
To: Australian Energy Regulator (AER)

Subject: Submission on ElectraNet Northern Transmission Project (NTx) Stage 1b – Early Works Contingent Project Application (CPA 1b)

1. Executive Summary

This submission is made on behalf of stakeholders in the Mid North region regarding ElectraNet's \$29.5 million (net) funding request for Stage 1b "Early Works." While we acknowledge and welcome ElectraNet's recent openness to investigating a 5th (Eastern) Corridor option, we urge the AER to condition the approval of this funding. This is to ensure that the \$22.2 million allocated for engineering and contractor involvement is used to provide a legally robust, like-for-like comparison in the June 2026 PADR, with technical substance.

2. Acknowledging Positive Engagement & The "5th Corridor"

We note that ElectraNet's recent engagement has improved, specifically their commitment to investigating an alternative corridor east of Goyder's Line.

- **The Opportunity:** This 5th corridor aligns with the consensus feedback in ElectraNet's "What We Heard" Report, which calls for routing that avoids high-value agricultural land.
- **The Risk:** Because "nothing is set in stone" until the PADR, there is a risk that this investigation remains a desktop study. We request that the AER ensures the \$7.2 million Early Contractor Involvement (ECI) funding specifically includes the 5th route in its preliminary designs to ensure it is a "credible option" under the RIT-T.

3. Regulatory Risk: AEMO's "Actionability" Concerns

ElectraNet's application admits that AEMO has "raised questions over the future actionability of NTx" in the Draft 2026 ISP.

- **Prudency Requirement:** It is neither prudent nor efficient for consumers to fund \$10.9 million for land acquisition and \$7.2 million for ECI if the project may be removed from the "Optimal Development Path" by mid-2026.
- **Condition of Approval:** We recommend the AER stagger the release of funds, ensuring that major capital for land and contractors is only released once AEMO confirms the project remains "actionable" in the Final 2026 ISP.

4. Technical Parity & Alternative Solutions (Undergrounding)

ElectraNet's current cost estimates dismiss undergrounding as too expensive, yet recent industry precedents suggest otherwise:

- **The Marinus Link Precedent:** The Marinus Link project (90km underground DC cable) demonstrates that undergrounding is a viable, federally approved tool for traversing high-value land where social licence is otherwise unobtainable.
- **Technical Gap:** We request that the AER mandate a High Voltage Direct Current (HVDC) undergrounding feasibility study as part of the Stage 1b "Engineering Assessment"

5. Shift in Economic "Need" (Whyalla & Energy Connect)

The "Identified Need" for the southern section of NTx is predicated on industrial green growth.

- Gas vs. Hydrogen: The recent announcement that the Whyalla steelworks will be powered by gas changes the immediate load profile for the region.
- Economic Scrutiny: Given the "reasonably thin" economic case recently reported for Project Energy Connect in NSW, the AER must scrutinize if the NTx is truly the "lowest cost" solution for consumers based on a decade of declining trend of overall consumption and highest renewable (household solar and battery) across the state.

Conclusion

We support the project's goal of strengthening the SA grid, but we believe the current \$29.5 million request lacks the specific technical commitments needed to justify its "efficiency."

We ask the AER to condition Stage 1b funding on:

1. Technical Parity: The 5th (Eastern) Corridor must be engineered to the same standard as the four western routes in the July 2026 PADR.
2. Actionability: No further funds for land options or ECI be released until AEMO's Final 2026 ISP is published.
3. Alternative Tech: Inclusion of a Marinus Link-style undergrounding analysis for any sensitive sections.

Assessment of Business Interruption and Tech-Stranding in High-Intensity Farming Zones

The Mid North's high-rainfall cropping corridor (Waterloo, Marrabel, Saddleworth, Riverton, Eudunda and Manoora) is one of the State's most capital-dense agricultural zones. Routing high-voltage transmission through this high-yield country would permanently fragment operations, constrain farm productivity, and elevate safety, biosecurity, and cost risks—undermining regional resilience and disrupting family farms. In an era where land prices have outpaced production growth, our family farms rely on AgTech and precision technology to remain solvent.

1. The High-Intensity Economic Profile of the Mid North Region

The Mid North is a distinct economic zone where business models are dictated by extreme capital entry costs and a tightening "cost-price squeeze."

