AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

Reliability and Emergency Reserve Trader (RERT)

February 2025

Quarterly Report Q4 2024

A report for the National Electricity Market

Important notice

Purpose

AEMO publishes this Reliability and Emergency Reserve Trader (RERT) Quarterly Report under clauses 3.20.6 and 11.128.5 of the National Electricity Rules. This publication is generally based on information available to AEMO as of 1 February 2025 unless otherwise indicated and relates to the period 1 October 2024 to 31 December 2024.

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Version control

Version	Release date	Changes
1	13/02/2025	First issue

Executive summary

Reliability and Emergency Reserve Trader (RERT) is an intervention mechanism under the National Electricity Rules (NER) that allows AEMO to contract for emergency reserves, such as generation or demand response, that are not otherwise available in the market. AEMO uses RERT as one of a number of mechanisms in the event that a critical shortfall in reserves is forecast. RERT may be activated when it is the most suitable mechanism after market options have been exhausted, typically during periods when the supply demand balance is tight.

Interim Reliability Reserves are a category of reserves which AEMO may procure for up to three years to address interim reliability exceedances (expected unserved energy (USE) above the Interim Reliability Measure (IRM) of 0.0006% USE) identified in the AEMO Electricity Statement of Opportunities (ESOO) or updates to the ESOO.

Interim Reliability Reserve (IRR) – New South Wales

85MW of Interim Reliability Reserves (IRR) was contracted in New South Wales during the period from 1 October 2024 to 31 December 2024, covering the period from 1 December 2024 to 31 March 2025.

These IRR were contracted to address the interim reliability exceedances identified in AEMO's 2024 ESOO. The amount contracted was 180MW less than the forecast reliability reserve gap in New South Wales because no other eligible reserves were available for contracting within AEMO's tender requirements.

The total amount payable by AEMO for contracted IRR over the reporting period billing weeks was $1,201,336. The Availability Cost shown in Table 1 provides the cost breakdown per region.

27 November 2024 Short Notice RERT - New South Wales

On 27 November 2024 in New South Wales high temperatures drove high operational demand, which resulted in a forecast Lack of Reserve 2 (LOR2) declared in the NSW and which resulted in an actual LOR2.

In response to the forecast LOR2, AEMO contracted 605MW of short notice reserves. Of this, 184MW of reserves were pre-activated and 65MWh were activated.

AEMO acted to minimise the total cost to consumers by pre-activating and activating the lowest possible cost reserves. The pre-activation costs for reserves, which were ultimately not needed, led to the total cost per megawatt hour (MWh) of reserves exceeding the average value of customer reliability (VCR).

The total cost payable by AEMO for this RERT event was $3.55 million, including intervention costs. The cost per MWh was $56,359, which is greater than the VCR of $49,380 per MWh for New South Wales.

AEMO's process of contracting RERT was consistent with the principles of having the least distortionary effect on the market, while maximising the effectiveness of reserve contracts at the least cost to end use consumers of electricity. At the times of contracting, AEMO had estimated the average amount payable under reserve contracts to be less than the estimated average VCR, see section 4 for more detail.

This report is published under clause 3.20.6(b) of the NER, applied and amended as required by clause 11.128.5 for reserve contracts for IRR, and considers all reserve contracts entered into by AEMO or otherwise in effect during the period 1 October 2024 to 31 December 2024 (reporting period).

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1 RERT activity summary Q4 2024

1.1 Contracting

In Q4 2024, Interim Reliability Reserves (IRR) were contracted to cover the period from 1 December 2024 to 31 March 2025 for the region of New South Wales. These IRR were contracted in accordance with clause 3.20, as modified by clause 11.128, of the National Electricity Rules (NER) to address an interim reliability exceedance (expected unserved energy (USE) above the Interim Reliability Measure (IRM) of 0.0006% USE) forecast for those regions in the summer months of 2024-25.

AEMO's 2024 Electricity Statement of Opportunities (ESOO) identified interim reliability exceedances for the coming summer in the regions of New South Wales, South Australia and Victoria.

In Q4 2024, Short Notice reserves were contracted on 27 November 2024 in New South Wales in response to a forecast Lack of Reserve 2 (LOR 2) condition[1].

1.2 Activation

AEMO intervened in the market by activating RERT on one occasion during the reporting period, on 27 November 2024, due to a forecast LOR2 condition which subsequently developed into an actual LOR2 in New South Wales.

1.3 Costs incurred

The total amount payable by AEMO for RERT during the Q4 2024 billing weeks (29 September to 28 December 2024[2]) was $4,755,281. Table 1 shows a breakdown of the amounts payable in New South Wales including payment type for all contracts activated in Q4 2024.

Additional RERT costs may be incurred in Q2 2025 through the settlement revision process, however revisions are not expected.

