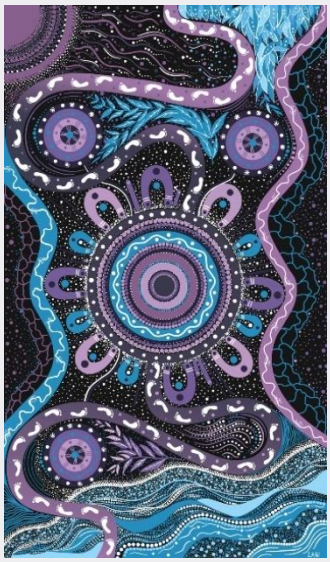
Preliminary Report – Real-Time Market suspension on 8 June 2025

August 2025

A preliminary incident report for the Wholesale Electricity Market under section 3.8 of the Electricity System and Market Rules – information as at 1/8/2025



We acknowledge the Traditional Custodians of the land, seas and waters across Australia. We honour the wisdom of Aboriginal and Torres Strait Islander Elders past and present and embrace future generations.

We acknowledge that, wherever we work, we do so on Aboriginal and Torres Strait Islander lands. We pay respect to the world's oldest continuing culture and First Nations peoples' deep and continuing connection to Country; and hope that our work can benefit both people and Country.

'Journey of unity: AEMO's Reconciliation Path' by Lani Balzan

AEMO Group is proud to have launched its first Reconciliation Action Plan in May 2024. 'Journey of unity: AEMO's Reconciliation Path' was created by Wiradjuri artist Lani Balzan to visually narrate our ongoing journey towards reconciliation - a collaborative endeavour that honours First Nations cultures, fosters mutual understanding, and paves the way for a brighter, more inclusive future.

Important notice

Purpose

AEMO has prepared this preliminary report under clause 3.8.1 of the Electricity System and Market Rules (ESM Rules) as part of its review of the Real-Time Market suspension that occurred on 8 June 2025.

Disclaimer

While AEMO has made reasonable efforts to ensure the quality of the information in this report, investigations may not be complete, and any findings expressed in it may change if further information becomes available and further analysis is conducted. Any views expressed in this report are those of AEMO unless otherwise stated and may be based on information given to AEMO by other persons.

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Executive summary

This report relates to a Wholesale Electricity Market[1] (WEM) Real-Time Market suspension[2] that occurred from Dispatch Interval 2040 hrs Australian Western Standard Time (AWST)[3] to Dispatch Interval 2350 hrs on 8 June 2025.

Clause 3.8.1(b) of the Electricity System and Market Rules (ESM Rules) requires AEMO to investigate incidents that cause significant disruption to the operation of the Central Dispatch Process set out in section 7.6 of the ESM Rules. Clause 3.8.3 requires AEMO to publish a report detailing its findings, including a description of any changes to the ESM Rules or WEM Procedures that AEMO considers necessary to prevent the future occurrence of similar incidents. This is a preliminary version of that report.

AEMO's preliminary investigation has not identified any changes to the ESM Rules or WEM Procedures that AEMO considers necessary to prevent the future occurrence of similar incidents.

This report details how:

- AEMO maintained Power System Security following an information technology (IT) systems failure.
- AEMO implemented the Real-Time Market suspension process.
- AEMO has identified six next steps.

This was the first Real-Time Market suspension since the new WEM commenced in October 2023. The IT systems failure did not involve any cyber security issues, and the supply of electricity to consumers was not interrupted.

AEMO welcomes feedback

AEMO has prepared a preliminary report on this incident because it is mindful that this event was of significance to stakeholders. AEMO welcomes feedback in relation to this report at the upcoming Western Australian Energy Consultative Forum (WAECF) on 7 August 2025, or via email to WAElectricityforum@aemo.com.au. A final report will be published at the conclusion of the incident investigation.

IT systems failure and power system impact

An IT systems failure resulted in missed Market Schedules

The Real-Time Market suspension was a result of an IT systems failure which resulted in an inability of the WEM dispatch engine (WEMDE) to create Market Schedules for Dispatch Interval 1840 hrs and from Dispatch Interval 1900 hrs to Dispatch Interval 2145 hrs inclusive. Market Participants were unable to access market information or submit updated Real-Time Market Submissions. The dispatch signals sent by AEMO's energy management system (EMS) were no longer automatically updated by WEMDE to take into consideration the latest conditions on the power system. AEMO's automatic generator

[1] Capitalised terms in this report have the meanings given in the Electricity System and Market Rules (ESM Rules) unless the context otherwise requires.

[2] See section 7.11D of the ESM Rules.

[3] All times referred to in this report are in AWST.

control (AGC) continued to regulate the output of generators to manage frequency, but this left depleted headroom to manage contingencies. See next step 3 and 4 for mitigations associated with this IT systems failure.

AEMO intervened to maintain Power System Security

AEMO began manually updating energy Dispatch Targets to align with the 5-minute resolution from the Dispatch Interval 1855 hrs Dispatch Schedule. As AEMO was manually dispatching the power system, AEMO determined that online reserves[4] were required to ensure it could maintain Power System Security. Subsequently, AEMO was required to manually intervene in the dispatch process to ensure the South West Interconnected System (SWIS) remained in a Secure Operating State. The actions taken by AEMO included issuing directions to delay the de-commitment of Pinjar GT4 by approximately one hour, and constraining Pinjar GT11 to a minimum of 25 MW. Due to human error, AEMO did not issue a Market Advisory to advise Market Participants of its direction to Pinjar GT4. AEMO will share this lesson learned in next step 5 to reduce the likelihood of recurrence.

IT systems were restored at 2149 hrs

Investigations into the cause of the IT systems failure commenced immediately, working towards restoring service. The cause of the IT systems failure was resolved at approximately 2149 hrs and WEMDE produced the Dispatch Interval 2150 hrs Market Schedules.

The power system remained in a healthy state throughout the incident

AEMO completed 99 actions while manually dispatching the power system between 1939 hrs and 2221 hrs. Power System Security was maintained throughout the incident due to these actions.

AEMO implemented the Real-Time Market suspension process

AEMO suspended the Real-Time Market at 2040 hrs

AEMO first identified the IT systems failure at 1840 hrs. AEMO determined that the actions undertaken to maintain Power System Security and Power System Reliability were significantly impacting market settlement and suspended the Real-Time Market from 2040 hrs.

