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# Reliability and Emergency Reserve Trader (RERT) End of Financial Year 2019-20 Report

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**August 2020**

A report for the National Electricity Market

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# Important notice

## **PURPOSE**

AEMO publishes the Reliability and Emergency Reserve Trader (RERT) End of Financial Year Report under clause 3.20.6 of the National Electricity Rules.

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# 1. RERT Q2 2020 update<sup>1</sup>

## 1.1 Procurement

In Q2 2020 (1 April 2020 to 30 June 2020), AEMO did not enter into any Reliability and Emergency Reserve Trader (RERT) contracts in the National Electricity Market (NEM).

The 137 megawatts (MW) of Long Notice Reserve in Victoria, effective over the summer 2019-20 period, expired on 31 March 2020, and no additional Long Notice Reserve was procured.

No Short/Medium Notice reserve was procured.

## 1.2 Activation

AEMO did not intervene in the market by activating RERT in Q2 2020.

## 1.3 Costs

AEMO did not incur any RERT costs in Q2 2020.

## 1.4 Summer 2020-21 update

AEMO is seeking expressions of interest for Short Notice RERT Panel members in New South Wales (including Australian Capital Territory), Queensland, South Australia, Tasmania, and Victoria, in August 2020.

AEMO seeks expressions of interests from parties who have unscheduled load or generation capacity that can be curtailed or brought online on request from AEMO, this can be large industrial load, a group of aggregated smaller loads or small onsite generators.

Interested parties should refer to the RERT Tendering page<sup>2</sup> of the AEMO website.

AEMO will publish the 2020 Electricity Statement of Opportunities by 31 August, which will include a reliability forecast for summer 2020-21 as well as information on the interim reliability measure<sup>3</sup>.

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<sup>1</sup> Quarterly RERT reporting is only required (under NER clause 3.20.6(c)(2)) whereby a new RERT contract has been entered into or RERT has been activated/ dispatched.

<sup>2</sup> At <https://aemo.com.au/en/energy-systems/electricity/emergency-management/reliability-and-emergency-reserve-trader-rert/rert-tendering>.

<sup>3</sup> For more information about the interim reliability measure, see <http://www.coagenergycouncil.gov.au/reliability-and-security-measures/interim-reliability-measures>.

# 2. RERT 2019-20 end of financial year reporting

This section addresses AEMO's RERT end of financial year reporting requirements for 2019-20, as required under clause 3.20.6 (g) of the National Electricity Rules<sup>4</sup>.

## 2.1 Summary of RERT activity

### 2.1.1 Reserves contracted

AEMO entered into the following RERT contracts during 2019-20:

- Friday 1 November 2019 – AEMO contracted 62 MW of Long Notice Reserve in Victoria, with a term duration of five months. An additional 10 MW was contracted from 1 January 2020, with a term duration of three months.
- Friday 20 December 2019 – AEMO contracted 90 MW of Short Notice Reserve in Victoria, with a term duration of 2.5 hours.
- Monday 30 December 2019 – AEMO contracted 200 MW of Short Notice Reserve in Victoria, with a term duration of eight hours.
- Saturday 4 January 2020 – AEMO contracted 368 MW of Short Notice Reserve in New South Wales, with a term duration of up to 5.5 hours.
- Thursday 23 January 2020 – AEMO contracted 520 MW of Short Notice Reserve in New South Wales, with a term duration of 9.5 hours.
- Thursday 30 January 2020 – AEMO contracted 227 MW of Short Notice Reserve in South Australia, with a term duration of three hours. AEMO also contracted 60 MW of Short Notice Reserve in Victoria, with a term duration of three hours.
- Friday 31 January 2020 – AEMO contracted 235 MW of Short Notice Reserve in Victoria, with a term duration of eight hours. AEMO also contracted 478 MW of Short Notice Reserve in New South Wales, with a term duration of 5.5 hours.

### 2.1.2 Reserves activated

AEMO activated RERT on the following occasions during 2019-20.

