AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

Level 19
20 Bond Street
Sydney NSW 2000

T 02 9239 9199
F 02 9233 1965
E info@aemo.com.au

15 September 2025

Mr. Jason Krstanoski
Acting Executive General Manager of Network
Transgrid
180 Thomas Street
Sydney NSW 2000
By Email: Jason.Krstanoski@transgrid.com.au

Dear Mr. Krstanoski

Update support for Transgrid's proposed investment to upgrade operational technology and tools for use in its control room and corporate offices.

Australian Energy Market Operator (AEMO) supports Transgrid's proposal to upgrade its operational technologies and tools, which identifies a program of initiatives and investments to upgrade operational technology and tools for use in its control room and corporate offices.

Specifically, we support Option 2 (Proactive Capability) articulated in the Project Assessment Draft Report (PADR), as it aligns broadly with the EPRI Evolving Transgrid's Operational Technology Capability (ETOTC) Report recommended technology capability uplift to Level 2 to meet the Step Change scenario.

The necessity for this upgrade is driven by many factors which feed into the energy transition – the connection of renewables and storage, the retirement of coal plants, the evolving nature of electricity demand, the integration of smart devices, etc. AEMO acknowledges this has continued at pace since 2024, and to continue progressing through upcoming energy transition challenges, new operational technology and tools are required by Transgrid, that are new, different and in addition to current tool capability.

They include:

- Data management and network modelling systems.
- EMS/ SCADA system enhancement.
- Outage management systems and switching management.
- Operational forecasts and look-ahead contingency assessments.
- Smart transmission device management.
- Fault level and system parameter monitoring.
- Alarm management visualization and situation awareness enhancement.
- Training technologies, operational documentation management systems and operational planning.

The operational technology and tools proposed above are consistent with the experience of system and network operators globally, which are undergoing similar shifts and are making equivalent investments in the architecture, data and tools required to operate, plan and manage the system of the future.

The EPRI ETOTC report offered 3 recommendations for technology solution initiatives, with Option 2 (Proactive Capability) achieving desired outcomes. Option 1 (Basic Capability Uplift) will be too limited in scope and has built in constraints which will not go far enough in mitigating potential reliability risks given current growth patterns. Option 3 was ruled out after a market analysis, due to inherent uncertainty in needs.

Option 2 (Proactive capability) addresses the technology and the monitoring decision making and controllability capability uplift required and is consistent with AEMO's and other interconnected TNSP's and DNSP's functional obligations to manage the transmission network.

Transgrid's proposal also aligns with AEMO's own Operations Technology Program Roadmap and Engineering Roadmap. These identify the engineering challenges that emerge from the transition to a renewable energy system, and the uplift in operations capabilities that AEMO needs to enable this transformative change while maintaining electricity system reliability, security, and resilience.

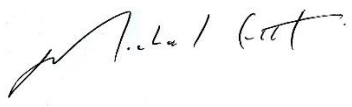
Importantly, there are interdependencies between the roles of AEMO and Network Service Providers (NSPs) and systems and capabilities must effectively interface, support and complement each other. Investments by AEMO alone will not be sufficient; a capability uplift will also be needed by NSPs for system security to be maintained across the National Electricity Market (NEM). These investments are urgently needed to manage the security of the power system and to complement investments AEMO is making under its own Operations Technology Roadmap and associated program.

AEMO and Transgrid have validated the technology roadmap alignment required to realize the benefits. Each have engaged collaboratively to date to define emerging power system needs, and the future operational technology and tools required to address them. We look forward to continuing to work together to refine and implement solutions to maintain a reliable and secure power system, in the best interests of consumers.

We acknowledge this correspondence will be made public with Transgrid's PACR and submitted with the Contingent Project Application to the AER.

If you would like to discuss this matter further, please do not hesitate to contact me at Michael.Gatt@aemo.com.au.

Yours sincerely,



Michael Gatt

Chief Operations Officer