AEMO resumed the Real-Time Market at 2350 hrs

Following resolution of the IT systems failure, AEMO determined it was practical to resume the Real-Time Market.[5] At 2205 hrs, AEMO issued Market Advisory 211569 advising that the Real-Time Market would resume from 2350 hrs. This provided 105 minutes notice. However, clause 7.11D.3(a)(i) of the ESM Rules requires AEMO to provide a notice period of at least two hours. This situation occurred as AEMO's internal procedure did not specifically document this rule requirement. Following the event, AEMO has updated its internal procedure, and recommended next step 6.

AEMO has set the final Market Clearing Prices

AEMO has set the final Market Clearing Prices:

- For missed Dispatch Intervals prior to the Real-Time Market suspension, using replacement Market Schedules determined in accordance with clauses 7.11B.1A and 7.11B.1B of the ESM Rules. Dispatch Interval 1840 hrs Market

[4] Online reserves refer to generation capacity that is synchronised to the grid, but operating at less than full capacity, allowing it to quickly change its output.

[5] The factors that AEMO took into account when deciding to resume the Real-Time Market are set out in Section 4.2 of this report.

Clearing Prices were set using the Dispatch Interval 1835 hrs Dispatch Schedules, and Dispatch Interval 1900 hrs to Dispatch Interval 2035 hrs Market Clearing Prices were set using the Dispatch Interval 1855 hrs Dispatch Schedules.

- For Dispatch Intervals during the Real-Time Market suspension, by averaging equivalent intervals in the four most recent completed Trading Weeks, in accordance with clauses 7.11E.3 and 7.11E.5 of the ESM Rules.

During the suspension, the final Market Clearing Prices for Energy were on average within $1/MWh of the Pre-Dispatch price forecasts. Contingency and Regulation prices were on average higher in all markets. Contingency Raise prices were the most impacted and were on average $33/MW/h higher than the Pre-Dispatch price forecasts.

The Economic Regulation Authority will assess the net settlement amounts received by Market Participants during the suspension period as required by clause 7.12.1 of the ESM Rules.

AEMO has identified six next steps

In response to this incident, AEMO has identified the following next steps:

1. AEMO will publish a final report on this incident, which is expected to be completed by Q1 2026. The report is expected to provide an update on these next steps.
2. AEMO plans to present on this incident at the WAECF on 7 August 2025.
3. AEMO is conducting a full review of the IT systems involved and will progress the identified rectification activities. The rectification activities under consideration also include options to triage, manage and coordinate response to IT service availability degradations or outages faster to help minimise market consequences.
4. AEMO will share the findings of this review internally so that its other control rooms and markets learn from this incident and consider proactive risk mitigation measures, as relevant.
5. AEMO will share the lessons learned from this incident at a future WEM real time operations training session and consider using the incident as a basis for a scenario training exercise.
6. AEMO recommends that Energy Policy WA (EPWA) undertake a consultation with industry stakeholders on whether the two-hour market resumption notice period defined in clause 7.11D.3(a)(i) of the ESM Rules should be retained, increased, or decreased.

Contents

1 Incident overview

1.1 This preliminary report is the first step in reporting under clause 3.8.3 of the ESM rules

This report relates to a WEM Real-Time Market suspension that occurred from Dispatch Interval 2040 hrs to Dispatch Interval 2350 hrs on 8 June 2025. This was the first Real-Time Market suspension since the new WEM commenced in October 2023.

Clause 3.8.1(b) of the ESM Rules requires AEMO to investigate incidents that cause significant disruption to the operation of the Central Dispatch Process set out in section 7.6 of the ESM Rules. Clause 3.8.3 requires AEMO to publish a report detailing its findings, including a description of any changes to the ESM Rules or WEM Procedures that AEMO considers necessary to prevent the future occurrence of similar incidents. This is a preliminary version of that report.

AEMO welcomes feedback

AEMO has prepared a preliminary report on this incident because it is mindful that this event was of significance to stakeholders. AEMO welcomes feedback in relation to this report at the upcoming WAECF, or via email to WAElectricityforum@aemo.com.au. A final report will be published at the conclusion of the incident investigation.

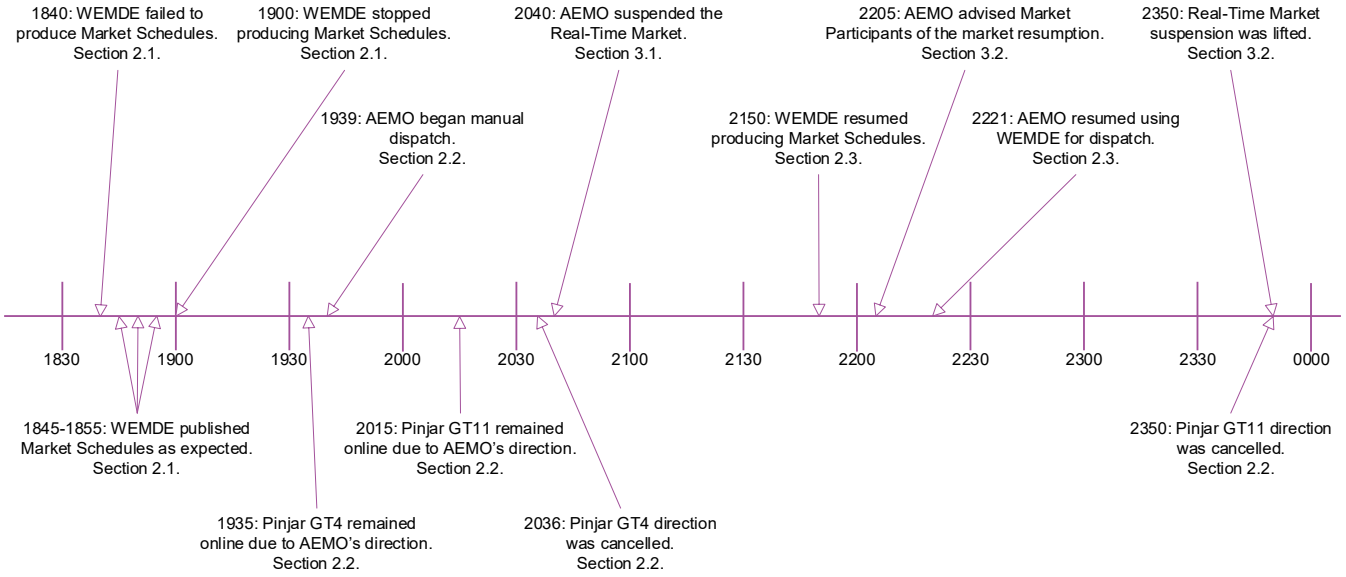
1.2 Conditions were ideal prior to the incident

The incident occurred on a Sunday evening when there was clear weather and stable demand. There were sufficient reserves and there were no abnormal threats to Power System Security. The power system was in a Satisfactory Operating State, Secure Operating State and Reliable Operating State.

