



Ergon Energy Network HV Waiver 2025

Report on comparison of battery uses (to comply with clause
3.1 of Ring-Fencing Guidelines)



Part of Energy Queensland

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1 INTRODUCTION

This report outlines the ring-fencing waivers granted by the Australian Energy Regulator (AER) to Ergon Energy Network for the operation and trading of high-voltage (HV) battery systems and summarises the associated reporting obligations. These waivers apply across multiple stages of HV battery deployment, including Stage 1 batteries, Stage 2 batteries, and the Bohle Plains Battery Energy Storage System (BESS).

The purpose of this report is to demonstrate Ergon Energy Network's compliance with the conditions set out in each waiver. It provides an overview of the HV batteries that were trading during the 2025 calendar year and presents the key conclusions derived from the annual assessment. The report also outlines the methodology used to compile the information required under the AER's ring-fencing obligations.

Detailed usage data, including comparisons of battery utilisation, volumes, frequency of services, and benefit calculations as required under each waiver is provided.

2 STAGE 1 HV BATTERIES

2.1 Waiver Overview

On 4 March 2022, the AER granted Ergon Energy Network a waiver from compliance with clause 3.1 of the Ring-fencing Guideline. This waiver enables Ergon Energy Network to supply excess capacity from five identified HV batteries to Ergon Energy Retail (EEQ)

2.2 Annual Reporting Requirements

Under the waiver conditions, Ergon Energy Network must provide an annual report containing:

1. A comparison of each battery's usage (volume and frequency) clearly distinguishing:
 - Ergon Energy Network operational usage
 - Spare capacity leased to EEQ
2. An explanation of any differences identified between these two use categories

An independent assessor must verify the accuracy of this information as part of the annual ring-fencing compliance assessment

3 STAGE 2 HV BATTERIES

3.1 Waiver Overview

On 4 December 2023, the AER granted a further waiver allowing Ergon Energy Network to supply excess capacity from HV batteries to EEQ and Origin Energy.

3.2 Annual Reporting Requirements

As part of this waiver, Ergon Energy Network must report annually on:

- Year-to-year comparison of battery usage (volume and frequency)
- Explanations for any significant changes observed between reporting periods

The independent assessor must confirm the accuracy of annual usage volumes as part of the compliance assessment

4 BOHLE PLAINS HV BATTERY

4.1 Waiver Overview

On 27 March 2024, the AER granted a waiver permitting Ergon Energy Network to supply excess capacity from the Bohle Plains Battery Energy Storage System (BESS) to EEQ.

4.2 Annual Reporting Requirements

The waiver requires Ergon Energy Network to report the following for the most recent financial year:

- Total quantified benefits derived from all services provided by the battery
- Total quantified benefits from direct control services
- Total quantified benefits from other distribution services and other services
- A comparison of uses (volume and frequency) between:

Ergon Energy Network

The contracted third party

This comparison must reference the initial proposed allocation as the baseline.

5 2025 HV BATTERY TRADING SUMMARY

During the 2025 calendar year, the following batteries were trading:

5.1 Stage 1 HV Batteries

- Black River
- Tanby
- Torquay

- Kleinton
- Bargara

5.2 Stage 2 HV Batteries

- Mundubbera
- Howard
- Rasmussen
- Gladstone South
- Torrington
- Marion South

5.3 Bohle Plains HV Battery

Ownership of the Bohle Plains BESS transitioned to Energy Queensland in March 2025

6 SUPPORTING INFORMATION

Detailed usage data, annual comparisons, and benefit calculations required under the waiver obligations are provided in Appendix A for the 2025 calendar year.

7 DATA SOURCES

Ergon Energy Network collected the primary HV battery usage data from the outage notification system, which is the system used to notify the Retailer of outages in accordance with the contractual requirements. This information is recorded on a per-site bases and uploaded to the Network Operations Data Warehouse. This outage data serves as the foundational dataset for this report.

To ensure accuracy and completeness, the outage records were cross-checked against the Network Operations Control Centre (NOCC) systems for both planned and unplanned outage events.

Additional operational data was available from the Tesla Powerhub platform for the Black River, Kleinton and Bargara BESS sites, providing further validation of usage patterns and system behaviour.

8 METHODOLOGY

A comparison of the uses of each battery—both in terms of volume (MWh) and frequency (hours)—is required to confirm and differentiate between Ergon Energy Network's usage and the spare capacity leased to the Retailer.

Usage information has been compiled from a daily log of the total energy throughput (charge and discharge) for each battery across the reporting period commencing January 2025. The Ergon

Energy Distribution Management system (DMS) records the voltage and current in regular intervals, enabling calculation of total energy usage for each site.