Table 1 SN RERT and IRR costs incurred for Q4 2024

NEM region	Availability costs ($)	Pre-activation costs ($)	Activation costs ($)	Intervention costs ($)	Total cost ($)
New South Wales	$1,201,336	$2,545,000	$1,008,945.03	$0[4]	$4,755,281.03

The average availability costs for these contracts in New South Wales is $675 per day per MW of IRR.

[1] LOR 2 signals a tightening of electricity supply reserves. This condition exists when reserve levels are lower than the single largest supply resource in a state. At this level, there is no impact to the power system, but supply could be disrupted if a large incident occurred. Once a forecast LOR 2 is declared, AEMO has the power to direct generators, cancel network outages, or activate the RERT mechanism to improve the supply demand balance.

[2] The 29th, 30th and 31st December 2024 are included in billing week 1 of Q1 2025 so will be considered in the next quarterly report.

[4] Intervention costs are subject to change under clause NER 3.12.1(a).

2 Reserve procurement

2.1 Interim Reliability Reserves

The 2024 Electricity Statement of Opportunities (ESOO)[5] identified a potential risk of unserved energy (USE) in the regions of New South Wales, South Australia and Victoria in FY 2024-25. In each case, the expected USE was forecast to be above the Interim Reliability Measure (IRM) of 0.0006% USE. Factors that influence when and how USE occurs include occurrences of unexpected generator outages and high demand at the same time as low wind and solar generation condition.

No reliability gaps are forecasted for FY 2025-26 in the regions of New South Wales, South Australia and Victoria. Refer to Table 2 below for the forecasted USE gap in GWH and Reliability gap in MW.

Table 2 Expected USE gap and Reliability Reserve gap

NEM region	Fin Year	Expected USE above IRM of 0.0006% (%)	Reliability Reserve Gap (MW)
New South Wales	2024-25	0.00116	265
South Australia	2024-25	0.0012	200
Victoria	2024-25	0.00062	10

The forecast exceedance of the IRM provided a trigger for AEMO to contract IRR to help cover the forecast Reliability Reserve Gap. AEMO's intention when entering into IRR contracts is to ensure availability of the reserves when needed. The Reliability Panel's RERT guidelines provide that AEMO should not rely on Short Notice RERT where it has forecast a shortfall in reliability reserves within 10 weeks to 12 months ahead.

In consultation with relevant State governments, AEMO opened a tender process in September 2024 to seek 265 MW of IRR in New South Wales and 200 MW of IRR in South Australia based on the expected reliability gaps forecast in the ESOO. AEMO did not recommend contracting IRR in Victoria due to the relatively small size of the gap (10 MW) compared to the availability of Short Notice RERT in the region.

AEMO conducted the IRR tender in accordance with the NER, including assessing IRR tenders against evaluation criteria that included operational factors, ability to respond, capacity, reserve period, risk and value for money. The evaluation process included scenario analysis to test whether the expected cost of IRR would be lower than the Value of Customer Reliability over the contract period. The tender process also required potential providers to explain how they currently operated their reserve capability including response to high regional electricity prices.

AEMO also assessed whether contracted IRR could impact on, or interact with, the retailer reliability obligation (RRO) in SA. IRR contracted were not considered to be part of arrangements used by liable entities for the purpose of RRO compliance. Details of how AEMO would allocate costs of IRR to liable entities under the RRO can be found in the Procurer of Last Resort (POLR) Cost Procedures published on the AEMO website[6].

[5] In accordance with clause 3.20.6(d)(2), AEMO's modelling, forecasting and analysis published in the ESOO informed AEMO's decision to enter into the IRR contracts and the amount of reserve procured under those contracts.

[6] https://aemo.com.au/consultations/current-and-closed-consultations/polr-cost-procedures

AEMO was able to secure IRR contracts in New South Wales and South Australia for the summer period of 2024-25. No IRR was contracted beyond March 2025. During the reporting period, AEMO entered into IRR contracts with 4 participants for a total of 85 MW of reserve in New South Wales and with a contract period from 1 December 2024 to 31 March 2025. During the reporting period, AEMO additionally entered into IRR contracts with 3 participants for a total of 17 MW of reserve in South Australia and with a contract period from 1 January 2025 to 28 February 2025, further information on these IRR will be provided in Quarter 1 2025 RERT Report. Refer to Tables 3 and 4 below for details.

Table 3 New South Wales Region Contracted IRR

NEM region	Location of Reserve	Volume of Reserve (MW)	Duration
Enel X Australia Pty Ltd	New South Wales	38	1 Dec 2024 to 31 March 2025
Shell Energy Retail Pty Ltd	New South Wales	7	1 Dec 2024 to 31 March 2025
Progressive Green Pty Ltd T/A Flow Power	New South Wales	10	1 Dec 2024 to 31 March 2025
Visy Industries Australia Pty Ltd	New South Wales	30	1 Dec 2024 to 31 March 2025
Total		85	

Table 4 South Australia Region Contracted IRR

NEM region	Location of Reserve	Volume of Reserve (MW)	Duration
Enel X Australia Pty Ltd	South Australia	8	1 Jan 2025 to 28 Feb 2025
Shell Energy Retail Pty Ltd	South Australia	4	1 Jan 2025 to 28 Feb 2025
Progressive Green Pty Ltd T/A Flow Power	South Australia	5	1 Jan 2025 to 28 Feb 2025
Total		17	

2.2 Panel arrangements

AEMO also maintains a panel of potential RERT providers that are able to offer reserves on short notice in South Australia, Victoria, New South Wales, Queensland, and Tasmania. These short notice reserves are able to contracted on pre-negotiated contract terms.