- **The 30-Year Margin Crisis:** While commodity prices for grain have remained largely stagnant (1.5-2x growth) in real terms over the last three decades, input costs (fertilizer, fuel, machinery, and labor) have surged by 3x to 5x.
- **Capital Investment vs Productivity:** The business cost-squeeze combined with soaring land prices, means that any operational acreage lost or degraded by transmission easements cannot be replaced in the current market without a net-negative return on investment. SA is uniquely majority generational & family-owned; these businesses have no "corporate buffer" to absorb the devaluation of their primary asset.
- Mid North Intensive cropping system lead the way in: Precision agriculture (GPS autosteer, RTK networks, variable-rate inputs) — submitter-provided. Sustainable intensification (soil stewardship, minimum tillage, targeted nutrition) — common industry practice in the region. Digital agriculture (drones for mapping/monitoring, yield analytics, remote crop checks) — submitter-provided and widely adopted in advanced broadacre systems.
- These advances reduce fuel, optimise inputs, and improve soil outcomes—directly supporting SA's climate-resilience goals. Infrastructure that degrades GNSS/RTK, drone operations, or broadacre efficiency risks reversing these and future growth of our sector.

2. Impact of High-Voltage Transmission Lines in the Mid North

- **Logistical Choke Points:** Modern operations utilize machinery (36m–48m spray booms) and high-clearance headers. High-voltage tower placements create physical "dead zones" and turning-circle obstructions.
- **Productivity Restrictions:** Towers placed in-paddock necessitate detours representing significant labor and fuel costs when multiplied across high-number of seasonal passes required in intensive cropping operations in these areas (sowing, spraying, spreading, harvesting). Fragmentation often leaves "triangular" or "wedge" parcels of land that become unworkable, effectively turning high-value arable land into low-value, high-maintenance weeds/fire-risk zones.

- **Insurance Liability & Premiums:** Experience in other states (VIC/NSW) shows that introducing these high voltage infrastructure into a rural settings can skyrocket farm insurance costs.
- **Biosecurity risks:** many more independent land holders across the mid north and varying management practices leads to increased biosecurity risks (weed and disease spread) throughout both construction and lifelong maintenance of the line. Pastoral country has larger land holdings and hence fewer landholders - decreasing the number of clean downs and risk of biosecurity breeches.
- **Maintenance of weeds around towers:** The headlands around towers and bare ground associated with clearance zones and under the towers themselves become a breeding zone for weeds, unless extensive maintenance and control is undertaken by, assuredly, the land holder. This is a considerable labour and input intensive operation, whereas land use is not changed under and around towers in pastoral country and so this is not a factor.

3. Technological Obsolescence: Stranding AgTech Assets

The Mid North leads in Precision Agriculture (AgTech). The proposed high-voltage infrastructure threatens to render millions in private investment obsolete.

- **GNSS/RTK Interference:** High-voltage transmission lines produce electromagnetic interference (EMI) that causes "signal drift" in Global Navigation Satellite Systems. A signal drop-out can affect maps for the entire paddock.
- **Drone Exclusion Zones:** Automation via drones & robotics for crop monitoring and targeted spraying is a key "Sustainability" benchmark, & reduces chemical usage by enormous margins, and Mid-North growers are some of the first adopters of this technology, High-voltage transmission lines create "no-fly" hazards and EMI zones that lock farmers into higher-carbon, manual operations.
- **Asset Devaluation:** The introduction of easements have been shown to have a direct, negative impact on the Market Value of the property. Unlike marginal grazing land, high-yield cropping land is valued on its uninterrupted efficiency. A transmission corridor can devalue the underlying asset by a percentage far exceeding the one-off compensation payment.

4. Demographic & Social License Risk

The proposed 5th corridor east of Goyder's Line extends into marginal grazing country. Routing through the 5th corridor significantly reduces business operational risks outlines above and addresses the following:

- **Population Density:** The Mid North has a significantly higher density of homesteads. Every kilometer of transmission interacts with more independent business owners and residents than the alternative.
- **Risk to Shrinking Communities:** Regional communities in the Mid North are already under pressure. By increasing the financial and operational strain on generational farmers the State risks accelerating the decline of these townships.

- **Cumulative Stress:** Our families live, work, and sleep within the immediate vicinity of these lines. The social friction and health concerns in a high-density farming zone are exponentially higher than in the sparsely populated eastern grazing country.