8 May 2025

Ms Stephanie Jolly
Executive General Manager Consumers, Policy & Markets
Australian Energy Regulator
GPO Box 3131
Canberra ACT 2601

[redacted]

Dear Ms Jolly

Energex's waiver application against the Australian Energy Regulator's Ring-fencing Guidelines – six new energy storage devices

Under the National Electricity Rules, Energex Limited (Energex) must comply with the Australian Energy Regulator's (AER) Electricity Distribution Ring-fencing Guideline (the Guideline).[1] The Guideline permits Energex to apply for a waiver of the legal separation obligations. Energex is seeking a waiver for six new energy storage devices under the streamlined waiver process.

Energex looks forward to providing continued assistance to the AER in considering our enclosed application. Should you require additional information or wish to discuss any aspect of this application, please do not hesitate to contact myself, or Andrew Bozin, Policy and Regulatory Reform Specialist, on [redacted]

Yours sincerely

[redacted]

Trudy Fraser
Acting Executive General Manager Regulation
[redacted]

Encl: Energex's streamlined waiver application

[1] Clause 6.17.2.

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New Energy Storage Devices Waiver Application

This application is for DNSPs who wish to apply for a waiver of its obligation under clause 3.1 of the Electricity Distribution Ring-fencing Guideline in respect of a New Energy Storage Device and believe they meet the criteria for a streamlined waiver as set out in Explanatory Statement to the guideline (Version 3). If applying for a waiver of obligations other than clause 3.1, a full waiver assessment process will be needed.

Please attach any relevant documents.

Applicant Information

1	**Name(s)**	Energex Limited (Energex)
2	**Project description**	Energex is undertaking the installation of six battery energy storage systems (BESS) under Stage 3 of Energy Queensland's Local Network Battery Plan. The BESS will be connected to the Energex distribution network and will provide value to consumers via network support services and National Electricity Market (NEM) participation through a retail market partner. Each of the BESS will be 4MW / 8MWh. The locations in which the BESS will connect to Energex's distribution network in Southeast Queensland are outlined in confidential Appendix A. The BESS will be connected in areas where there is high and forecast to increase local distributed energy resource (DER) penetration, and where the BESS could reduce network risk. BESS units are considered fundamental to a renewables-enabled future energy system, because they can provide unique services (which are not yet valued or difficult to value), including: • supporting system strength by providing vertical inertia; and • providing local network support, such as capacity and voltage management, in areas with low short circuit ratios and areas with large and growing penetrations of solar photovoltaic (PV). The BESS will be available for use by a third party in accordance with the terms of an arms-length commercial arrangement, for participation in wholesale energy arbitrage, ancillary services, and

other emerging markets, further benefiting customers through lower overall energy costs.

For Stage 2 of the Local Network Battery Plan, Energex in partnership with Ergon Energy Corporation Limited (Ergon Energy Network), engaged with third parties via a competitive expression of interest (EOI) during 2023. This involved a public QTenders notification[1] and a direct approach to 18 retailers. The EOI included the option to incorporate additional BESS at later stages.

The subsequent shortlisting process resulted in in-depth negotiations with three retailers, with two retailers proceeding in October 2023 because of their more favourable offers, including more advantageous contractual terms and conditions. BESS capacity sharing contracts with these two retailers were completed in December 2024 after detailed negotiations.

Energex and Ergon Energy Network (which is also deploying six BESS under Stage 3) jointly approached these two successful retailers in February 2025 seeking EOI pricing for the Stage 3 BESS across the two distribution networks. Following this process, [redacted] was selected as the retail partner for the Energex Stage 3 BESS, subject to the AER approving this waiver application.

Adding the Stage 3 BESS as schedules to the existing BESS capacity sharing contract will significantly speed up the contract execution phase for these latest BESS. It also avoids the lengthy development of new connection and communication systems between a new retail partner and Energex to orchestrate the operation of each BESS. Entirely new contracts and systems could not have been implemented in time for the commissioning of the Stage 3 BESS, which is expected in July-September 2025.

Retail partner access to the BESS will also be subject to the conditions imposed by Energex, including:

- the ability for the network business to use on-call capacity of the BESS for demand response to reduce network risks;
- BESS voltage performance for supporting network voltage management;

[1] https://qtenders.epw.qld.gov.au/qtenders/tender/display/tender-details.do?id=48262&action=display-tender-details.

