7th August 2025

# Subject: Submission in Response to the Draft Determination on the Efficient Provision of Inertia

Reactive Technologies welcomes the opportunity to respond to the AEMC's draft determination on the Efficient Provision of Inertia. We commend the Commission's recognition of the importance of real-time inertia measurement and its role in supporting future reform readiness. As a global leader in grid stability technologies, we are committed to supporting the continued maturation of inertia measurement capabilities and their integration into market frameworks.

We support the Commission's decision to focus on strengthening existing frameworks and progressing technical enablers. We agree that real-time inertia measurement is a critical capability to support any future market-based procurement of inertia. As we have seen in other markets, we would recommend the immediate deployment of the measurement capability to maximise the data set and subsequent understanding of the changing nature of inertia in the power system.

Reactive Technologies is actively working with system operators globally to deploy real-time inertia measurement systems. Our technology is proven, scalable, and already delivering value in markets such as the UK and Taiwan. We welcome the Commission's proposal to monitor system conditions through the Reliability Panel and suggest that clear criteria be developed to determine when inertia measurement is considered sufficiently mature for use within an inertia market.

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In collaboration with AEMO and supported by ARENA, Reactive Technologies successfully delivered the System Inertia Measurement Demonstration Project, independently evaluated by the University of Melbourne. The findings, published in the Technical Knowledge Sharing Report (August 2024), confirmed that:

- Reactive's GridMetrix® technology accurately measured full system inertia across the NEM on a continuous, on-demand basis.

- Measured inertia values were on average 38% higher than AEMO's theoretical estimates, revealing significant hidden demand-side inertia.

- The University of Melbourne quantified material economic benefits, including projected annual savings of $26–$87 million by 2037 and deferred infrastructure investments of up to $145 million.

Reactive Technologies' inertia measurement system is in use by National Grid ESO (UK), where it supports the development of an inertia market as part of the UK's Net Zero Market Reform. The collaboration is publicly referenced in ESO's Innovation Annual Summary, and the data is used to inform operational decisions and market design.

In Taiwan, Reactive Technologies is working with Taipower on a five-year real-time inertia measurement project. This initiative includes deployment across ten locations and integration with energy storage systems. It was publicly presented at the 18th UK-Taiwan Renewable Energy Conference in September 2023.

We support the Commission's approach to maintain flexibility and build readiness for future reform. Reactive Technologies is ready to work with AEMC, AEMO, and other stakeholders to deliver an accurate inertia measurement system for the NEM and to help define the criteria for its integration into market mechanisms.

We appreciate the opportunity to contribute to this important initiative and look forward to supporting its successful implementation.

Yours sincerely,

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Reactive Technologies Pty Ltd

## References:


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2. National Grid ESO, Innovation Annual Summary 2021/22. Available at: https://reports.nationalgrideso.com/innovationannualsummary/

3. Taiwan Power Company, News Release: "Taiwan–UK Cross-Border Power Collaboration: Taipower Implements Real-time Inertia Measurement System," September 2023. Available at: https://www.taipower.com.tw/2764/2804/2805/40048