1.3 Timeline of key events

Figure 1 outlines the timeline of key events which formed part of this Real-Time Market suspension.

Figure 1 Sequence of events



1.4 Market Advisories related to this incident

Table 1 provides a list of Market Advisories issued and withdrawn by AEMO in relation to this incident.

Table 1 Market Advisories

Time (hrs)	Event
8 June 2025	
1933	• AEMO issued Market Advisory 211567 to advise Market Participants of an ongoing unplanned outage of WEMDE, resulting in missed Dispatch Schedules.
2043	• AEMO issued Market Advisory 211568 to advise Market Participants that the Real-Time Market had been suspended from 2040 hrs.
2205	• AEMO withdrew Market Advisory 211568 with an end time of 2200 hrs, as the advice was superseded by Market Advisory 211569. • AEMO issued Market Advisory 211569 to advise Market Participants that WEMDE had been restored, and that the Real-Time Market would resume from 2350 hrs.
2238	• AEMO withdrew Market Advisory 211567 with an end time of 2230 hrs, as AEMO had resumed using WEMDE to dispatch the power system from 2221 hrs.
2330	• AEMO issued Market Advisory 211570 to advise Market Participants that AEMO had constrained Pinjar GT11 to a minimum of 25 MW between 2015 hrs and 2350 hrs to maintain Power System Security and Power System Reliability.
2359	• AEMO withdrew Market Advisory 211569 with an end time of 2330 hrs[A], as the Real-Time Market had resumed at 2350 hrs.
10 June 2025	
1100	• AEMO issued Market Advisory 211572 to notify Market Participants of a delay to the provision of settlement and monitoring data, provided under clauses 7.13.1BA and 7.13.1CB of the ESM Rules, for Dispatch Interval 1840 hrs and Dispatch Interval 1900 hrs to Dispatch Interval 2345 hrs on 8 June 2025.
13 June 2025	
1220	• AEMO withdrew Market Advisory 211572 with an end time of 1200 hrs. As per the Market Advisory, this withdrawal advised Market Participants that settlement and monitor data for Dispatch Interval 1840 hrs and Dispatch Interval 1900 hrs to Dispatch Interval 2345 hrs on 8 June 2025 had been provided.

A. The Market Advisory details had the correct Real-Time Market resumption time of 2350 hrs.

2 IT systems failure and power system impact

This section describes how the IT systems failure occurred, impacted the operation of the power system and was resolved. Market impacts, including the decision to suspend and resume the market, are discussed in Section 3.

2.1 An IT systems failure resulted in missed Market Schedules

Market Schedules were not produced at 1840 hrs and no longer produced from 1900 hrs onwards.

At 1840 hrs on 8 June 2025, AEMO began to experience authentication issues, which resulted in the WEMDE's failure to produce Market Schedules. The first failure occurred at 1840 hrs when the Dispatch Interval 1840 hrs Market Schedules were missed. WEMDE successfully published Market Schedules for Dispatch Interval 1845 hrs to Dispatch Interval 1855 hrs. From 1900 hrs, WEMDE was no longer publishing Market Schedules until the IT systems issue was resolved.

Market Participants were unable to access market systems or update submissions.

During the IT systems failure, Market Participants were unable to access AEMO's market systems. This meant that, while WEMDE was unable to produce any new Market Schedules, Market Participants were also unable to view forecast prices or Dispatch Schedules generated prior to the IT systems failure. Participants were also unable to view existing, or submit updated, Real-Time Market Submissions. Generators were still receiving dispatch signals from AEMO's EMS.

Dispatch signals were no longer automatically updating and AGC used the regulation headroom to keep the power system in balance.

As WEMDE was no longer producing Market Schedules, the dispatch signals sent by AEMO's EMS were no longer automatically updated by WEMDE to take into consideration the latest conditions on the power system. These signals were also not automatically updated to align with the forecasted Dispatch Schedule, and subsequently, remained at the Dispatch Interval 1855 hrs target unless manually changed. AEMO's AGC continued to regulate the output of Essential System Service (regulation) providers to compensate for changes in demand and semi-scheduled wind output. This response ensured frequency remained within limits but also depleted the headroom available to manage contingency events. Subsequently, AEMO determined that it was required to manually dispatch the power system to ensure it remained in a Secure Operating State.

AEMO advised Market Participants of the unplanned outage.

At 2015 hrs, AEMO issued Market Advisory 211567 to advise Market Participants of an ongoing unplanned outage of WEMDE, resulting in missed Dispatch Schedules.

2.2 AEMO intervened to maintain Power System Security

AEMO manually dispatched the power system using the Dispatch Interval 1855 hrs Dispatch Schedule.

A 5-minute resolution Dispatch Schedule was available for the two hours following Dispatch Interval 1855 hrs, and thereafter the 30-minute resolution Pre-Dispatch Schedule from Dispatch Interval 1830 hrs was available. At 1939 hrs,

AEMO's power system controllers began manually dispatching the power system in accordance with its internal procedures. This included updating energy Dispatch Targets to dispatch Market Participants as per the Dispatch Interval 1855 hrs Dispatch Schedule and Dispatch Interval 1830 hrs Pre-Dispatch Schedule. As Essential System Services (regulation) quantities had responded to the changes in demand and semi-scheduled output, AEMO enabled additional quantities of Essential System Services for short periods around energy Dispatch Target changes to avoid triggering a frequency event. AEMO dispatched additional Regulation Raise when it reduced an energy Dispatch Target and dispatched additional Regulation Lower when it increased an energy Dispatch Target.

AEMO determined that online reserves were required to ensure it could maintain Power System Security.

Under normal conditions, WEMDE automatically updates Dispatch Targets to compensate for changes in demand and semi-scheduled unit output. As AEMO was completing manual dispatch, it was important to allow time for power system controllers to manually respond to changes in power system operating conditions. Subsequently, AEMO determined that online reserves were required to be maintained to ensure AEMO could continue to manually dispatch the power system in a Secure Operating State by avoiding delays in response to AEMO's dispatch instructions.

AEMO intervened and directed Pinjar GT4 and Pinjar GT11 to delay their de-commitment.