Under the design of the control system and the operating arrangements with the Retailer, Ergon Energy Network assumes control of a battery when it switches the system from the Retailer's Energy Management System (EMS) into a network operating mode. When the control system is in Auto (EMS) mode, the Retailer is in control. Time spent in this mode is recorded as Retailer Hours, and all associated throughput is attributed as Retailer Usage (MWh).

Any other control mode indicates that Ergon Energy Network has taken control of the battery for network purposes, which restricts the Retailer's capacity to during that period. Time spend in this mode is recorded as Network Control Duration, and the associated capacity is attributed as Ergon Energy Network Usage (MWh).

Daily log data from all sites is aggregated to an annual usage basis, consistent with the reporting requirements. While individual battery systems differ, they operate under consistent control modes and logic, allowing for uniform application of this methodology.

The retailer may also be requested to provide dispatch responses through their established control mechanisms.

9 ASSUMPTIONS

To support consistent delineation of usage while the battery is under control of Ergon Energy Network, the following assumptions have been applied:

- When the battery is under Ergon Energy Network control and the total daily throughput is less than 0.5MWh, it is assumed that the site is undergoing maintenance activity rather than providing network support services, and
- When the battery is under Ergon Energy Network control and the total daily throughput is greater than 0.5MWh, it is assumed that the network has derived operational value from the use of the battery's capacity.

10 ESTIMATED INFORMATION

Not applicable. Ergon Energy Network has provided actual information for total numbers.

11 APPENDIX A: COMPLIANCE WITH RING FENCING WAIVER

11.1 11.1 Annual Usage Comparison (volume and frequency)

Table 1. Ergon Energy Network HV Battery Usage, provides an annual comparison of the uses of each battery, detailing both the volume (MWh) and frequency (hours) of usage. This comparison differentiates clearly between capacity used by Ergon Energy Network for network purposes and the spare capacity leased to the Retailer.

Note - while a battery may be under Retailer control for trading purposes, it may simultaneously source or sink reactive power (VARs) as part of its normal operation. These VAR-support activities provide voltage support to the network; however, they are not included in the usage calculations in this report, as they fall outside of the defined reporting requirements

Table 1: Ergon Energy network HV Battery Usage

Site	Site Name	Address	Type	Trading	Retail MWh	Retail Hours	Sum of Capacity used for Network Support (MWh)	Sum of Duration of time used on Network Support (Hours)	Sum of Capacity used for Maintenance (MWh)	Sum of Duration of time used on Maintenance (Hours)
BRBE	Black River	61 Svensson Road, Beach Holm	HV	Dec-22	3552.292022	8442	18	32	0.8472102	286
BBES	Bargara	18 School Lane, Windermere	HV	Feb-23	3011.564828	7957	7	37	0.514991053	766
KBES	Kleinton	20 Meringandan Road, Kleinton	HV	Feb-23	3279.440134	8302	69	78	0.375510193	380
TAES	Tanby	Tanby Post Office Road, Yeppoon	HV	Dec-24	2611.937102	6971	6	18	16.6863707	1771
TBES	Torquay	3-7 Garden Drive, Urangan	HV	Feb-25	1625.354083	5441	22	234	15.60363349	2005
BPES	Bohle Plains	The Ring Road, Bohle Plains	HV	Mar-25	243.5885409	7877	0	0	0.328624741	883
TOES	Torrington	601 Boundary Street, Torrington	HV	Jun-25	1134.508295	4000	905	2684	0.369462422	636
MSES	Marian South	Peachs Rd, Marian	HV	Jul-25	2.066072809	3326	408	634	0	0
HOWA	Howard	Power House Road, Howard,	HV	Sep-25	143.0864197	513	469	1301	1.96613621	706
RAES	Rasmussen	123 Allambie Lane, Townsville	HV	Sep-25	366.2062762	698	179	175	0.076417711	15
GLSO	Gladstone South	60 Gladstone Benaraby Road, Toolooa	HV	Oct-25	179.2007712	533	276	667	0.709807744	672
MTES	Mundubbera	Burnett Highway, Mundubbera	HV	Dec-25	109.8818806	303	72	177	0.257706107	48
Total			HV		16259.12643	54363	2431	6037	37.73587057	8168

12 EXPLANATION OF DIFFERENCES IN BATTERY USAGE

This section explains the differences between Retailer usage and Ergon Energy Network usage across all HV batteries for the reporting period.

More detailed of specific information can be supplied upon request.

