Thursday, 30 January 2025

Reliability Panel
c/- Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Issued via email only

RE: REL0091 Review of System Restart Standard Issues Paper Submission

EXECUTIVE SUMMARY

Tomago Aluminium Company (TAC) welcomes the opportunity to provide a submission to the Reliability Panel on the Issues Paper for the Review of the System Restart Standard dated 12 December 2024.

TAC is one of Australia's leading strategic assets, that has been recognised for support in the Federal Government's Future Made in Australia (FMIA) program. TAC contributes $2.2B annually to the economy, provides 37% of Australia's primary aluminium production capacity and employs over 1,000 people directly, with an estimated ratio of 5:1 indirect jobs for every direct job. As the largest electricity user in NSW, TAC plays a critical role within the NEM through the provision of various services, including under-frequency load shedding, FCAS and RERT.

TAC has provided more than 9% of the operational demand in the NEM (and >30% of operational demand in NSW) during periods of high solar production. Our operations have the capability to voluntarily shut down production during times when AEMO forecasts lack of reserve conditions that may otherwise result in widespread load shedding across the state. We contribute sizeable economic value and employment and directly assist in stabilising the electricity market and helping to avoid electricity blackouts.

TAC has identified that the existing regulatory framework does not currently provide viable system restart plans to ensure that power is restored within a critical timeframe to avoid total business loss of our operations due to potline freeze. TAC is identified as a sensitive load in the NEM and has been independently acknowledged as a significant economic risk and liability to the Australian economy should it be impacted by a prolonged power outage. We estimate that the economic value of a "default" blackout in NSW is significantly higher than $2.63B that was estimated by the AEMC in the Economic Assessment of System Restart Ancillary Services in 2016.

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(Agents for the participants in the Tomago Aluminium Project, an unincorporated joint venture of Alcan Primary Metal Australia Pty Limited, Gove Aluminium Finance Limited, Cathjoh Holdings Pty Limited, Hydro Aluminium Australia Pty Limited)

The system restart standard must ensure that restart plans are practical and can restore power to our sensitive load within the critical timeframe and with a high degree of probability to avoid total business loss. Changes to the regulatory framework to address this gap would not only avoid catastrophic disaster for our business but could also provide a wider NEM benefit through leveraging TAC's significant load to coordinate bringing NSW generators back online as quickly as possible following a system black event.

TAC can play a vital role in securing the system restart efforts in Northern NSW by mitigating risks associated with uncontrolled solar generation and damaged transmission infrastructure caused by bushfires or other natural disasters. We are seeking that these considerations be incorporated into the Reliability Panel's work to assess fit-for-purpose pathways that should be reflected in future system restart ancillary service procurement.

TAC is concerned that stakeholders within the system restart regulatory framework have been unsuccessful in addressing long-standing, well-known deficiencies that present an economic risk to the Australian economy. The following points detail this concern:

- Participation in system restart sessions with AEMO in November 2023 confirmed the business is exposed to total potline loss due to delayed power restoration following a system black.
- Throughout 2024, TAC continued to raise this issue with AEMO, TransGrid and the AEMC.
- We are disappointed that no action, beyond a cursory investigation has been taken to mitigate the identified risk, despite stakeholders agreeing that the concern is valid.
- Further investigation has revealed that the risk has been known for over 20 years by past and present stakeholders responsible for system restart. In the last decade, public submissions have been made to the Reliability Panel from the Electricity Networks Association (ENA), ERM Power, Russ Skelton & Associates, Snowy Hydro, TransGrid and others supporting this concern, yet no action has been taken.
- It is possible that the risk can be mitigated with procedural changes during the initial stages of system restart, however there is currently no regulatory framework that incentivises relevant stakeholders to prioritise, resource or action the development of this indicating a failure of the regulatory framework to meet the National Electricity Objective (NEO) and to ensure that sensitive loads are restored within their critical timeframes.
- TAC has not been adequately consulted in the formulation of restart plans, of which the business could play an enhanced role.

To address these concerns, TAC proposes the following points be considered in the Reliability Panel's scope of work:

- Generator restoration characteristics should be based on actual plant performance corresponding to a black start situation to represent the real-world response.

- System restart plans should account for actual critical timeframes needed to restore each unique sensitive load to avoid catastrophic business loss.
- Sensitive loads are appropriately consulted to improve restart modelling, including:
    - technical suggestions for restoring sensitive loads within critical timeframes during system black events, and
    - determining the economic benefit to the NEM from leveraging sensitive loads to help bring nearby generators back into operation following a system black event.
- Integration of TAC at the beginning of system restart in system restart plans could save our operation and may also provide significant advantages to help expedite and secure the system restart effort and should be reflected in System Restart Standard to be a requirement of future system restart ancillary service.
- The Reliability Panel should also assess whether additional regulatory frameworks may need to be reviewed to provide for the development of technical solutions that are necessary to restore sensitive loads within their critical timeframes. For example, this may include the need for additional resourcing and funding for TransGrid to upgrade infrastructure that serve sensitive loads.
- Techno-economic modelling and scenario analysis should explicitly consider the costs and implications to the broader Australian economy for not successfully restoring sensitive loads.

The System Restart Standard should ensure any System Restart Plans deliver a practical, viable strategy to save sensitive loads such as aluminium smelters, given the resultant impact on the Australian economy.

We welcome further opportunity to work with the AEMC and other stakeholders to develop practical resolutions to the identified issues and quantify the economic value that our operation provides to the NEM and broader Australian economy during a system restart scenario. We would also welcome the opportunity to present to the Reliability Panel on the matters raised in this submission.

Yours sincerely,

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CFO & COMPANY SECRETARY

RICHARD STUART
PRINCIPAL ELECTRICAL ENGINEER

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