Australian Energy Regulator

Lodged electronically to regulatorysandbox@aer.gov.au

Essential Energy islandable microgrids sandbox trial waiver application

Nexa Advisory welcomes the opportunity to respond to the Australian Energy Regulator's (AER) consultation on Essential Energy's islandable microgrids sandbox trial waiver application.

Nexa is an advisory firm with an unwavering focus to accelerate the clean energy transition in a way that provides secure, reliable, and affordable power for consumers of all types. Nexa Advisory is a team of experienced specialists in the energy market, policy and regulation design, stakeholder engagement, and advocacy. We work with public and private clients including renewable energy developers, investors and climate impact philanthropists to help them get Australia's clean energy transition done.

Nexa Advisory supports the development of islandable microgrids where they can efficiently improve reliability and resilience for regional and remote communities. The potential value of microgrids, however, does not establish that Essential Energy should own or operate generation and storage, provide other services, or be relieved from the safeguards that ordinarily separate regulated distribution services from other activities.

Our submission focuses on the proposed ring-fencing exemptions and their implications for efficient investment, competition and consumer protection, rather than the technical requirements for islanded operation.

Key recommendations

Nexa recommends that the AER not grant Essential Energy's proposed five-year, program-wide waiver in its current form. The application does not adequately demonstrate the need for such extensive exemptions or provide sufficient assurance that the resulting investments and delivery arrangements will be efficient and in consumers' long-term interests.

If the AER nevertheless decides to proceed, Nexa recommends that it:

1. **Limit the scope of the waiver.** Require project-specific approval, supported by evidence that each exemption is necessary and that less restrictive alternatives would not deliver better outcomes. Additional projects or material changes, including government-supported deployments, should require further AER approval. Essential's proposed restrictions on activities covered by the trial, including those in section 3.6 of its application, should be incorporated into binding waiver conditions.
2. **Ensure efficient investment and competitive delivery.** Require a comparative assessment of feasible solutions, including the status quo, and genuine market

Copyright Nexa Advisory

testing of alternative delivery models. Independent providers should have access to the network information needed to develop credible proposals.

3. **Protect regulated consumers from inefficient expenditure and inappropriate risks.** Establish clear limits on expenditure proposed for recovery from regulated consumers, with transparent and independently verified cost-allocation arrangements and clear provisions for allocating risks and sharing commercial revenues. These arrangements should be reassessed where asset use or commercial activities change materially.
4. **Demonstrate meaningful regulatory learning.** Publish an assessment of what Essential's previous ring-fencing waivers have delivered and how those lessons inform the current decision. Establish clear objectives, performance measures and public reporting requirements for the microgrid trial, including lessons from projects that are rejected, withdrawn or substituted. The AER should publish its own evaluation of trial outcomes, including whether the exemptions remain justified.
5. **Establish clear exit arrangements and consumer protections.** Require project-specific plans identifying how each microgrid would comply with the regulatory framework applying after the waiver expires, including any changes to ownership or operating arrangements, associated costs and their allocation. Explain how consumers will be protected given the absence of an individual opt-out.

The necessity of the ring-fencing exemptions has not been established

Essential seeks exemptions from five provisions of the distribution ring-fencing guideline, covering restrictions on providing other services and third-party use of new energy storage devices, as well as physical, staff and branding separation requirements. It proposes to apply these exemptions across a range of locations, technologies and delivery models under a single program-wide waiver.[1]

The request raises two distinct questions. First, does Essential need to undertake these activities itself, or could independent providers deliver the same benefits? Second, if Essential does undertake these activities, why would it also need exemptions from the requirements separating its staff, offices and branding? In both cases, the benefits of relaxing the requirements need to be weighed against the risks to competition.

Essential argues that integrated ownership and operation would reduce technical and contractual complexity, particularly during early deployments, and make it easier to draw lessons from the trial.[2] These may be practical advantages, but Essential has not shown that alternative ownership and delivery models would be less efficient. Its commitment to competitively procure equipment and construction does not establish whether independent

[1] AER, *Essential Energy islandable microgrids sandbox trial waiver application – consultation notice* , September 2026, p. 5; Essential Energy, Sandboxing Application, *Islandable microgrids*, August 2026, pp. 26-27, Table 7.
[2] Essential Energy, Sandboxing Application, *Islandable microgrids*, August 2026, p. 30.

providers could deliver the services themselves more efficiently. [3] Nor does Essential adequately explain what problems the staff, office and branding requirements would create for the trial, or why the exceptions existing under the current ring-fencing guideline would be insufficient.

Nexa has consistently argued that distribution network service provider (DNSP) participation in services capable of competitive provision should be justified by clear consumer benefits, and that ring-fencing waivers should be a last resort.[4] The AER's current ring-fencing guideline Explanatory Statement also recognises the importance of competition and cross-subsidisation risks when assessing waivers.[5] Although this application is being considered under the separate sandboxing framework, these economic considerations remain relevant. The AER should therefore require Essential to explain why each exemption is needed, why alternatives would not work as well, and how consumers would benefit from relaxing the existing protections. The sandbox framework should not become a means of avoiding scrutiny of the competition risks that ring-fencing is intended to address.