In consultation with relevant State governments, and as required by the RERT guidelines[7], AEMO entered into panel agreements with potential short notice reserve providers that meet detailed cost, technical, and verification criteria. These short notice RERT resources can have different response lead times, activation conditions, costs, and response capabilities; as a result, not all resources will necessarily be activated for a given shortfall event.

[7] At https://www.aemc.gov.au/sites/default/files/2020-08/Updated%20Amended%20Panel%20RERT%20Guidelines%20-%2018%20August%202020%20-%20Final%20for%20publication_0.pdf.

Under the panel agreements for short notice reserves, there are no fixed costs or availability costs incurred, and payments are made based on pre-activation and/or megawatt hours (MWh) activated. There is no cost to consumers unless this reserve is pre-activated and/or activated[8].

In the reporting period, AEMO had a panel of short notice RERT providers representing an estimated maximum of well over 2000 MW of available reserves across the NEM.

2.3 Short Notice reserves contracted

AEMO must take all reasonable actions to ensure reliability of supply by negotiating and entering contracts to secure the availability of reserves under reserve contracts. In short notice situations, AEMO may enter into a short notice reserve contract in response to a forecast or actual LOR2 or LOR3 condition. The Reserve Level Declaration Guidelines published by AEMO provide guidance for determining the term and quantity associated with a reserve shortfall.

In addition to forecast or actual LOR2 and/or LOR3 conditions, other factors such as projected assessment of system adequacy (PASA) generator availability, may also be considered as inputs into the decision-making process for contracting short notice reserves. Under AEMO's panel arrangements, AEMO contracts with potential providers of short notice reserves at no cost to consumers (unless the reserve is pre activated or activated under a reserve contract). RERT contracting occurs in the context of highly uncertain and complex power system conditions, where actual and projected reserve levels can change at short notice.

On 27 November 2024, AEMO contracted 605MW of short notice reserve in New South Wales in response to forecast LOR2 conditions, which subsequently developed into an actual LOR2 condition. AEMO contracted all available short notice reserves in New South Wales based on the forecast capacity reserve requirement of 820MW. This was contracted in case they would be required to maintain reserves, thereby reducing the potential risk of load shedding in New South Wales. The risk of load shedding existed due to the forecast high demand of over 12,000 MW.

Table 5 below shows short notice reserve contracts entered into by AEMO in Q4 2024. The 'Time' column in Table 5 sets out the initial term (reserve period) of each contract. This is the period that was considered reasonably necessary at the time of contracting to cover the period of the forecast LOR conditions and to cover operational requirements such as forecast uncertainty, pre-activation periods, activation periods, deactivation periods, and minimum activation durations. Note to cover uncertainty or operational constraints of providers, reserve contact times and quantity may exceed or be less than the forecast LOR conditions.

Table 5 Short notice reserve contracted

Provider	Location of reserve	Contracted reserve capacity	Time*	Date	Basis for contract
AGL Energy Services Pty Ltd	New South Wales	3	14:30 to 18:30	27 November 2024	Forecast LOR2
AGL Energy Services Pty Ltd	New South Wales	13	14:30 to 18:30	27 November 2024	Forecast LOR2
BlueScope Steel Limited	New South Wales	20	14:30 to 19:00	27 November 2024	Forecast LOR2

[8] For more information on RERT costs, please refer to the AEMO website at https://aemo.com.au/en/energy-systems/electricity/emergency-management/reliability-and-emergency-reserve-trader-rert.

