

15 October 2024

Ms Marie Jordon  
Executive General Manager of Network  
Transgrid  
180 Thomas Street  
Sydney NSW 2000  
By Email: [REDACTED]

Dear Ms Jordan

**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 technology 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. Enhancements are urgently required to securely operate, plan and, manage the NSW/ ACT power system during a period of unprecedented change and rapidly increasing system complexity. The need for this upgrade is driven by many factors which feed into the energy transition – the connection of renewables and storage, the retirement of coal plant, the evolving nature of electricity demand, the integration of smart devices, etc. To progress through upcoming energy transition challenges, new operational technology and tools are required by Transgrid – they 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.
- Real-time asset health monitoring system.
- Operational forecasts and look-ahead contingency assessments.
- Smart transmission device management.
- Fault level and system parameter monitoring.
- Alarm management visualisation 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.

Transgrid's proposal is fully aligned with AEMO's own Operations Technology 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 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.

If you would like to discuss this matter further, please do not hesitate to contact me at

[REDACTED]

Yours sincerely,

[REDACTED]

Michael Gatt

**Chief Operations Officer**