

30 March 2023

Marie Jordan  
Executive General Manager, Network  
Transgrid

Submitted via email: [regulatory.consultation@transgrid.com.au](mailto:regulatory.consultation@transgrid.com.au)

Dear Ms Jordan,

**Meeting system strength requirements in NSW – Regulatory Investment Test for Transmission (RIT-T) Project Specification Consultation Report (PSCR)**

Origin Energy Limited (Origin) welcomes the opportunity to provide feedback on Transgrid's PSCR for meeting system strength requirements in NSW. We seek more information on how the costs of non-network solutions will be treated compared to network options; how inter-regional assets will be assessed; and how the broader ongoing work program on system services will affect this RIT-T. We also suggest Transgrid should re-assess all credible options when it prepares the draft report to ensure the optimal mix of solutions reflects the latest inputs, assumptions and scenarios.

**Treatment of costs for non-network solutions**

As a rule, the treatment of operational costs such as energy consumption should be the same regardless of whether the asset is network- or generator-owned to ensure solutions are fairly assessed in the RIT-T. However, it is not clear that this will be the case. For example:

- We understand if a synchronous condenser is owned and operated by a network business (like the identified credible network options in this RIT-T), then energy consumption costs incurred through the process of providing system strength are treated as transmission losses.
- This means that network businesses do not incur any costs for energy consumption. However, it is not clear that this would also be the case for synchronous condensers owned and operated by non-network businesses such as a generator.

Furthermore, while this RIT-T is focused on the planning/procurement horizon, how system strength contracts will be enabled and how proponents will be rewarded in an operational timeframe have a bearing on investment decisions. Until the Operational Security Mechanism (OSM) is in place, uncertainty around operational costs will remain and it is not clear how the PADR will treat enablement costs or manage this uncertainty.

The lack of clarity around operational costs extends to the different ways in which a system strength solution can be provided by generators. It is unclear, at this stage, how generators would be compensated for system strength operationally through a Transgrid contract, and how energy consumed through the process of providing system strength would be treated for the following:

- In-merit generators – a coal plant, for example, that is in merit and providing system strength as a by-product of energy.
- Out-of-merit generators – a peaking gas plant, for example, that is out of merit but is enabled for system strength only.
- Synchronous condenser owned by a generator – enabled for system strength and providing no other service.

Origin seeks clarity on how operational costs (such as energy consumption costs) for non-network options will be treated, particularly in comparison with network solutions. The Project Assessment Draft Report (PADR) should set out how these costs are being treated in the RIT-T for each distinct network and non-network solution, to ensure the assessment process is clear and transparent.

#### **Treatment of inter-regional assets**

We seek information on how Transgrid will treat inter-regional non-network solutions as part of this RIT-T. Given that all system strength service providers are required to meet efficient levels in their respective regions, it is likely that interstate assets may in the future be required to meet fault levels in other regions of the NEM. It is unclear if the RIT-T will make assumptions as to inter-regional asset availability or on the likelihood of future contracts with other transmission businesses.

#### **Treatment of other system security services**

We broadly support capturing the value of projects that can provide a broad range of system security benefits. However, it is not clear how projects that can contribute to system strength and other services such as inertia will be assessed against those that can only provide system strength. The PADR should clarify this aspect of the RIT-T.

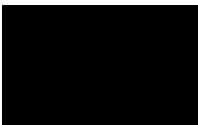
Given the ongoing work program on system services (e.g., the potential introduction of an inertia market), the PADR should also set out how Transgrid has treated projects that offer services that could be procured in a distinct market in the future.

#### **Assessment approach and options to address the identified need**

We broadly support using the latest available set of inputs, assumptions and scenarios when preparing the PADR. In doing so, Transgrid should re-assess all credible network options (i.e., the already identified synchronous condensers) in addition to non-network solutions so that the suite of options being assessed in the RIT-T reflects the latest available information. This would ensure that the optimal mix of solutions appropriately captures any changes in inputs, assumptions and scenarios that have occurred between the consultation and draft report of the RIT-T.

Should you have any questions or wish to discuss this submission further, please contact me at [REDACTED] or on [REDACTED]

Yours sincerely,



Sarah-Jane Derby  
Energy Regulation Manager