Provider	Location of reserve	Contracted reserve capacity	Time*	Date	Basis for contract
Blue Scope Steel Limited	New South Wales	10	14:30 to 18:30	27 November 2024	Forecast LOR2
EnergyAustralia Pty Ltd	New South Wales	28	14:30 to 19:00	27 November 2024	Forecast LOR2
Enel X Australia Pty Ltd	New South Wales	48	14:30 to 18:30	27 November 2024	Forecast LOR2
Progressive Green Pty Ltd (Flow Power)	New South Wales	3	14:30 to 19:00	27 November 2024	Forecast LOR2
Progressive Green Pty Ltd (Flow Power)	New South Wales	6	14:30 to 19:00	27 November 2024	Forecast LOR2
Origin Energy Electricity Limited	New South Wales	7	14:30 to 18:30	27 November 2024	Forecast LOR2
Origin Energy Electricity Limited	New South Wales	28	14:30 to 19:00	27 November 2024	Forecast LOR2
Reposit Power Pty Ltd	New South Wales	6	16:00 to 18:00	27 November 2024	Forecast LOR2
Shell Energy Retail Pty Ltd	New South Wales	23	14:30 to 19:00	27 November 2024	Forecast LOR2
Paper Australia Pty Ltd	New South Wales	22	14:30 to 20:30	27 November 2024	Forecast LOR2
Cadia Holdings Pty Ltd	New South Wales	20	14:30 to 19:00	27 November 2024	Forecast LOR2
Visy Industries Australia Pty Ltd	New South Wales	12	14:30 to 19:00	27 November 2024	Forecast LOR2
Visy Industries Australia Pty Ltd	New South Wales	21	14:30 to 19:00	27 November 2024	Forecast LOR2
Endeavour Energy Network Operator Partnership	New South Wales	35	14:30 to 19:00	27 November 2024	Forecast LOR2
Tomago Aluminium Company Pty Ltd	New South Wales	300	15:30 to 16:30	27 November 2024	Forecast LOR2
Total		**605**			

* Note AEMO contracts for short notice reserve at no cost. These contracts may, or may not, be subsequently activated. If activated, the initial contracted times may not align with eventual activation times, because activation times may be refined as conditions evolve.

2.4 AEMO's methodology for contracting RERT

Where market mechanisms are not successful in alleviating a reserve shortfall and the latest time to intervene has been reached, AEMO may intervene in the market by issuing a direction or a clause 4.8.9 instruction, or by exercising the RERT in accordance with NER clauses 3.8.14 and 3.20.

AEMO's approach to determining its choice of supply scarcity mechanism when the need for intervention arises (RERT, direction, or clause 4.8.9 instruction) is detailed in the Supply Scarcity Procedure[9].

[9] The Supply Scarcity Procedure can be found in appendix A of the Short Term Reserve Management procedure numbered SO_OP_3703, at https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/system-operations/power-system-operation/power-system-operating-procedures.

In making this decision, AEMO must use reasonable endeavours to choose the mechanism, or combination of mechanisms, that is effective in addressing the supply scarcity conditions while minimising the associated direct and indirect costs.

AEMO's procedure for the exercise of RERT sets out the methodology which it follows in determining the triggers for RERT, as well as the quantity and term of reserves contracted.

AEMO followed its procedures and the NER (including the RERT principles) in contracting for RERT, including:

- RERT Panel recruitment and IRR procurement.
- Publication of notices.
- Requiring that reserves are not otherwise offered to the market or engaged.
- Determining the term and quantity of reserves to be contracted.

Under NER clause 3.20.2(b), AEMO must have regard to the RERT principles in exercising the RERT. These principles stipulate that AEMO is to take actions that have the least distortionary effect on the operation of the market, that actions taken should aim to maximise the effectiveness of reserve contracts at the least cost to end use consumers of electricity and that the average amount payable by AEMO does not exceed the estimated average Value of Customer Reliability (VCR) per region.

When entering into reserve contracts, AEMO factored these RERT principles into its decision-making:

- To minimise distortionary effects on the operation of the market, AEMO categorises RERT into the following three types based on their pre-activation and activation times:
  - Type 1 – capacity that can be pre-activated and activated in less than 30 minutes. These contracts are pre-activated and activated post-contingency (when an actual LOR3 occurs).
  - Type 2 – capacity where the sum of the pre-activation and activation lead times is greater than 30 minutes, but the activation lead time alone is less than 30 minutes. This means that for this capacity to be activated post-contingency (when an actual LOR3 occurs), it must be pre-activated in advance of the actual LOR3.
  - Type 3 – capacity whereby activation requires more than 30 minutes. This capacity needs to be pre-activated and activated in advance to ensure RERT is delivered on time.
- The use of these categories allows for minimal pre-activation and activation, since Type 1 and 2 categories can be activated post-contingent (during LOR3). This not only minimises impacts on the market, but also maximises the effectiveness of reserve contracts at the least cost to end use consumers of electricity.
- AEMO assesses whether offers by potential short notice RERT providers will exceed VCR, based on the pre-activation and activation of reserves for one hour or more.
- Interim reliability reserves contracted were assessed based on operational factors, ability to respond, capacity, reserve period, risk and value for money. AEMO assessed the total cost of interim reliability reserves under scenarios based on information provided in the ESOO forecasts.

3 Intervention on 27 November 2024

3.1 Decision to intervene

3.1.1 Pre-event conditions

From Monday 25 November 2024, a slow-moving trough began to direct a hot, humid air mass over New South Wales (NSW), with the Bureau of Meteorology (BoM) issuing low intensity to severe heatwave warnings from Monday 25 to Thursday 28 November 2024.

Forecast LOR2 and LOR3 conditions were declared in New South Wales for the evening of 27 November 2024, up to 5 days prior to the day. Forecast LOR conditions were declared and updated several times leading up to the day due to changes in forecast generation availability and demand.