Pinjar GT4 and Pinjar GT11 were forecast to de-commit at 1935 hrs and 2015 hrs in the Dispatch Interval 1855 hrs Dispatch Schedule. However, AEMO determined that its online reserve was required and directed the units to remain online. Pinjar GT4 was directed to remain in service until 2036 hrs, and Pinjar GT11 was directed to remain in service until the end of the market suspension at 2350 hrs.

AEMO missed a Market Advisory and plans to share the lessons learned at a future training session.

As soon as practicable, at 2330 hrs, AEMO issued Market Advisory 211570 to advise Market Participants that it had constrained Pinjar GT11 to a minimum of 25 MW between 2015 hrs and 2350 hrs to maintain Power System Security and Power System Reliability. AEMO did not issue a Market Advisory to advise Market Participants of its direction to Pinjar GT4. Post-incident review has determined this was missed due to human error during the restoration of WEMDE and associated systems. This lesson learned will be shared at a future WEM real-time operations training session.

2.3 IT systems were restored at 2149 hrs

After identifying the cause of the IT systems failure, AEMO immediately worked to restore service. The cause of the IT systems failure was resolved at approximately 2149 hrs, and WEMDE produced the Dispatch Interval 2150 hrs Market Schedules. AEMO will complete further steps to mitigate the risk and/or impact of occurrence of any similar incident (see Section 4).

WEMDE resumed dispatching the power system from 2221 hrs.

Following rectification of the IT systems issue, as Pinjar GT11 was still required to remain online, AEMO constrained Pinjar GT11 to a minimum of 25 MW. At 2221 hrs, AEMO stopped manual dispatch, and resumed using WEMDE to dispatch the power system.

2.4 The power system remained in a healthy state throughout the incident

There were no Contingency Events during the WEMDE outage. AEMO completed 99 actions while manually dispatching the power system between 1939 hrs and 2221 hrs. As a result of these actions, the SWIS remained in a Secure Operating State, a Reliable Operating State and a Satisfactory Operating State throughout the incident, and, as shown in **Figure 2**, frequency remained within the Normal Operating Frequency Band (49.8 Hz to 50.2 Hz).

Figure 2 Frequency on 8 June 2025

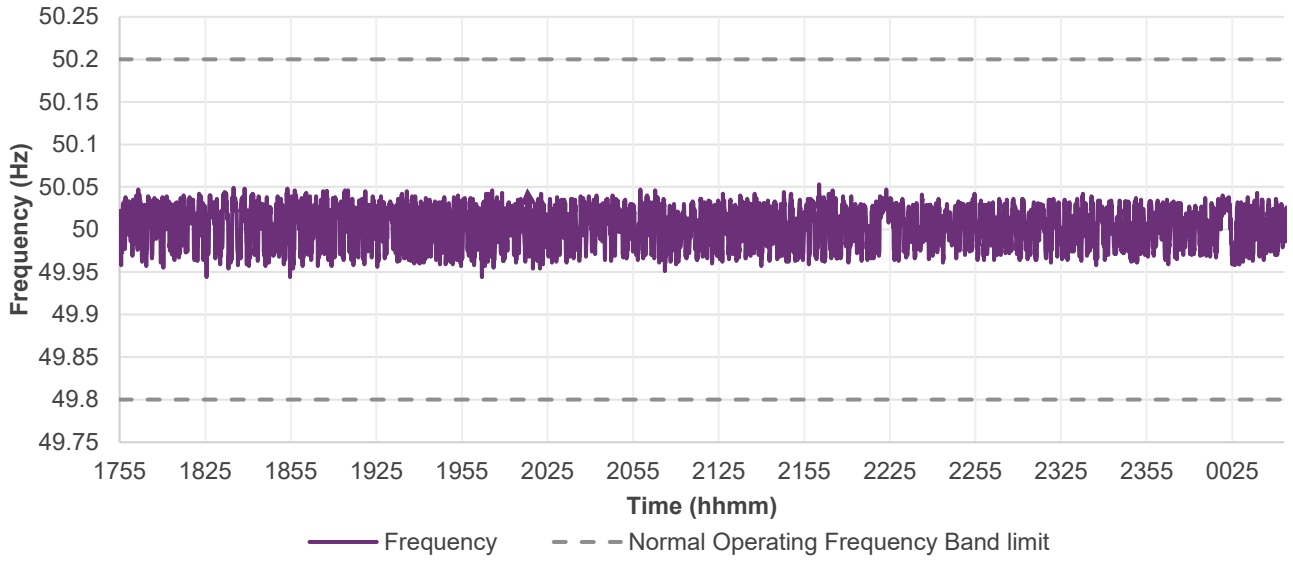


Figure 3 shows that Operational Demand remained close to forecasts throughout the incident.

Figure 3 Operational Demand compared to Operational Demand Estimates on 8 June 2025