#### **Monday 30 December 2019**

AEMO activated RERT in Victoria from 1630 hrs to 2300 hrs, in response to a forecast Lack of Reserve 2 (LOR 2) condition with an estimated shortfall of 346 MW.

AEMO activated four contracts with a total capacity of 92 MW and volume of 283 megawatt hours (MWh). An additional 120 MW of RERT capacity was pre-activated but not activated.

The total cost of exercising RERT<sup>5</sup> on 30 December 2019 was \$3.72 million.

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<sup>4</sup> For further information about RERT contracts, activations and costs, see the AEMO RERT Reporting web page, at <https://aemo.com.au/energy-systems/electricity/emergency-management/reliability-and-emergency-reserve-trader-rert/rert-reporting>.

<sup>5</sup> In this report, the total cost of exercising RERT means pre-activation, activation, and intervention costs.

### **Saturday 4 January 2020**

AEMO activated RERT in New South Wales from 1820 hrs to 2145 hrs, in response to an actual LOR 2 condition with an estimated shortfall of 257 MW.

AEMO activated two contracts with a total capacity of 68 MW and volume of 232 MWh and also pre-activated, but did not activate, one further contract with a capacity of 300 MW.

The total cost of exercising RERT on 4 January 2020 was \$8.36 million.

### **Thursday 23 January 2020**

AEMO activated RERT in New South Wales from 1530 hrs to 1830 hrs, in response to a forecast LOR 2 condition (which developed into an actual LOR 2 condition) with an estimated shortfall of 258 MW.

AEMO activated seven reserve contracts with a total capacity 152 MW and volume of 456 MWh, and also pre-activated, but did not activate, two additional reserve contracts with a total capacity of 302 MW.

The total cost of exercising RERT for 23 January 2020 was \$7.54 million.

### **Friday 31 January 2020**

AEMO activated RERT in Victoria from 1530 hrs to 2130 hrs in response to a forecast LOR 2 condition (which developed into an actual LOR 2 condition) with an estimated shortfall of 360 MW.

AEMO activated nine reserve contracts with a total capacity of 185 MW and volume of 697 MWh and also pre-activated, but did not activate, one additional reserve contract with a capacity 40 MW.

The cost of RERT in Victoria on 31 January was \$7.71 million.

AEMO also activated RERT in New South Wales from 1600 hrs to 2100 hrs in response to an actual LOR 2 condition with an estimated shortfall of 275 MW.

AEMO activated six contracts with a total capacity of 134 MW and volume of 418.5 MWh and also pre-activated, but did not activate, two additional reserve contracts with a total capacity of 304 MW.

The cost of RERT in New South Wales on 31 January 2020 was \$11.15 million.

## **2.2 Cost of RERT in 2019-20**

Table 1 shows a breakdown of the costs associated with exercising RERT in 2019-20.

The total cost for each event includes pre-activation, activation, and intervention costs. Please note that the costs detailed below represent the final settlement statements for RERT costs in 2019-20, all payments will be finalised by the 20 week revision of settlement week 14.

Some RERT costs have been updated since publication of the Q1 and Q2 RERT reports, which include revised availability payments to reflect a final assessment of contractual requirements and intervention cost revisions following final determination.

**Table 1 Costs associated with exercising RERT in 2019-20**

|                  | State | Pre-activation (\$ million) | Activation (\$ million) | Intervention (\$ million) <sup>A</sup> | Total cost (\$ million) | Cost per MWh (\$/MWh) <sup>B</sup> |
|------------------|-------|-----------------------------|-------------------------|--|-------------------------|------------------------------------|
| 30 December 2019 | VIC   | \$0.25                      | \$3.44                  | \$0.03                                 | \$3.72                  | \$14,148.12                        |
| 4 January 2020   | NSW   | \$4.6                       | \$3.75                  | \$0.02                                 | \$8.36                  | \$28,703.86                        |
| 23 January 2020  | NSW   | \$4.61                      | \$2.81                  | \$0.12                                 | \$7.54                  | \$14,821.80                        |
| 31 January 2020  | VIC   | \$0.01                      | \$5.35                  | \$2.35                                 | \$7.71                  | \$13,112.24                        |
| 31 January 2020  | NSW   | \$4.85                      | \$3.53                  | \$2.77                                 | \$11.15                 | \$22,831.52                        |

A. Intervention costs represent 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 (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 NER clause 3.12.1(a).