3.2 Assessment of market response and latest time to intervene

On 27 November 2024, AEMO complied with NER clause 3.8.14 and followed its procedures in determining that RERT was the appropriate mechanism to address the conditions of supply scarcity since:

- Direction options had been exhausted as far as reasonably practical; and
- The cost of pre-activating and activating RERT was estimated to be less than that of issuing a clause 4.8.9 instruction for load shedding based on the full pre-activation and activation of reserves forecast to be needed.

At 0730 hrs AEMO issued MN 121021 and MN 121022, which respectively forecast a LOR3 condition and LOR2 condition in the New South Wales region on 27 November 2024. The LOR 3 condition was forecast from 1530 hrs to 1700 hrs. The maximum load (other than interruptible loads) forecast to be interrupted was 84 MW. The LOR2 condition was forecast from 1400 hrs to 1900 hrs. The forecast capacity reserve required was 820MW and the minimum capacity reserve available was 82 MW. Based on the forecast and the minimum activation lead times, AEMO determined the latest time to intervene was 1330 hrs the same day. Each individual reserve provider was activated at the latest time based on their minimum activation lead time (see section 3.3).

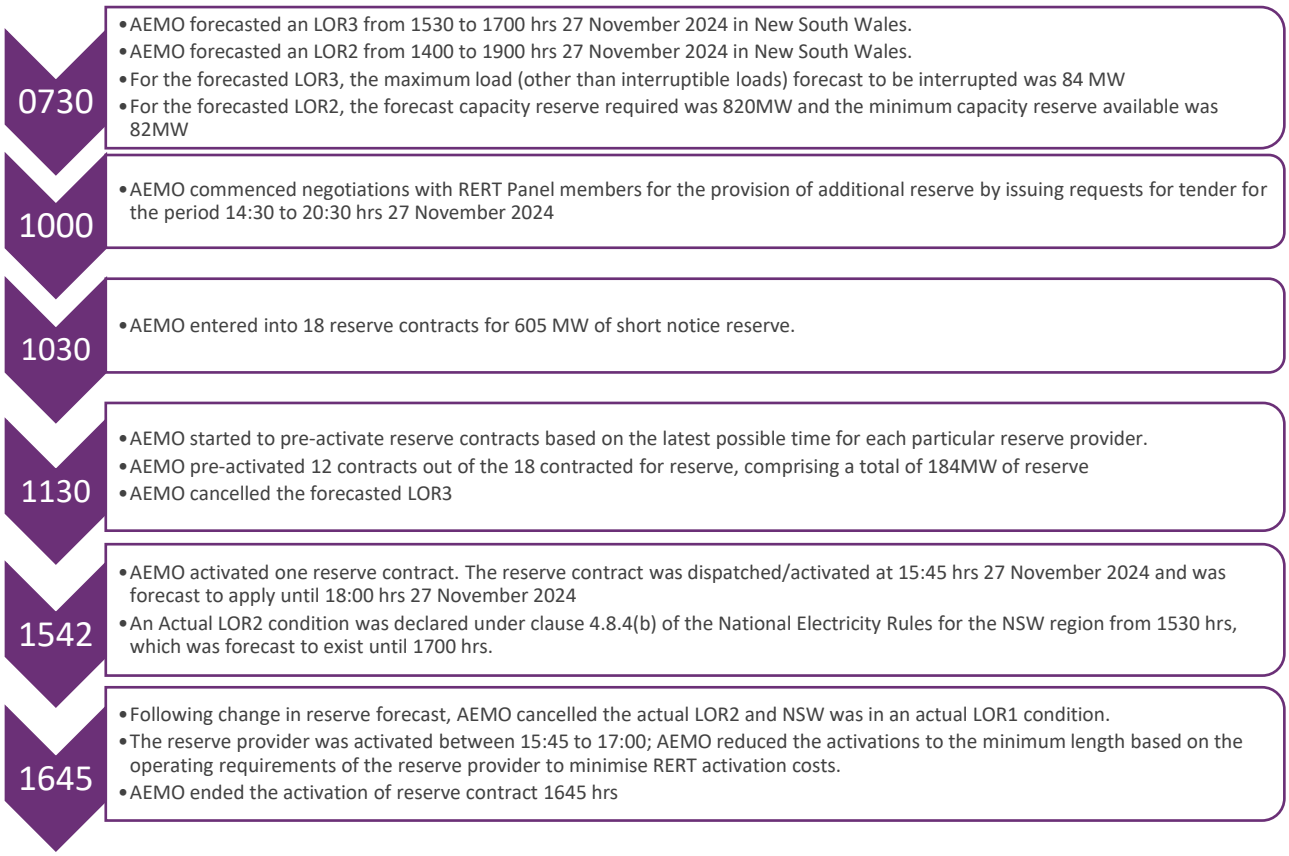
3.3 Intervention event

RERT contracts vary in terms of pre-activation and activation lead times, as well as response times (for example, an industrial load responding to a request to reduce load under RERT may need several hours to prepare plant or undertake a safe shutdown) and minimum continuous run times.