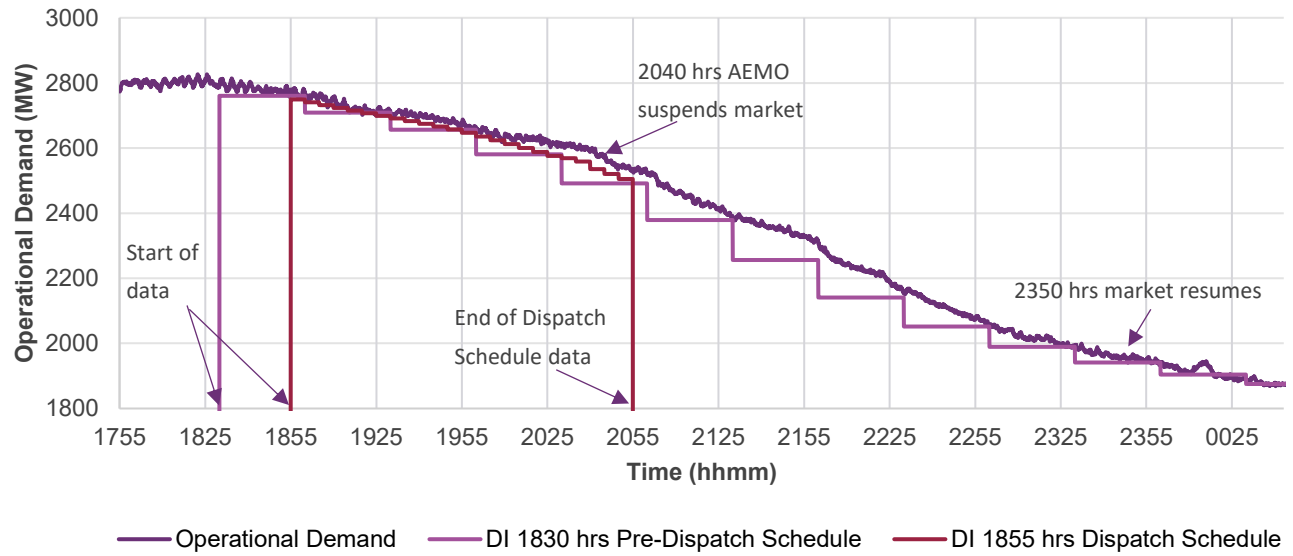
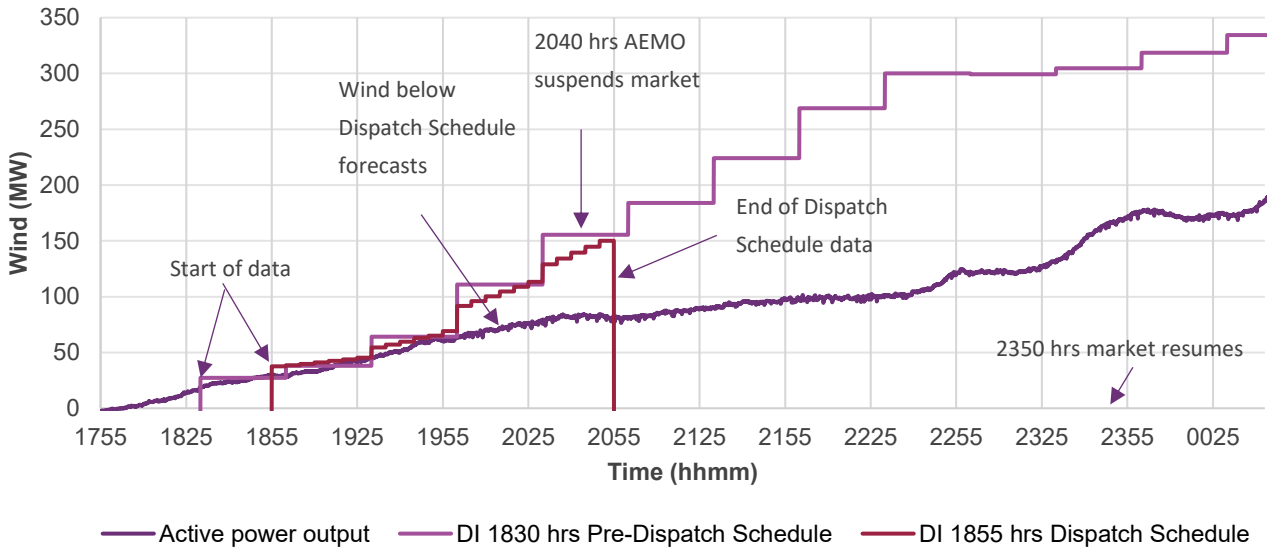


Figure 4 shows that semi-scheduled wind active power output was below forecast. AEMO compensated for forecast errors with its dispatch targets to the Pinjar GT4 and Pinjar GT11.

Figure 4 Total wind active power output compared with Dispatch Forecasts on 8 June 2025



3 AEMO implemented the Real-Time Market suspension process

This section details describes how the WEM Procedure: Real-Time Market Suspension[6] and the relevant clauses of the ESM Rules were applied in suspending the Real-Time Market, resuming the Real-Time Market, and setting the price.

3.1 AEMO suspended the Real-Time Market in accordance with the processes and procedures

Clauses 7.11D.1 and 7.11D.2 of the ESM Rules and paragraphs 2 and 3 of the WEM Procedure: Real-Time Market Suspension document the actions which are required to be taken in a Real-Time Market suspension.

AEMO suspended the Real-Time Market due to a failure of its IT systems.

Due to the failure of AEMO's IT systems, initially for Dispatch Interval 1840 hrs and an ongoing failure from Dispatch Interval 1900 hrs, AEMO was required to manually intervene to ensure the SWIS remained in a Secure Operating State. AEMO determined that the actions undertaken to maintain Power System Security and Power System Reliability were significantly impacting market settlement in accordance with the provisions of the ESM Rules. The IT systems failure root cause was not identified within 2 hours of AEMO's identification of the initial failure at 1840 hrs. Subsequently, **AEMO suspended the Real-Time Market from 2040 hrs**. At 2043 hrs, AEMO issued Market Advisory 211568 to advise Market Participants that AEMO:

- Had suspended the Real-Time Market from 2040 hrs on 8 June 2025.
- Made the decision as an IT systems issue was impacting the ability for WEMDE to produce Market Schedules.
- Had commenced using the contingency dispatch schedule to issue directions to Market Participants.
- May deviate from the contingency dispatch schedule if required to maintain Power System Security and Power System Reliability.

3.2 AEMO followed most processes and procedures when resuming the market

Clause 7.11D.3 of the ESM Rules and paragraph 5.1 of the WEM Procedure: Real-Time Market Suspension document the actions which are required to be taken in resumption of the Real-Time Market.

The cause of the IT systems failure was resolved at approximately 2150 hrs, and WEMDE resumed producing Market Schedules from Dispatch Interval 2150 hrs. AEMO determined that it was practicable to resume the operation of the Real-Time Market as it was satisfied:

[6] See https://aemo.com.au/-/media/files/electricity/wem/procedures/2024/aemo-wemp-real-time-market-suspension.pdf.

- None of the conditions under clause 7.11D.1 of the ESM Rules were applicable.
- AEMO's IT systems were stable and online.
- The Dispatch Algorithm in the Central Dispatch Process was operational and could be resumed.
- AEMO considered that there was minimal possibility of issues that may lead to a subsequent suspension of the Real-Time Market within the next 24 hours.

The notice given by AEMO to Market Participants about the resumption was less than the minimum requirement[7].

AEMO resumed the Real-Time Market at 2350 hrs on 8 June 2025. At 2205 hrs, AEMO issued Market Advisory 211569 to advise Market Participants that the Real-Time Market would resume from 2350 hrs on 8 June 2025. This provided Market Participants with 105 minutes' notice regarding the resumption of the Real-Time Market, less than is required under the ESM Rules. Post-incident review has determined that this occurred as AEMO's internal procedure, which was followed by its power system controllers on the day, did not specifically document the required notice period. Following the incident, AEMO has updated its internal procedure to specifically document the minimum market resumption notice period.

AEMO recommends that EPWA consult on the market resumption notice period.