		• the BESS can only be operated within a Dynamic Operating Envelope and therefore cannot add to network capacity risks when operated by a third party; • the BESS will be available to the third party to participate in markets of their choice, likely including wholesale market arbitrage and frequency control ancillary services markets; and • potential participation in emerging system stability markets, leveraging grid forming capabilities of the systems.
3	**Reason for waiver**	**Rationale for supplying excess capacity to third parties** Distribution connected BESS are warranted due to the unprecedented adoption of roof top solar PV and its effect on minimum system load and the very large need for energy storage required to safely and reliably operate energy systems of the future. Minimum system load on our network is falling faster than peak demand is growing, signalling the criticality of the minimum system load challenge and the need to use every credible means for an efficient resolution of the problem. Energex is forecasting there could be about 6,803MVA of solar PV inverter capacity connected to its distribution network by 2030, compared to a forecast peak demand of 6,049MW.[2] In addition, AEMO's 2024 Integrated System Plan forecasts under the Step Change scenario the need across the NEM for investment that would: • Almost quadruple the firming capacity from sources alternative to coal that can respond to a dispatch signal, using utility-scale BESS, pumped hydro and other hydro, coordinated consumer energy resources such as Virtual Power Plants, and gas-powered generation. This includes 49GW / 646GWh of dispatchable storage, as well as 16GW of flexible gas. • Support a four-fold increase in rooftop solar capacity reaching 72GW by 2050.[3] The challenges to our network and the whole power system were also acknowledged by AEMO in its 2024 Electricity Statement of

[2] Ergon Energy and Energex, *2024 Strategic Forecasting Annual Report*, October 2024, p 17 (Fast Scenario for 2030 Solar Inverter Capacity) and p 20 (2029-30 Summer 10% PoE forecast peak demand).

[3] AEMO, *2024 Integrated System Plan for the National Electricity Market: A roadmap for the energy transition*, p 11-12.

Opportunities, including the need for accelerated complementary market-based and operational support to address the risks to security and reliability of the power system.[4] BESS will play an integral part in addressing these risks.

There also continues to be an under-investment in distribution-connected energy storage that contributes to network services. As illustrated in Section 8, this under-investment has been demonstrated by Energex's unsuccessful efforts to commercially contract with market-led energy storage, through regulatory investment tests for distribution (RIT-D) and when seeking credible non-network and flexible demand response solutions to mitigate network constraints. This highlights that capacity sharing and its commerciality remain difficult, with the trade-offs largely unknown. Recognising that distribution network connected BESS have a key role to play in addressing the issues outlined further above, the Queensland Government has provided funding to Energex for the six BESS that are the subject of this waiver application.[5]

The proposed waiver will enable Energex to maximise the overall benefits of these BESS by sharing BESS capacity with retail partners. This would occur while limiting the cost to customers, with Energex excluding the BESS from its regulated asset base (RAB).

Estimate of the expected annual utilisation of battery capacity

Despite Energex now sharing the capacity of some of its initial BESS with a retail partner, there is currently insufficient data available to provide a meaningful estimate of the expected annual utilisation of BESS capacity for distribution services and for other services in contestable markets.

Energex is committed to fulfilling the standard energy storage ring-fencing waiver requirement to provide a comparison of the uses (volume and frequency) of the BESS that confirms its different uses, as part of its annual ring-fencing compliance assessments. This will help provide the evidence base for distribution network service providers to develop robust estimates of expected annual capacity utilisation for BESS installed in the future.

[4] AEMO, *2024 Electricity Statement of Opportunities, August 2024*, p 42.

[5] https://statements.qld.gov.au/statements/99503.

		We will also continue to examine the trade-offs associated with different levels of utilisation across the services (including how and when each service is offered), with the aim of maximising the total value. This information will inform operational models for the transition to more complex and interactive grids managed by distribution system operators.
4	**Period of the waiver**	Energex proposes the waiver commences immediately upon commissioning of each BESS and expires on 30 June 2040, which aligns with the estimated life of the BESS.

Supporting information for waiver application

This section is to provide information that will assist the AER's assessment of whether the benefits outweigh the costs for the battery project.

