

Submission: Draft 2026 Integrated System Plan (ISP)

To: ISP Consultation Team, Australian Energy Market Operator (AEMO)

From: Kurt Huang, Founder, AITERAQ Advisory Pty Ltd

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Subject: Strategic Feedback on Load Forecasting Gaps and Infrastructure Scalability Risks

1. Introduction & Standing

AITERAQ Advisory provides high-level strategic consultancy within the Australian and APAC renewable energy sectors. As Founder, I bring over 20 years of technical and commercial experience across the energy value chain, specifically in Battery Energy Storage Systems (BESS), solar, and offshore/floating wind development.

This submission is driven by a commitment to ensuring the National Electricity Market (NEM) remains technically robust and commercially viable during this period of accelerated transition.

2. The "AI-Driven" Load Forecasting Gap

AITERAQ identifies a significant risk in the current ISP scenarios regarding the forecasting of utility-scale load from Data Centres (DCs).

- **The Velocity of Demand:** Driven by the global acceleration of AI infrastructure, data centre development cycles (approx. 24–36 months) are significantly faster than the transmission projects required to serve them.
- **Recommendation:** AEMO should incorporate a high-sensitivity scenario for hyper-scale digital loads. Failing to account for this 24/7 firm load growth risks localized grid shortages, increased price volatility, and potential delays in the broader industrial electrification.

3. Critical Alert: The 4,000km Transmission Reduction

We view the proposed reduction of approximately 4,000km in planned transmission infrastructure as a **major warning sign** for the industry.

- **Grid Resilience:** A "leaner" grid reduces the NEM's ability to share

geographical diversity and manage extreme weather events.

- **Investor Confidence:** This reduction sends a cautious signal to capital markets. Without the "arteries" of a robust transmission network, Renewable Energy Zones (REZs) risk becoming stranded assets due to permanent congestion or curtailment, directly undermining the 2030 and 2050 targets.

4. Strategic Role of Offshore Wind & BESS

To bridge the gap between shrinking infrastructure and soaring digital demand, AITERAQ advocates for:

- **Offshore Wind Maturity:** Recognizing Offshore Wind as a vital, high-capacity factor resource located close to major coastal load centres. Its role in replacing retiring thermal generation is non-negotiable for system security.
- **BESS as Primary Infrastructure:** BESS should be prioritized as critical infrastructure to firm the constant, 24/7 energy profiles required by modern data infrastructure. The ISP should reflect a more aggressive deployment schedule for long-duration energy storage.

5. Conclusion

AITERAQ Advisory urges AEMO to reconsider the scale of transmission investment. A proactive, rather than reactive, approach to grid expansion is essential to maintain Australia's competitive advantage. A leaner grid risks becoming a fragile grid that cannot support the digital economy.

Sincerely,

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