AEMO understands that the intent of the two-hour market resumption notice period is to give Market Participants sufficient time to prepare for the resumption of the normal market processes. This incident provides an opportunity to gather feedback on the appropriateness of this timeframe. AEMO recommends that EPWA undertake a consultation with industry stakeholders on whether the two-hour market resumption notice period defined in clause 7.11D.3(a)(i) of the ESM Rules should be retained, increased, or decreased.

3.3 AEMO has set the final Market Clearing Prices

Prices were set in accordance with the ESM Rules.

For the period of the WEMDE outage, final Market Clearing Prices were set in accordance with clauses 7.11B.1A and 7.11B.1B of the ESM Rules for Dispatch Intervals prior to the Real-Time Market suspension (Dispatch Interval 1840 hrs, and Dispatch Interval 1900 hrs to Dispatch Interval 2035 hrs), and in accordance with clauses 7.11E.3 and 7.11E.5 of the ESM Rules during the Real-Time Market suspension (Dispatch Interval 2040 hrs to Dispatch Interval 2345 hrs).

Prior to the suspension, prices were set using replacement Market Schedules.

As per clause 7.11B.1B of the ESM Rules, Dispatch Interval 1840 hrs Market Clearing Prices were set using the Dispatch Interval 1835 hrs Dispatch Schedules, and Dispatch Interval 1900 hrs to Dispatch Interval 2035 hrs Market Clearing Prices were set using the Dispatch Interval 1855 hrs Dispatch Schedules.

During the suspension, prices were set by averaging equivalent intervals from the past four Trading Weeks.

During the Real-Time Market suspension, the final Market Clearing Prices for each Market Service were set to the average final Market Clearing Price for that Market Service in the equivalent intervals in the four most recent completed Trading Weeks, with a minimum administered pricing of $0.

[7] Clause 7.11D.3 of the ESM Rules requires AEMO to provide a notice period of at least two hours.

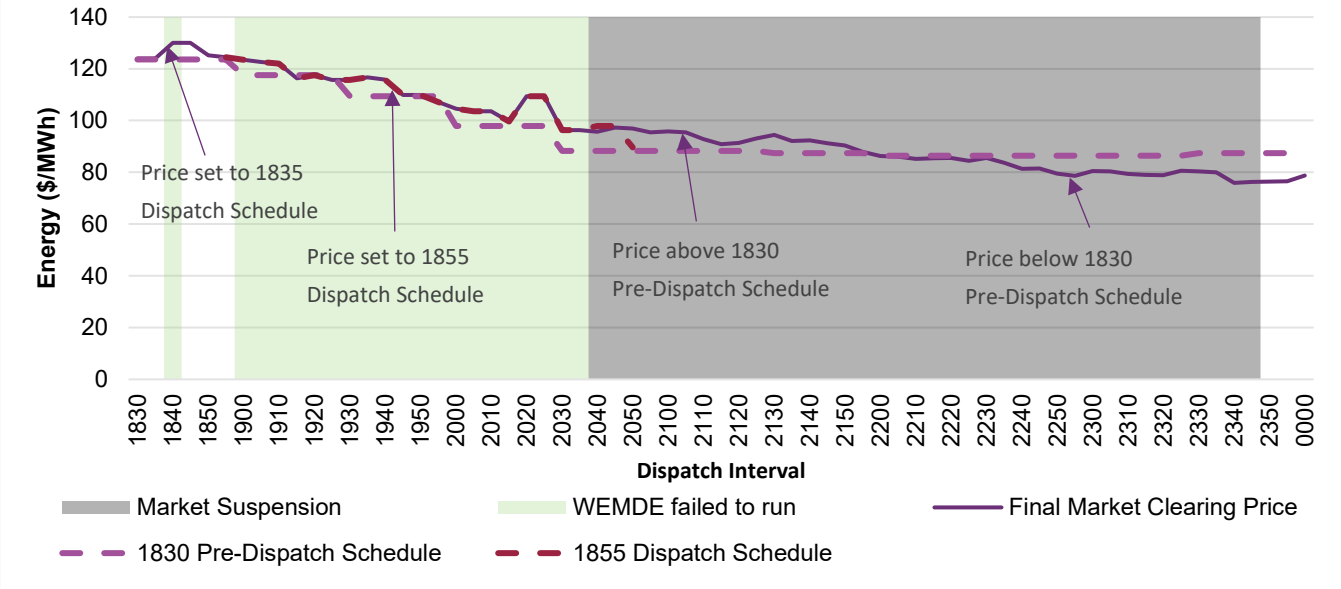
AEMO provided Market Participants with the required notice about the delay to pricing publication.

At 1100 hrs on 10 June 2025, AEMO issued Market Advisory 211572 to notify Market Participants of a delay in publication of the relevant administered price[8]. At 1111 hrs on 13 June 2025, AEMO published the administered pricing from the Real-Time Market suspension.

During the suspension, Energy prices were similar to forecasts, and Essential System Service prices were up to $39.05/MW/h higher than Pre-Dispatch forecasts.

As shown in **Figure 5**, during the market suspension, the final Market Clearing Prices for Energy were initially above the Dispatch Interval 1830 hrs Pre-Dispatch Schedule price forecasts before reducing to below the price forecasts. The average price for the market suspension period was within $1/MWh of the Dispatch Interval 1830 hrs Pre-Dispatch Schedule price forecasts.

