17 November 2026

Australian Energy Regulator
Energy Innovation Toolkit
By email: regulatorysandbox@aer.gov.au

Re: Essential Energy islandable microgrids sandbox trial waiver application – consultation notice of 30 September 2026 (AER reference 5143235)

Dear Energy Innovation Toolkit team,

About Volt and our interest

Volt Advisory Group supports Essential Energy's application and asks the AER to set conditions that keep community-owned islandable microgrids in scope.

Volt is a Brisbane-based engineering and advisory firm that develops renewable microgrids with First Nations communities, and the ownership structures that let communities own them. Our projects include the Wujal Wujal community microgrid in Far North Queensland, now in delivery with Disaster Ready Fund support, and the Daintree microgrid. Several of our projects are in Queensland, where communities face the same regulatory gap this application addresses.

Support for the trial

We support the trial because it tests, in the field, the regulatory treatment that fringe-of-grid communities need now (Questions 1 and 2).

- **The need is real.** Communities at the end of long feeders face frequent, lengthy outages that cut power to clinics, water treatment and communications. Islandable microgrids are often the least-cost way to fix this.
- **Evidence beats theory.** As the notice says, the current framework does not neatly accommodate systems that move between grid-connected and islanded operation. Real operating evidence is the best input to the 'temporary SAPS' rule change AEMO intends to propose.
- **A program-level waiver makes sense.** Site details change as community engagement proceeds, so a framework with clear guardrails and site notification to the AER is more practical than a waiver per site.

Recommended conditions

We suggest three conditions so the trial produces evidence that works for every ownership model, not just network ownership (Question 4).

1. **Keep community and First Nations ownership genuinely open.** The application is ownership-neutral on paper. We ask the AER to require Essential Energy to report, for each site, which ownership models were considered and offered to host communities, and to show at least one community or third-party owned deployment within the trial where a community wants it. The RAB and ring-fencing guardrails should not make community ownership harder than network ownership.
2. **Publish the technical protocols.** Islanded-mode protection, fault clearance (NER S5.1.9), earthing and reconnection protocols are the hardest technical questions. We ask that the approved protocols and performance results be published, not only summarised, so other networks and proponents can build on them.
3. **Share the benefits with host communities.** Where microgrid assets earn revenue (for example from surplus energy), the conditions should allow a share to flow to the host

community or community owner, alongside the proposed treatment of RAB-funded revenue. Reporting should cover outage hours avoided, local jobs and training, and diesel displaced.

Evidence Volt can offer

Volt is working on the same technical barrier, protection while islanded, at Wujal Wujal, and we are willing to share our findings with the AER, AEMO and Essential Energy.

- **The site.** Wujal Wujal sits at the end of a long rural feeder and experiences frequent, lengthy outages. A community-owned solar and battery system is being built there with Disaster Ready Fund support.
- **The problem.** Inverter-based batteries supply little fault current, so conventional protection may not detect faults once a section is islanded. Across the industry there is not yet an established connection pathway for a third-party battery that islands.
- **Our work.** Volt is developing and testing earthing, protection and operating-state architectures for this case, including a switchable high-voltage neutral earthing arrangement, working with the local network through its connection process. This is registered R&D, with experiments planned from late 2026.
- **Network collaboration.** Ergon Energy Network has been collaborative and engaged throughout, working with us to explore a community-owned microgrid despite technical requirements and processes outside its normal connection pathway.
- **The offer.** We can share de-identified technical results and our experience of building a connection case with a network that has no standard, to inform the AER's conditions and a future framework.

National relevance and the rule change

The barriers in this application are national, so the trial's lessons should be designed for use beyond NSW (Questions 13 and 15).

- **Other networks face the same rules.** Communities in Queensland and elsewhere need the same relief from generator registration and islanded-mode technical requirements. We encourage the AER to make the waiver conditions and reporting usable as a template for other networks and proponents.
- **The rule change should cover every ownership model.** We support the AER's interest in integrating 'temporary SAPS' into the framework. That reform should cover community-owned and First Nations-owned microgrids and fair revenue-sharing arrangements, not only network-owned assets. Volt intends to take part in that process.

Close

We thank the AER for considering this submission after the closing date, and we are happy to discuss it or to brief the AER and Essential Energy on our Wujal Wujal work. This submission may be published.

Yours sincerely,



Philip Keogan
Director, Volt Advisory Group Pty Ltd