5	**Costs if waiver not granted**	If the waiver is refused, Energex will only be able to use the BESS for distribution services and not use the BESS to the fullest extent possible to provide additional "other services". In the absence of an established value-stacked market, investor hesitancy will likely hinder the establishment of a market in time to address the impacts of rapidly declining minimum demand on the security and reliability of our network. For example, there has been a slow build of capacity for the wholesale demand response mechanism, with a total registered capacity of only 63 MW across New South Wales, Victoria, South Australia and Queensland.[6] Overarchingly, refusal of the waiver would result in: • the benefits described in section 6 below not being realised; • market benefits, through shared learnings, not being realised; and • alternative solutions to address the challenges associated with increasing minimum demand into the future, needing to be delivered as part of Energex's common distribution services. Additionally, the refusal of this waiver application would be a missed opportunity to help relieve the ongoing tension between

[6] AEMO, *Wholesale Demand Response Annual Report, June 2024*, p 3.

		higher energy prices for customers, with market volatility forecast to increase as the transition to Net Zero accelerates, and poorer network performance in the long term.

6	**Benefits if waiver granted**	The National Electricity Objective is to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of customers of electricity with respect to:
		• price, quality, safety and reliability and security of supply of electricity;
		• the reliability, safety, and security of the national electricity system;
		• the achievement of targets set by a participating jurisdiction—
		  ○ for reducing Australia's greenhouse gas emissions; or
		  ○ that are likely to contribute to reducing Australia's greenhouse gas emissions.
		
		The prior Energy Security Board also acknowledged the need for regulatory arrangements to evolve to support the impacts of two-way energy flows on the ability of networks to transport and deliver electricity safely, securely, and reliably.[7]
		
		In support of the imperatives outlined above, we consider Energex's ownership of the BESS and sharing of capacity with third parties can help deliver more efficient outcomes in the long term by:
		• demonstrating the shared value of distribution connected energy storage to a hesitant and immature market;
		• de-risking entry for private investors; and
		• informing regulatory decisions to support the creation of a deep and liquid energy storage market.
		
		In addition, the proposed arrangement would contribute to a more robust evidence base to inform the development of a mechanism to allocate costs and prevent cross-subsidisation taking into account future variations in the use of BESS' capacities. As noted by the AER, there is currently no well-established approach for how much of a BESS asset should be assigned to the RAB where it is not intended solely for network services. The AER also noted BESS

[7] ESB, *Summary of the final reform package and corresponding Energy Security Board recommendations*, p 4.

		are a new technology where the potential split between use for distribution and other contestable services is currently unknown, and use of a BESS may well change over time.[8]

Evidence demonstrating that the risk of cross subsidisation is sufficiently addressed or does not arise

Applications that sufficiently address risk of cross subsidisation or where the risk does not arise could be eligible for the streamlined waiver process.[9]

7	**Cost Allocation[10]**	The capital cost of the BESS for Energex under this program is $77.85 million, wholly funded by Queensland Government allocations and via Energy Queensland Limited (Energex's parent company). Each BESS arrangement will be treated in the same way as any other customer connection to the distribution network. The entire capital project including connection assets, BESS assets and associated control assets will be funded from the unregulated project funding. Energex will not use the Demand Management Innovation Allowance to meet any of the costs of the BESS. The BESS will be classified as unregulated assets and be excluded from Energex's RAB. The connection assets up to the BESS connection point will be treated as an Alternative Control Service connection, therefore the customer (i.e., unregulated project) will fund the connection assets upfront, which will then be transferred to the network RAB at zero cost to ensure the correct allocation of connection charges to the retailer. The ongoing maintenance of the BESS asset will be funded from unregulated project costs and be excluded from Energex's regulatory operating costs, consistent with the principles of our approved cost allocation methodology.

[8] AER, *Draft Electricity Distribution Ring-fencing Guideline – Explanatory statement (Version 3)*, p 44.

[9] AER, *Electricity Distribution Ring-fencing Guideline – Explanatory Statement (Version 3)*, p 29-31.

[10] For information on cost allocation methods, see AER, *Electricity Distribution Ring-fencing Guideline – Explanatory Statement (Version 3)*, p 35-36.