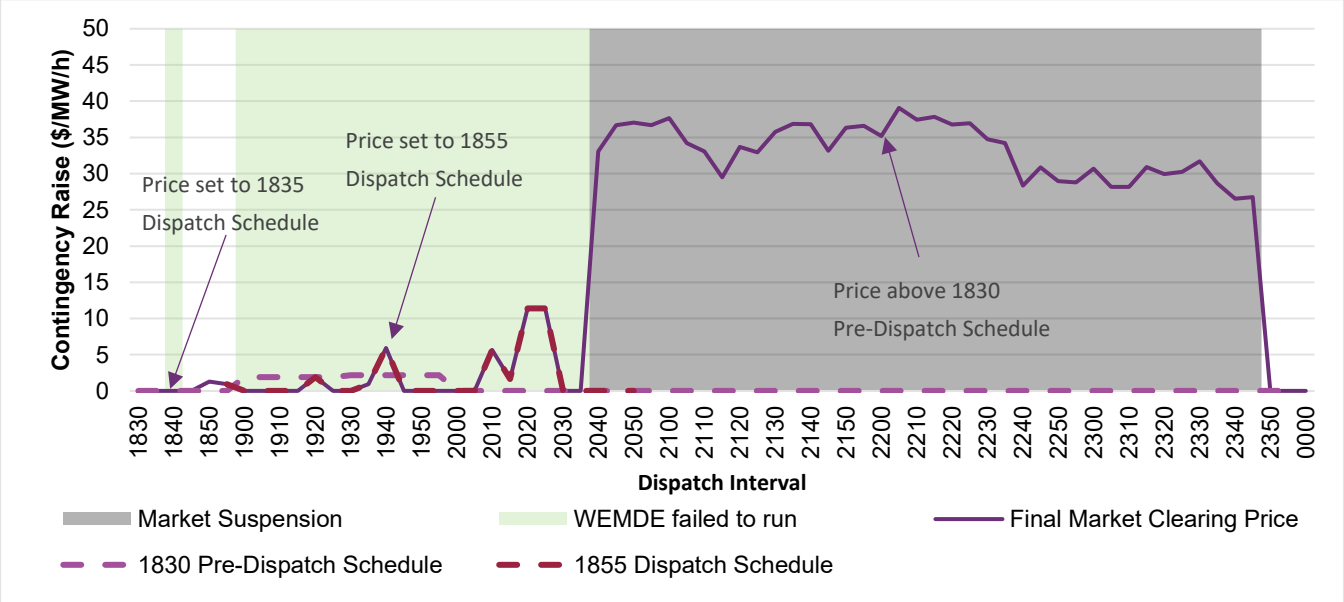
Figure 5 Energy final Market Clearing Prices



As shown in **Figure 6**, during the market suspension, final Market Clearing Prices for Contingency Raise were on average $33/MW/h higher than the Dispatch Interval 1830 hrs Pre-Dispatch Schedule price forecast. The largest difference was $39.05/MW/h, which occurred at Dispatch Interval 2205 hrs.

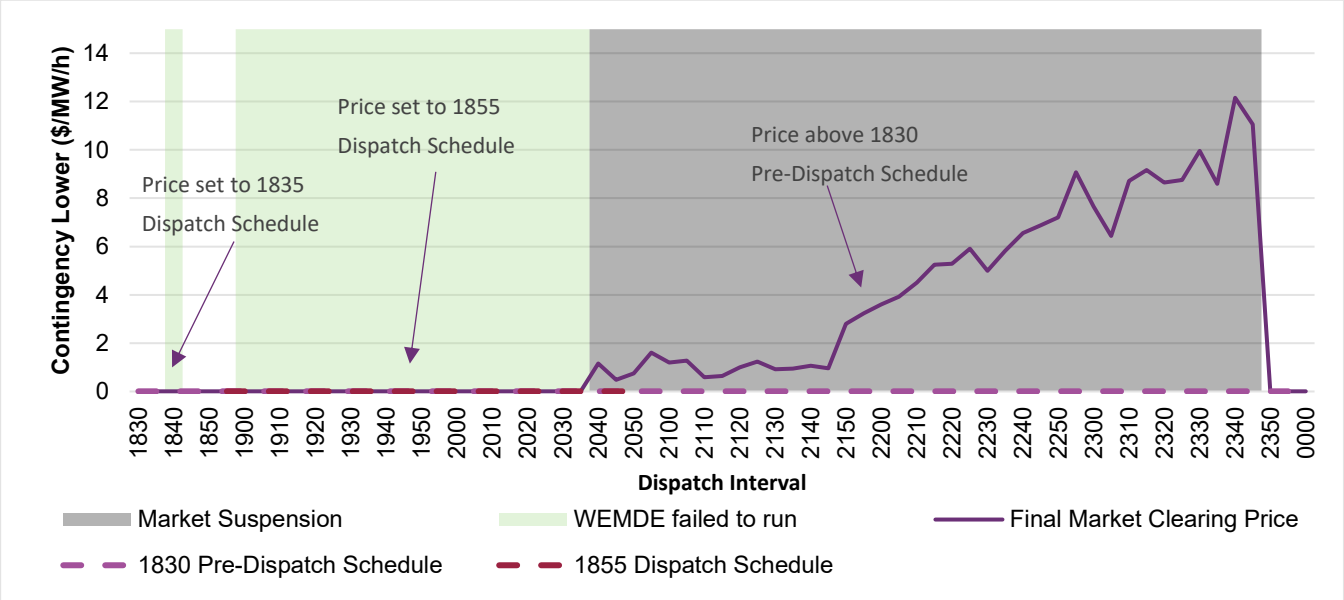
[8] AEMO is required to determine Market Clearing Prices for Real-Time Market suspension events by noon on the first Business Day following the end of the Trading Day on which the suspension occurred, or issue a Market Advisory notifying Market Participants of a delay in Market Clearing Price determination. See clauses 7.13.1CB and 7.13.1K of the ESM Rules.

Figure 6 Contingency Raise final Market Clearing Prices



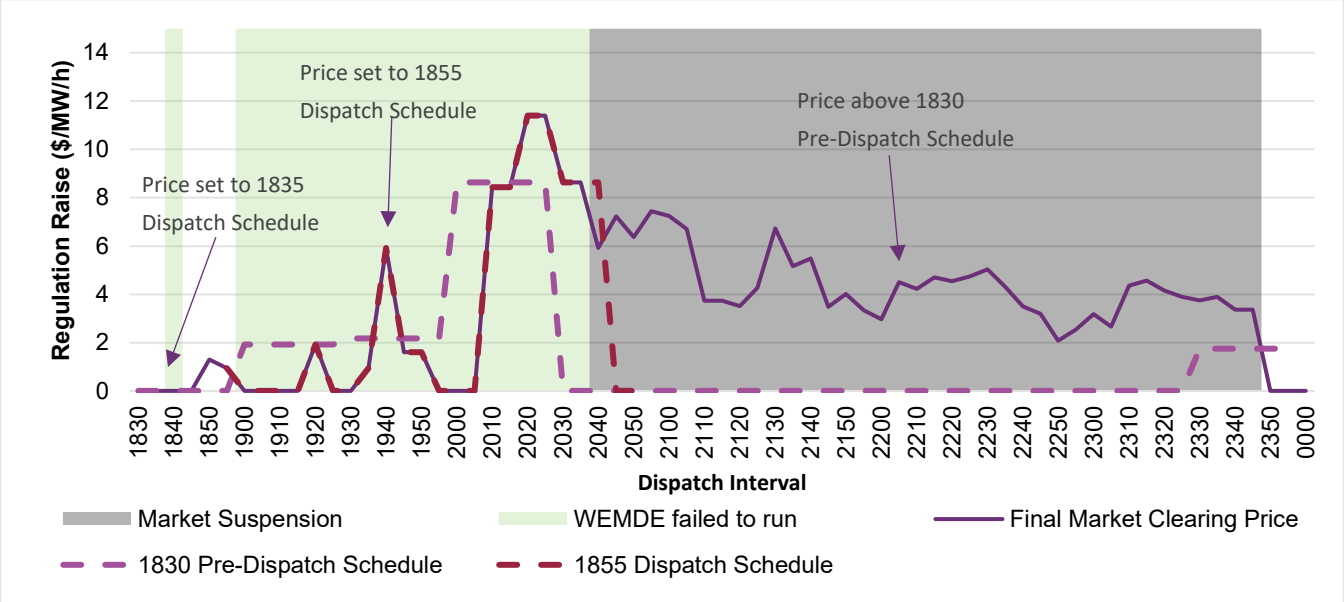
As shown in **Figure 7**, during the market suspension, final Market Clearing Prices for Contingency Lower were on average $5/MW/h higher than the Dispatch Interval 1830 hrs Pre-Dispatch Schedule price forecast.