On 27 November 2024, in response to forecast LOR3 and LOR2 conditions in New South Wales, and based on the minimum lead times of RERT providers, AEMO followed the procedure for the exercise of RERT[10] to take the actions summarised in Figure 1. Note that the times used in Figure 1 are illustrative, please refer to market notices for precise timings of events.

[10] See the RERT procedure at https://aemo.com.au/-/media/files/electricity/nem/security_and_reliability/power_system_ops/procedures/so_op_3717-procedure-for-the-exercise-of-the-reliability-and-emergency-reserve-trader.pdf?la=en.

Figure 1 High RERT activation level timeline (AEST)



On 27 November 2024, AEMO instructed the activation of 65MWh of RERT. Where the volume of RERT delivered by a RERT provider is greater than the amount set out in the activation instruction, the payment is only for the volume activated. Table 6 shows a breakdown of RERT instructed per 30-minute period.

Table 6 RERT activation instruction in New South Wales on 27 November 2024

30-minute period ending	RERT activated capacity (MW)
15:45 to 16:00	65
16:00 to 16:30	65
16:30 to 16:45	65

The eventual maximum demand in New South Wales on 27 November 2024 was lower than forecast expectations due to the influence of changing weather, RERT activations, and load reductions.

AEMO proceeded to deactivate all reserve contracts at the earliest possible times. All reserves were de-activated by 1645 hrs, reflecting either the deactivation lead time required by the reserve providers, or the activation instruction end time. At 1647 hrs, AEMO issued MN 121110 to declare the end of RERT dispatch and the AEMO intervention event.

3.4 Intervention pricing

Intervention pricing was applied for this event in accordance with NER 3.9.3(b) for the intervention period from the trading intervals (Tis) ending 1550 hrs to 1645 hrs on 27 November 2024.

Intervention pricing is applied based on the constraints populated into the National Electricity Market Dispatch Engine (NEMDE). These constraints are created by AEMO's RERT scheduling tool based on the times the contracted reserves are scheduled. Intervention pricing on 27 November 2024 reflects 65 MWh of RERT load applied throughout the RERT intervention pricing period.

3.5 Changes in dispatch outcomes

The activation of RERT resulted in changes in dispatch outcomes. The activation of RERT reserves in New South Wales had the effect of decreasing the demand for electricity, which decreased the amount of generation in some regions. This is shown in Table 7, which compares the difference in output between the physical and revised pricing runs. Table 8 compares the variation in total interconnector flows between the physical and revised pricing runs, showing minor changes in interconnector flows during the RERT event.

Table 7 Summary of total energy generation during 27 November 2024 RERT event (MWh)

	NSW	QLD	SA	TAS	VIC
Physical run	10,274	8,217	1,253	671	5,919
Pricing run	10,276	8,325	1,259	671	5,931
Change	-2	-108	-6	0	-12

Table 8 Summary of total interconnector flows during 27 November 2024 RERT event (MWh)

	Terranora	QNI	VIC-NSW	Heywood	Murraylink	Basslink
Physical run[A]	-57	-282	34	-522	153	-478
Pricing run[A]	-57	-391	50	-526	153	-478
Change	1	109	-16	4	0	0

A. Positive numbers are for flows flowing north or west, negative for flows flowing south or east.

3.6 Impact on reliability

For the 27 November 2024 RERT event, there was no manual involuntary load shedding. AEMO activated RERT on the basis of forecast LOR2 which developed into an actual LOR2 condition.

4 Cost of exercising RERT

NER clause 3.20.2(b)(2) requires that when AEMO exercises RERT it should have regard to the RERT principles, including the principle that actions taken should aim to maximise the effectiveness of the reserve contracts at the least cost to end-use consumers of electricity. Accordingly, AEMO enters into reserve contracts based on location, cost, capacity, time to activate, minimum activation time, and the profile of the forecast lack of reserve.

AEMO acts to minimise the total cost to consumers by pre-activating and activating the lowest possible cost reserves. The pre-activation costs for reserves which were subsequently not needed led to the total cost per megawatt hour (MWh) of reserves exceeding the average value of customer reliability (VCR).

The total cost of exercising RERT in Q4 2024 was $4.8 million, which includes pre-activation, activation, and intervention costs.

The cost per MWh has been calculated based on the total cost divided by the MWh delivered for the activation event. The average cost per MWh associated with exercising RERT is $56,358.99 per MWh, which exceeds the average VCR of $49,380 per MWh for New South Wales. This was due to the RERT event on 27 November 2024, where AEMO preactivated 605 MW of reserve but only activated 65MWh (65 MW for 1 hour) due to changes in forecast following the preactivation of reserve. At the time of activation, the expected costs of the 605 MW of contracted reserves was $16,844 per MWh. The actual activation cost per MWh was $16,000, which reflects the rate paid for the reserves delivered, excluding the pre-activation and market compensation costs.