		The ongoing maintenance of the transferred connection assets is a standard control service, therefore the maintenance of the connection asset will be funded by the distributor (Energex) and recovered via network charges (Distribution Use of System charges), which will be paid by the retailer. For completeness, the: • BESS asset will include, inverters, batteries, transformers, protection equipment and communications and control equipment; and • connection assets will include the cable/wire, protection and power quality local network control and communication equipment.
8	**Process to engage third party suppliers of network services[11]**	Both Energex's and Ergon Energy Network's demand management programs demonstrate there is currently no established market for utilising behind the meter BESS for network support. Energex and its counterpart, Ergon Energy Network, have repeatedly tried to engage the market via mechanisms such as our online rewards maps.[12] Also, Energex was unable to reach contractual agreements with third-party BESS providers for two RIT-D processes where BESS were identified as the preferred options.[13] More recent RIT-D processes identify the potential for customer solar PV and BESS systems to help meet network needs, but there is no BESS uptake by business customers with larger solar PV systems in the relevant network areas.[14] Similarly, Energex also engages the market annually, via its Demand Side Engagement Register (and website advertising), to request proposals for non-network services as alternatives to network investment for approximately 20 feeders per calendar year, where the estimated cost of addressing the identified need falls below the threshold at which a RIT-D is required.[15]

[11] AER, *Electricity Distribution Ring-fencing Guideline – Explanatory Statement (Version 3)*, p 34-37.

[12] https://www.ergon.com.au/network/manage-your-energy/cashback-rewards-program/request-for-proposals-and-eoi and https://www.energex.com.au/manage-your-energy/cashback-rewards-program/request-for-proposals-and-eoi/feeder-limitations.

[13] https://www.energex.com.au/__data/assets/pdf_file/0015/1002165/Coomera-Final-Project-Assessment-Report.pdf and https://www.energex.com.au/__data/assets/pdf_file/0020/1002188/Logan-Village-Final-Project-Assessment-Report.pdf.

[14] For example, see https://www.energex.com.au/__data/assets/pdf_file/0009/1478457/Brisbane-CBD-Final-Project-Assessment-Report.pdf, p 21.

[15] https://www.energex.com.au/__data/assets/pdf_file/0005/1079339/Energex-Request-for-Proposal-Distribution-Feeder-Limitations-2024-25.pdf.

		While we have received some market interest through these engagements, we have been unable to contract any energy storage due to a combination of lack of interest, absence of commercial value, the targeted nature of the distribution needs and the associated network requirements. Despite this, we continue to actively engage with the market for these services. The locations in which the BESS are connected are areas with high and forecast to increase local DER penetration, and where the BESS could support network risk reduction. This, coupled with the fact the BESS are not being funded through charges for standard control services, reflects Energex's commitment to the provision of non-network alternatives, including energy storage, to address identified needs on our network, in ways that minimise impacts on customers' electricity bills.
9	**Any other information**	As part of this arrangement, Energex is committed to publicly sharing information, which may include total capacity installed, impacts of operating envelopes, connection arrangements, impacts of network and market needs and network benefits, where doing so does not compromise customer interests, network security, ring-fencing requirements or the commercially sensitive information of any party. Such information can be shared via publication of information and presentations at conferences.[16] If the AER determines it is necessary to include reporting conditions when granting a waiver, Energex would prefer that it provide a year-to-year comparison of the use of the BESS 'on an annual basis'. This would provide a degree of flexibility and enable Energex to package this reporting with its annual ring-fencing compliance report.

[16] For example, the Solar and Storage Live Australia 2024 and 2025 Conferences, Latest Learnings from Energy Queensland's Battery Program presentations, 2 May 2024 and 26 March 2025.

Appendix A – Confidential Site Details

Stage 3 of the Local Neighbourhood Battery Plan

[redacted]

Site 1 – 4 MW / 8 MWh BESS

Location: Cornubia, Q4130

[redacted]

Site 2 – 4 MW / 8 MWh BESS

Location: Hollywell, Q4216

[redacted]

Site 3 – 4 MW / 8 MWh BESS

Location: Jimboomba, Q4280

[redacted]

Site 4 – 4 MW / 8 MWh BESS

Location: Mooloolaba, Q44557

[redacted]

[redacted]

[redacted]

Site 5 – 4 MW / 8 MWh BESS

Location: Woodridge, Q4114

[redacted]

[redacted]

[redacted]

[redacted]

Site 6 – 4 MW / 8 MWh BESS

Location: Yatala, Q4207

[redacted]

[redacted]

[redacted]

[redacted]

Notes

- [redacted]
- [redacted]
  - [redacted]
- [redacted]
- [redacted]