Figure 7 Contingency Lower final Market Clearing Prices



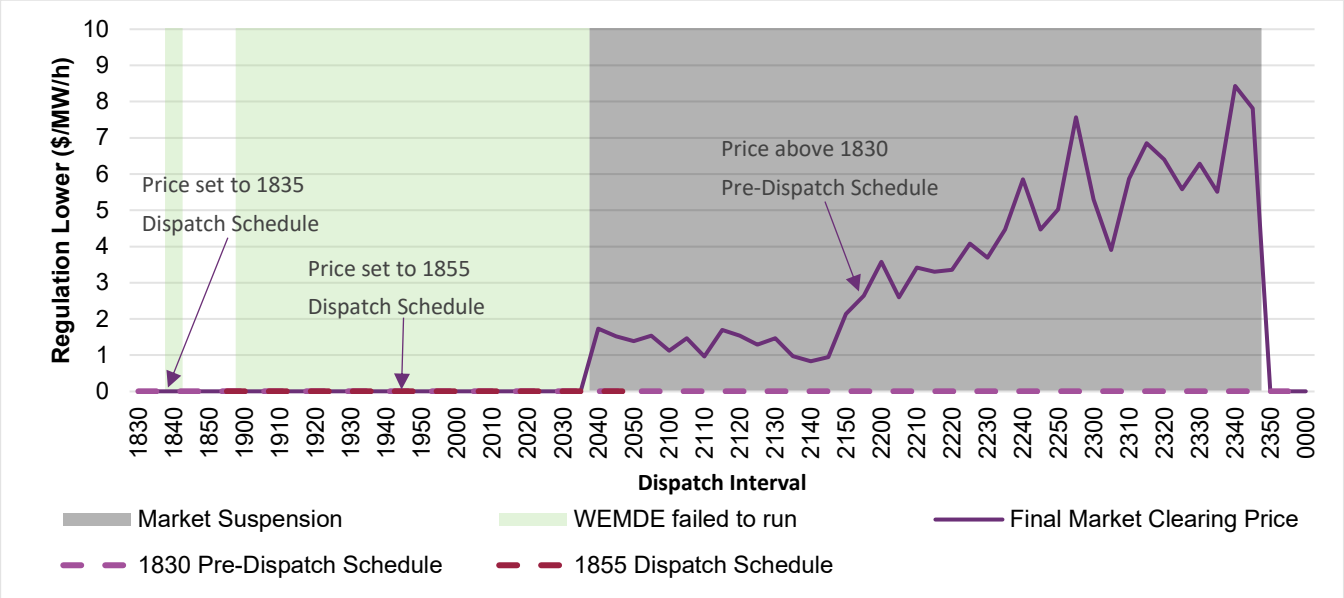
As shown in **Figure 8**, during the market suspension, final Market Clearing Prices for Regulation Raise were on average $4/MW/h higher than the Dispatch Interval 1830 hrs Pre-Dispatch Schedule price forecast.

Figure 8 Regulation Raise final Market Clearing Prices



As shown in **Figure 9**, during the market suspension, final Market Clearing Prices for Regulation Lower were on average $4/MW/h higher than the Dispatch Interval 1830 hrs Pre-Dispatch Schedule price forecast.

Figure 9 Regulation Lower final Market Clearing Prices



Rate of Change of Frequency (RoCoF) Control Service prices remained at $0/MWs/h throughout the incident, which was the forecasted price.

Net settlement amounts received during the suspension period will be reviewed by the Economic Regulation Authority.

As AEMO suspended the Real-Time Market under clause 7.11D.1(c) of the ESM Rules, the Economic Regulation Authority will assess the net settlement amounts received by Market Participants during the suspension period, as required by clause 7.12.1 of the ESM Rules.

4 AEMO has identified six next steps

IT systems failures can result in additional risks to power system operation and cause market impacts given the criticality of these systems. As such, to mitigate the risk and/or impact of occurrence of any similar incident, AEMO has identified the following next steps:

1. AEMO will publish a final report on this incident, which is expected to be completed by Q1 2026. The report is expected to provide an update on these next steps.
2. AEMO plans to present on this incident at the WAECF on 7 August 2025.
3. AEMO is conducting a full review of the IT systems involved and will progress the identified rectification activities. The rectification activities under consideration also include options to triage, manage and coordinate response to IT service availability degradations or outages faster to help minimise market consequences.
4. AEMO will share the findings of this review internally so that its other control rooms and markets learn from this incident and consider proactive risk mitigation measures, as relevant.
5. AEMO will share the lessons learned from this incident at a future WEM real-time operations training session and consider using the incident as a basis for a scenario training exercise.
6. AEMO recommends that EPWA undertake a consultation with industry stakeholders on whether the two-hour market resumption notice period defined in clause 7.11D.3(a)(i) of the ESM Rules should be retained, increased, or decreased.

AEMO's preliminary investigation has not identified any changes to the ESM Rules or WEM Procedures that AEMO considers necessary to prevent the future occurrence of similar incidents.

List of tables and figures

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Figures

Abbreviations

Abbreviation	Term
AEMO	Australian Energy Market Operator
AGC	automatic generator control
AWST	Australian Western Standard Time
EMS	energy management system
ESM Rules	Electricity System and Market Rules
EPWA	Energy Policy WA
IT	information technology
RoCoF	Rate of Change of Frequency
SWIS	South West Interconnected System
WAECF	Western Australian Energy Consultative Forum
WEM	Wholesale Electricity Market
WEMDE	Wholesale Electricity Market dispatch engine