Consumers need assurance of efficient investment, not merely consultation

Essential proposes to use its established network planning processes to determine the appropriate scale of each microgrid, taking account of alternatives such as diesel generation and conventional network investments. It also proposes to limit regulatory asset base funding to the portion of each asset required to deliver network services.[6] These are useful commitments, but they do not establish that the investments ultimately made under the waiver will be prudent and efficient. With individual projects and their configurations yet to be determined, the AER has no project-level evidence demonstrating that the proposed expenditure is justified against feasible alternatives, including the status quo. Such an assessment should consider not only the relative costs of different solutions, but also whether the reliability and resilience improvements they deliver justify the additional expenditure.

The AER has recently reinforced the importance of rigorous investment assessment in its *Better Resets Handbook*. Its October 2026 revision expressly states that consumer support 'does not by itself establish that the proposal satisfies the relevant assessment criteria under the Law and Rules'.[7] The *Handbook* also calls for quantitative cost-benefit analysis of feasible alternatives, including non-network options, for material investment proposals.[8] Although these requirements concern regulatory resets rather than sandbox waivers, the underlying economic principle is equally relevant. Community consultation can help establish what outcomes consumers value but cannot substitute for assessing whether those outcomes are

---

[3] *Ibid.*
[4] See, for example, Nexa Advisory, *Submission – Community Batteries for Household Solar Program ring-fencing class waiver*, January 2023; Nexa Advisory, *Rule Change Request – Protecting Consumers by Enhancing Competition in Distributed/Consumer Energy Resources and Services in the NEM*, March 2026.
[5] *Ring-fencing Guideline (Electricity Distribution)* — *Explanatory Statement*, version 4, February 2025, pp. 5 and 11.
[6] Essential Energy, *Sandboxing Application*, *Islandable microgrids*, August 2026, pp. 29-30.
[7] AER, *Better Resets Handbook*, October 2026, p. 14.
[8] *Ibid.*, p. 25.

being delivered efficiently. This is particularly important given that customers will not be able to opt out of Essential's trial.

The financial consequences for consumers also warrant closer scrutiny. According to the AER, Essential expects approximately $2.6 million of its $23.8 million microgrid program to be funded through the regulatory asset base, with third-party funding sought for the balance.[9] However, these figures are indicative rather than binding limits on expenditure recoverable from consumers. While granting the waiver would not itself approve capital expenditure, subsequent regulatory reviews may provide limited opportunity to exclude inefficient investment once it has been incurred. The absence of project-level evidence of investment efficiency and clear limits on expenditure recoverable from consumers is therefore another reason the AER should not approve the proposed program-wide waiver. Any narrower trial should be supported by these safeguards before approval. Appropriate cost allocation and revenue-sharing arrangements remain important, but neither establishes that the underlying investment was efficient.

The AER should account for what earlier battery waivers have delivered

Essential has already received two individual ring-fencing waivers for battery trials: the Sovereign Hills battery and the pole-top battery trial. It has also participated in the Commonwealth community battery program under a class waiver. These earlier arrangements provide an opportunity to assess whether the anticipated benefits of regulatory exemptions have been realised and what lessons should inform the AER's consideration of further waivers.

In its 2022 Sovereign Hills battery waiver application, Essential stated that the battery would defer the need for a new zone substation from 2028 to 2033.[10] However, in July 2024 Essential selected a new Sovereign Hills zone substation, with commissioning now planned for mid-2027.[11] Essential's project FAQs explicitly address whether the existing battery could be used instead of the substation, explaining that the battery is designed to maximise solar generation, exports and network utilisation, rather than provide the continuous power required by the growing community.[12] Substantial demand growth and reliability risks may explain the change in timing. The claimed deferral relates to the underlying network investment rather than the waiver itself. Nevertheless, the difference between the original expectations and subsequent investment decisions warrants an explanation of what, if any, network expenditure the battery has actually deferred.