Table 9 shows a breakdown of the costs associated with activating RERT during Q4 2024.

Table 9 Costs associated with activating RERT in Q4 2024

	State	Pre-activation costs ($)	Activation costs ($)	Intervention costs ($)*	Total cost ($)	Cost per megawatt hour ($/MWh)
27 November 2024	NSW	$2,545,000	$1,008,945.03	$0.00[11]	$3,553,945.03	$56,358.99

*Intervention costs represent the compensation paid to Market Participants due to the intervention event (for example, to compensate for energy generation which is displaced by RERT capacity), and to Eligible Persons (Settlement Residue Auction [SRA] holders) due to changes in interconnector flows, and therefore changes in the value of Settlement Residues. Note that these costs are subject to change under clause NER 3.12.1(a). A negative value means affected participants need to pay AEMO.

Table 10 below presents the cost recovery for the activation event, including a breakdown of the cost recovery from Market Customers using electricity during the RERT event (Usage) and cost recovery from Market Customers using electricity in the billing week[12] (Other), as per NEM clause 3.20.6(f)(2). It also includes the IRR availability cost recovered for Q4 of 2024.

All RERT costs were recovered from Market Customers.

[11] Intervention costs are subject to change under clause NER 3.12.1(a).

[12] The billing period is the period ending Saturday 30 November 2024.

Table 10 Breakdown of how costs were allocated to the Market Customers, RERT Q4 2024

Region	Participant Category	Payment type	Recovery period start	Recovery period end	Amount Recovered	Period Total Energy (MWh)	Recovery rate ($/MWh)
NSW	Market Customers	Usage	27/11/2024 16:05	27/11/2024 17:00	$1,008,945.03	10,627.07	$94.94
NSW		Other	24/11/2024 0:05	1/12/2024 00:00	$2,545,000.00	1,402,583.32	$1.81
NSW		Availability	1/10/2024 0:00	28/12/2024 23:30	$1,201,336*	5,453,304.07	$0.22

*The recovery amount is inclusive of Wk48 to Wk52. As 29, 30 and 31 of December 2024 is included in billing week 1 of Q1 2025 so will be considered in the next quarterly report.

No load shedding occurred or was avoided in the reporting period; as such, the estimated cost of avoided load shedding is zero. On 27 November 2024, had the actual LOR2 of 273MW eventuated, then the credible contingency risk would have put at least $13.5 million of customer load at risk.

5 AEMO's intervention process

AEMO's general process for deploying RERT is documented in SO_OP_3717 - Procedure for the Exercise of the Reliability and Emergency Reserve Trader.

AEMO considers that it followed all relevant provisions under NER clause 4.8 and procedures in SO_OP_3717 in the exercising of RERT in Q4 2024, to the extent it was able to do so.

A1. Appendix A1

The table below provide a summary timeline for RERT events in Q4 2024.

Table 11 Timeline of key events on 27 November 2024 New South Wales

Date	Event/comment
27/11/2024 **0727 hrs** **MN 121021**	AEMO ELECTRICITY MARKET NOTICE AEMO declares a Forecast LOR3 condition under clause 4.8.4(b) of the National Electricity Rules for the NSW region for the following Period: [1.] From 1530 hrs 27/11/2024 to 1700 hrs 27/11/2024. The maximum load (other than interruptible loads) forecast to be interrupted is 84 MW at approximately 1530 hrs. AEMO is seeking a market response. AEMO has not yet estimated the latest time at which it would need to intervene through an AEMO intervention event. Manager NEM Real Time Operations
27/11/2024 **0735 hrs** **MN 121022**	AEMO ELECTRICITY MARKET NOTICE The Forecast LOR2 condition in the NSW region advised in AEMO Electricity Market Notice No. 120974 has been updated at 0730 hrs to the following: [1.] From 1400 hrs 27/11/2024 to 1530 hrs 27/11/2024. The forecast capacity reserve requirement is 820 MW. The minimum capacity reserve available is 82 MW. [2.] From 1700 hrs 27/11/2024 to 1900 hrs 27/11/2024. The forecast capacity reserve requirement is 800 MW. The minimum capacity reserve available is 50 MW. AEMO is seeking a market response. AEMO has not yet estimated the latest time at which it would need to intervene through an AEMO intervention event. Manager NEM Real Time Operations
27/11/2024 **0958 hrs** **MN 121038**	AEMO ELECTRICITY MARKET NOTICE. Reliability and Emergency Reserve Trader (RERT) Intention to negotiate for additional reserve - NSW1 Region- 27/11/2024 Refer to AEMO Electricity Market Notice no. 121022. AEMO intends to commence negotiations with RERT Panel members for the provision of additional reserve by issuing requests for tender for the following period of time; 14:30 to 20:30 hrs 27/11/2024 If reserve is required, the period of activation or dispatch will be within this period but may not be for the entire period. AEMO will issue a further advice if reserve is contracted.

