could result in a range of perverse outcomes, such as windfall gains to incumbents or inefficient barriers to entry of new providers, and
- what interactions there are between the services and their provision, as the most efficient overall solutions to the provision of a service may be influenced by commonalities in the parties and technical solutions across a range of services.

A separate and important consideration should be given to whether or not there are efficiencies to be gained by planning for scale efficient solutions to address specific system service needs. In this assessment some value should be placed on the need for certainty and predictability in addressing these issues in advance. Indeed, some market based approaches may come with the risk that the services may not be delivered when and where they are needed. This risk is particularly acute with newly created markets operating while the power system undergoes an unprecedented transformation. Regulatory approaches have traditionally been taken to address system security issues due to the need for certainty of delivery, which is critical and relevant now more than ever.

TransGrid appreciates the opportunity to comment on this Issues Paper. If you would like to discuss this submission, please contact Dominic Adams, Regulatory Reform Manager, on 02 9284 3377.

Yours faithfully

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