B. The cost per MWh has been calculated based on the total cost of each event divided by the MWh delivered for each event. RERT MWh delivered is the amount of RERT actually delivered (as opposed to activated) including any over-delivery, noting that RERT providers have not been paid for over-delivery.

Table 2 presents the total costs per region associated with RERT in 2019-20, which includes availability, pre-activation, activation, and intervention costs. The overall total cost of RERT in 2019-20 was \$40.6 million.

**Table 2 Total regional RERT costs in 2019-20**

| State        | Availability (\$ million) | Pre-activation (\$ million) | Activation (\$ million) | Intervention (\$ million) | Total cost (\$ million) | Cost per MWh (\$/MWh) |
|--------------|---------------------------|-----------------------------|-------------------------|---------------------------|-------------------------|-----------------------|
| NSW          | \$0                       | \$14.06                     | \$10.09                 | \$2.91                    | \$27.06                 | \$ 21,004.10          |
| VIC          | \$2.09                    | \$0.26                      | \$8.78                  | \$2.38                    | \$13.51                 | \$ 15,881.59          |
| <b>Total</b> | <b>\$2.09</b>             | <b>\$14.32</b>              | <b>\$18.87</b>          | <b>\$5.29</b>             | <b>\$40.57</b>          | <b>\$ 18,966.89</b>   |

## 2.2.1 Cost per household per activation

Table 3 presents an estimated average cost per household in each state associated with the RERT events in 2019-20, assuming the cost of the RERT events are apportioned by consumption<sup>6</sup>, based on the average residential consumption in each state as a portion of total energy in each state.

**Table 3 Estimated cost per household per activation**

| Event  | Victoria, 30 December 2019 (\$) | New South Wales, 4 January 2020 (\$) | New South Wales, 23 January 2020 (\$) | Victoria, 31 January 2020 (\$) | New South Wales, 31 January 2020 (\$) |
|--|---------------------------------|--------------------------------------|---------------------------------------|--------------------------------|---------------------------------------|
| Estimated cost per household in relevant state (including GST) | \$0.81                          | \$1.01                               | \$0.91                                | \$1.65                         | \$1.35                                |

<sup>6</sup> AEMO recovers RERT costs from *market customers* who are typically retailers and transmission connected large industrial customers. AEMO does not have visibility or control on how retailers pass RERT costs on to their end use customers.

## 2.2.2 Estimated avoided cost of load shedding

Table 4 presents the avoided cost of load shedding associated with the RERT events in 2019-20, estimated as the RERT activation volumes multiplied by the relevant Value of Customer Reliability (VCR)<sup>7</sup>.

**Table 4 Estimated avoided cost of load shedding**

| Event   | Victoria,<br>30 December<br>2019 (\$ million) | New South Wales,<br>4 January 2020<br>(\$ million) | New South Wales,<br>23 January 2020<br>(\$ million) | Victoria,<br>31 January 2020<br>(\$ million) | New South Wales,<br>31 January 2020<br>(\$ million) |
|---|---|--|---|--|---|
| Estimated<br>avoided cost of<br>load shedding<br>based on VCR | \$11.66                                       | \$9.77   | \$19.21   | \$28.72                                      | \$17.63   |

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<sup>7</sup> VCR is used in planning and operations in the NEM as a proxy representing a customer's willingness to pay for the reliable supply of electricity, see <https://aemo.com.au/energy-systems/electricity/national-electricity-market-nem/nem-forecasting-and-planning/scenarios-inputs-assumptions-methodologies-and-guidelines/value-of-customer-reliability>.