12.1 Retailer Usage

When the Retailer is in control of a battery – recorded as Retail Hours – any associated throughput Retailer MWh - is attributed to the Retailer. It is assumed that this usage reflects trading activity undertaken in the wholesale energy market in accordance with the operational agreements in place.

Review of the DMS log data indicates that daily usage remained within the boundaries specified in the agreements. Fluctuations in day-to-day throughput while under Retailer control are expected and reflect operational decisions made by the Retailer, influenced by factors such as:

- Wholesale market pool prices
- Tariff constraints
- Trading strategies
- Expected system conditions

The data confirms that the full battery capacity is not used every day, which is consistent with normal trading behaviour.

12.2 Ergon Energy Network Usage – Network Support

When Ergon Energy Network is controlling of a battery for network operational purposes, or when the Retailer performs a dispatch operation at Ergon's direction, the associated usage is recorded as:

- Sum of Capacity used for Network Support (MWh)
- Sum of Duration of time used on Network Support (Hours)

These periods generally align with times when the network support was required, such as peak load management, voltage regulation, or contingency response.

12.3 Ergon Energy Network Usage - Maintenance

Periods where Ergon Energy Network controls the battery for planned or unplanned maintenance activities are recorded as:

- Sum of Capacity used for Maintenance (MWh)'
- Sum of Duration of time used on Maintenance (Hours)'

These events typically involve minimal throughput and correlate with documented maintenance activities.

13 DATA VALIDATION

To ensure accuracy and robustness of the usage analysis, multiple validation steps were undertaken:

13.1 Verification of DMS Raw Log Data

A second subject matter expert independently reviewed the DMS raw log data log. Spot checks were performed to confirm that the daily energy totals – both import and exports- were aligned and fell within the expected operational ranges.

13.2 Cross-checking with NOCC Work Records

Trends observed in the DMS data were cross-checked against Network Operations Control Centre (NOCC) records. For days where battery sites were taken out of service for planned work:

- periods of reduced or zero throughput were confirmed, and
- recorded control modes aligned with scheduled maintenance events.

This provided independent confirmation of the operational and maintenance timelines.

14 QUANTIFIED BENEFITS

The Bohle Plains Battery Capacity Sharing arrangement applied only for the period March to June 2025, following the transition of the HV battery into Energy Queensland ownership during the 2024/25 financial year.

The total quantified benefit for Bohle Plains across All Services for this partial-year period is \$29,719.

Additional detail on the allocation of this benefit across service categories is provided below:

14.1 Quantified Benefit All Services

- All Services: \$29,719
- Direct Control Services - \$0
- Distribution Services - \$0 (same as the Direct Control Services)
- Other Services - \$29,719

These benefits represent the commercial returns associated with the Retailer's access to, and utilisation of, spare battery capacity during the reporting period.

14.2 Quantified Benefit Direct Control Services

The BESS had no measurable impact on customer reliability or DER, resulting in both the VCR and CECV being assessed as \$0.

The Direct Control Services assessment includes consideration of potential value associated with:

- Value of Customer Reliability (VCR)
- Customer Energy Curtailment Value (CECV)
- Network Deferral benefits
- Voltage Management

For the reporting period:

- Two unplanned outages occurred, but the Bohle Plains provided no reduction in the outage duration
- No outages were recorded on the Bohle feeder or Bohle substation

Conclusion:

- The BESS had no measurable impact on customer reliability, therefore VCR = \$ 0.
- There were no impacts on DER, therefore CECV=\$0

14.3 Quantified Benefit Other Distribution Services

Load Growth and Deferral Assessment

In 2024/25 the BESS has not demonstrated a material reduction of peak demand however there are expected to be longer term benefits.

Future network planning indicates a potential deferral benefit around 2030, but this is dependent on actual load growth trends.

Voltage Support Benefit Assessment

Energy Queensland can operate the network within the allowable voltage planning limits with the BESS out of service. As such, no voltage -related network benefit has been attributed.

The Bohle Plains BESS did not provide material voltage support benefits during the reporting period.

14.4 Quantified Benefit Other Services

The quantified benefits attributed to Other Services comprise:

- Capacity Access Fee \$23,781
- Margin Apportionment Amount \$5,938

Total Other Services Benefit \$29,719

These benefits do not indicate a profit or loss.

15 BOHLE PLAINS PROPOSED BATTERY ALLOCATION

The Retailer Battery Contracts currently in place do not specify an initial proposed allocation or baseline against which actual usage can be compared. As a result, no contractual baseline values exist for assessing variances between expected and actual utilisation.

Accordingly, usage comparisons within this report are based solely on the actual recorded operational data, consistent with the available contractual framework and the requirements of the AER waiver.