Date	Event/comment
	Manager NEM Real Time Operations
27/11/2024 **1035 hrs** **MN 121054**	AEMO ELECTRICITY MARKET NOTICE. AEMO Intervention Event, Reliability and Emergency Reserve Trader (RERT) - NSW1 Region - 27/11/2024 Refer to AEMO Electricity Market Notice no. 121038. AEMO has entered into a reserve contract and may implement a AEMO Intervention Event by dispatching that reserve contract to maintain the power system in a Reliable operating state during the following period of time; 14:30 to 20:30 hrs 27/11/2024 If reserve is required, the period of activation or dispatch will be within this period, but may not be for all the entire period. AEMO will issue a further advice if the reserve contract is dispatched/activated. Manager NEM Real Time Operations
27/11/2024 **1131 hrs** **MN 121056**	AEMO ELECTRICITY MARKET NOTICE The Forecast LOR3 condition in the NSW region advised in AEMO Electricity Market Notice No. 121040 is cancelled at 1130 hrs 27/11/2024 Manager NEM Real Time Operations
27/11/2024 **1542 hrs** **MN 121100**	AEMO ELECTRICITY MARKET NOTICE. AEMO Intervention Event, Reliability and Emergency Reserve Trader (RERT) - NSW1 Region- 27/11/2024 Refer AEMO Electricity Market Notice no. 121054 AEMO has dispatched/activated reserve contract(s) to maintain the power system in a Reliable operating state. The reserve contract(s) was dispatched/activated at 15:45 hrs 27/11/2024 and is forecast to apply until 18:00 hrs 27/11/2024 AEMO has implemented an AEMO intervention event for the duration the reserve contract(s) is dispatched/activated/ To facilitate the RERT process, constraints commencing with the following identifiers may be evident at various times in dispatch, #RT_NSW1 Manager NEM Real Time Operations
27/11/2024 **1547 hrs** **MN 121102**	AEMO ELECTRICITY MARKET NOTICE. AEMO Intervention Event - Intervention price dispatch intervals - dd/mm/yyyy Refer AEMO Electricity Market Notice no. 121100 An AEMO Intervention Event, the dispatch of Reliability and Emergency Reserve Trader (RERT) has been implemented. The AEMO Intervention Event commenced at 15:45 hrs 27/11/2024 and is forecast to apply until 18:00 hrs 27/11/2024 AEMO declares all dispatch intervals during the AEMO Intervention Event to be intervention price dispatch intervals. The AEMO Intervention Event is expected to affect dispatch quantities for intervention pricing purposes from the 15:50 hrs dispatch interval on 27/11/2024 Manager NEM Real Time Operations

Date	Event/comment
27/11/2024 **1548 hrs** **MN 121101**	AEMO ELECTRICITY MARKET NOTICE Actual Lack Of Reserve Level 2 (LOR2) in the NSW region - 27/11/2024 An Actual LOR2 condition has been declared under clause 4.8.4(b) of the National Electricity Rules for the NSW region from 1530 hrs. The Actual LOR2 condition is forecast to exist until 1700 hrs. The capacity reserve required is 685 MW The minimum reserve available is 412 MW AEMO is seeking an immediate market response. Manager NEM Real Time Operations
27/11/2024 **1645 hrs** **MN 121105**	AEMO ELECTRICITY MARKET NOTICE Cancellation of Actual (LOR2) condition in the NSW region - 27/11/2024 The Actual LOR2 Condition in the NSW Region advised in AEMO Electricity Market Notice No.121101 is cancelled at 1645 hrs 27/11/2024. Manager NEM Real Time Operations
27/11/2024 **1647 hrs** **MN 121110**	AEMO ELECTRICITY MARKET NOTICE. End of Reliability and Emergency Reserve Trader (RERT) dispatch for - NSW1 Region - 27/11/2024 and end of AEMO Intervention Event. Refer AEMO Electricity Market Notices 121102 Activation of reserve contract(s) has ended. The reserve contract(s) were activated from 15:45 hrs 27/11/2024 to 16:45 hrs 27/11/2024 The AEMO Intervention Event ended from 16:45 hrs 27/11/2024 Manager NEM Real Time Operations

Glossary

Terms defined in the National Electricity Law and the NER have the same meanings in this report unless otherwise specified below.

Term	Definition
ESOO	Electricity Statement of Opportunities
IRM	Interim reliability measure
LOR1	Lack of Reserve level 1. The threshold for an LOR1 is determined by the larger value of either the FUM or the sum of the two largest credible risks in the region (LCR2).
LOR2	Lack of Reserve level 2. The threshold for an LOR2 is determined by the larger value of either the FUM or the largest credible risk in the region (LCR).
LOR3	Lack of Reserve level 3. The threshold for an LOR3 condition is when the forecast reserve for a region is at or below zero.
NER	National Electricity Rules
RERT	Reliability and Emergency Reserve Trader
IRR	Interim Reliability Reserve
USE	Unserved Energy
VCR	Value of Customer Reliability