The Sovereign Hills waiver allowed Essential to lease spare battery capacity to AGL for market services; a waiver was not required merely to own a battery providing network services. Yet the

---

[9] AER, *Essential Energy islandable microgrids sandbox trial waiver application – consultation notice* , September 2026, p. 8.
[10] Essential Energy, *Sovereign Hills Ring-fencing Waiver Application*, July 2022, p. 13. The waiver was granted, though the battery did not become fully operational until 31 July 2024, see Essential Energy, *Electricity Distribution Ring-fencing Annual Compliance Report*, April 2025.
[11] Essential Energy, *Final Project Assessment Report – Providing Supply to Sovereign Hills Area*, July 2024, pp. 3, 5 and 11-12; Essential Energy, *Sovereign Hills 33/11kV Zone Substation*, project information and FAQs, updated May 2026.
[12] Essential Energy, *Sovereign Hills 33/11kV Zone Substation*, project information and FAQs, updated May 2026.

published reporting provides limited evidence of the benefits achieved through this commercial arrangement. Essential's 2025 ring-fencing compliance report states that testing of frequency control ancillary services (FCAS) did not achieve the required response time, and it is uncertain whether this service will be pursued further.[13] The reports also do not establish how actual commercial revenues compare with the original forecasts. This is relevant because the allocation of 57 per cent of the battery's costs to Essential's regulatory asset base was determined using the present values of forecast network and market revenues.[14]

The AER should also account for what it has learned. When granting the Sovereign Hills waiver in 2022, the AER acknowledged that it had not examined Essential's cost-allocation methodology, expected-use modelling or tender documents. It indicated that it would monitor actual use and could revisit the cost allocation if actual use or revenues differed from forecasts.[15] The subsequent independent compliance audit verified reported usage calculations and the application of the cost allocation, but did not assess whether the original methodology remained appropriate or the economic benefits achieved.[16] Before granting substantially broader exemptions, the AER should explain what the earlier trial has demonstrated about the benefits of allowing network assets to be used for market services, the appropriateness of the associated cost allocation, and the implications for consumer protection.

The proposed waiver leaves too much unresolved

Essential seeks a five-year, program-wide waiver covering up to 10 microgrids, with flexibility to substitute locations and potentially exceed this limit for additional government-supported projects. Under its proposal, eligible sites could be substituted without varying the waiver, while government-supported projects could be added beyond the proposed cap without further approval, provided they meet specified conditions and the AER is notified. The particular locations, technical configurations and ownership arrangements would be determined as the program progresses.[17]

Essential may need to change its project plans as information about site conditions, costs and community preferences becomes available. However, this does not justify allowing the same regulatory exemptions to apply automatically to different projects. Changes in location, scale, technology or ownership arrangements may materially affect the need for particular exemptions and the associated competition risks. Essential's proposed eligibility criteria and reporting arrangements provide some safeguards, but do not replace the need for the AER to assess these matters before a project proceeds under the waiver. Nor does government funding justify extending the waiver's scope without further scrutiny.

---

[13] Essential Energy, *Electricity Distribution Ring-fencing Annual Compliance Report 2025*, April 2026, p. 7.
[14] Essential Energy, *Sovereign Hills Battery Ring-fencing Annual Compliance Report 2025*, April 2026, pp. 2 and 12.
[15] AER, *Essential Energy – Ring-fencing waiver, Final Decision*, August 2022, p. 2.
[16] KPMG, *Independent Reasonable Assurance report to the Directors of Essential Energy (for 2025)*, pp. 27-28.
[17] AER, *Essential Energy islandable microgrids sandbox trial waiver application – consultation notice* , September 2026, pp. 8-10; Essential Energy, *Sandboxing Application*, *Islandable microgrids*, August 2026, pp. 32-33.

The proposed exit arrangements raise a related concern. Essential expects to transition each microgrid to the most suitable regulatory framework available when the waiver expires, potentially including a future framework for temporary stand-alone power systems.[18] However, the assets will have operating lives well beyond the five-year waiver, and transitioning to the applicable regulatory framework could require changes to ownership or operating arrangements, including selling assets, restructuring contracts or separating activities. Essential has not adequately explained what such a transition might involve, how any remaining value in the regulatory asset base would be treated, or who would bear the associated costs. These potential costs of compliance should be considered before investment decisions are made, rather than left to be resolved when the waiver expires.

These uncertainties risk creating investments and operating arrangements that are difficult or costly to unwind, potentially placing pressure on future regulatory decisions. They reinforce the case against granting the proposed program-wide waiver before the scope of the trial and arrangements for its conclusion are more clearly established.

Concluding remarks

Nexa supports innovation in network service delivery where it improves outcomes for consumers. However, the potential benefits of islandable microgrids do not justify broad exemptions from ring-fencing requirements without evidence that those exemptions are necessary and deliver better outcomes than the alternatives.

The AER should ensure that the proposed trial does not weaken protections for consumers and competition or create arrangements that prove difficult and costly to unwind.

Thank you for the opportunity to provide input into the consultation process. We welcome the opportunity to further discuss any aspect of our submission – please contact either myself on [redacted] or Dr Yuliya Moore, Director – Regulation and Policy Strategy, [redacted].

Yours sincerely,

Stephanie Bashir
CEO
Nexa Advisory

[18] AER, *Essential Energy islandable microgrids sandbox trial waiver application – consultation notice* , September 2026, pp. 10-11; Essential Energy, *Sandboxing Application*, *Islandable microgrids*, August 2026, pp. 33-34, 39.