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28 August 2026

Ms Anna Collyer
Chair
Australian Energy market Commission

By online submission

Dear Ms Collyer

Rule change requests – IPRR staged implementation approach rule change request package

The Australian Energy Market Operator (AEMO) is submitting the attached package of rule change requests to support the successful implementation of the National Electricity Amendment (Integrating price-responsive resources into the NEM) Rule (IPRR Rule).

This package comprises the following rule change requests:

- IPRR staged implementation approach;
- Accounting for Voluntary Scheduled Resources in the Frequency Performance Payments residual; and
- Additional minor IPRR changes.

These rule change requests seek to achieve outcomes that support successful and robust IPRR implementation and deliver long-term benefits for consumers, consistent with maximising the benefits of consumer energy resource uptake and the energy transition.

IPRR staged implementation approach rule change request

Following extensive internal planning, detailed design work and industry engagement, AEMO concluded that delivering dispatch mode on existing timelines created unmanageable delivery risk to the IPRR implementation project, with consequential implications for participants managing their own implementation programs. In April 2026, AEMO took the prudent decision to pause project delivery and to assess and explore alternative approaches with stakeholders.

This rule change request seeks to defer the implementation date for IPRR dispatch mode and access to VIM payments, for up to 2.5 years, while progressively delivering and trialling key aspects of IPRR functionality and market integration with market participants through the National Electricity Rules' (NER) regulatory sandboxing framework.

Additional IPRR implementation rule change requests

The IPRR implementation project has also identified additional refinements necessary to maximise benefits and support robust implementation. These changes would:

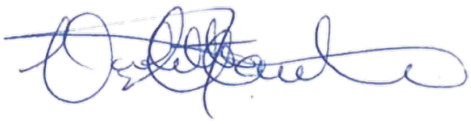
- account for Voluntary Scheduled Resources (VSRs) in the Frequency Performance Payments (FPP) residual rather than through individual assessment; and
- allow the publication of VSR SCADA data and the aggregation of non-scheduled load in central dispatch. AEMO considers these changes non-controversial and requests that the AEMC consider them through an expedited rule change process.

AEMO has submitted these as separate rule change requests to give the AEMC flexibility to consolidate the requests or consider each through separate processes as needed.

AEMO looks forward to continuing its collaboration with the AEMC and stakeholders across the energy sector to support successful IPRR implementation.

Any queries concerning this letter should be directed to Hannah Heath, Group Manager – Strategic Market Reform, at hannah.heath@aemo.com.au.

Yours sincerely,



Violette Mouchaileh

Executive General Manager, Policy and Corporate Affairs

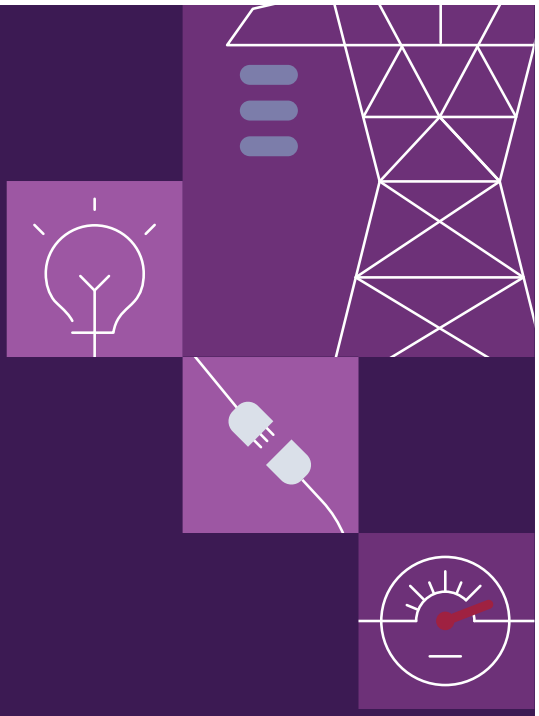
Attachments:

Electricity rule change proposal: IPRR staged implementation approach

Electricity rule change proposal: Accounting for Voluntary Scheduled Resources in the Frequency Performance Payments residual

Electricity rule change proposal: Additional minor IPRR changes

AEMO
AUSTRALIAN ENERGY MARKET OPERATOR



Electricity Rule Change Proposal

Additional minor IPRR changes

August 2026

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New South Wales | Queensland | South Australia | Victoria | Australian Capital Territory | Tasmania | Western Australia

Australian Energy Market Operator Ltd ABN 94 072 010 327

Contents

1. Summary

This rule change request proposes two amendments to the National Electricity Amendment (Integrating price-responsive resources into the NEM) Rule 2024 No. 24 (IPRR Rule) to address implementation issues identified through AEMO's IPRR implementation project and to facilitate Stage 1 of the proposed IPRR staged implementation approach. These are minor changes that enhance IPRR implementation in the long-term interest of consumers and does not alter the intent or design of the IPRR Rule. These requests are:

- Publishing Voluntary Scheduled Resource (VSR) Supervisory Control and Data Acquisition (SCADA) data
- Enabling aggregation of non-scheduled load in central dispatch

This rule change request is submitted in a package of IPRR implementation related rule change requests that address IPRR implementation issues in the long-term interest of consumers. The other rule change requests submitted in this package are:

- IPRR staged implementation approach rule change request
- Accounting for Voluntary Scheduled Resources in the Frequency Performance Payments residual rule change request

AEMO considers these rule change requests are non-controversial

This proposal seeks a small and discrete set of non-controversial amendments to the National Electricity Rules (NER). The proposed amendments do not alter the policy intent, eligibility settings, or incentive design established by the IPRR Rule. Rather they make administrative adjustments to facilitate Stage 1 of the IPRR staged implementation approach and maximise benefits from IPRR implementation.

AEMO proposes that these proposed amendments are considered through an expedited rule change process.

Publishing VSR SCADA data will enhance transparency and efficiency

The proposed rule change requires AEMO to publish Supervisory Control and Data Acquisition system (SCADA) data on actual Voluntary Scheduled Resource (VSR) generation and load.

The IPRR Rule omitted VSRs from the list of resource types for which AEMO must publish SCADA data on actual generation, or load.[1] All VSRs are required to have telemetry, either full SCADA or SCADA Lite.[2] These telemetry requirements would see SCADA data on actual VSR generation, and load communicated to AEMO and published under normal practice.

The proposed rule change will enhance information available to the market by addressing gaps in market transparency created by omitting VSR SCADA data publication from the IPRR Rule. Access to VSR SCADA data improves the information available for use by market participants in developing bidding strategies and supports DNSPs in developing and applying network limits.

AEMO considers publishing VSR SCADA data is a non-controversial change that would enhance market efficiency without imposing material costs. The proposal does not introduce new data collection requirements and instead

[1] NER 3.13.4(r).

[2] IPRR Rule 3.10A.1(f), VSR Guidelines section 5.4.1. SCADA Lite provides a simplified telemetry solution that allows smaller resources, including VSRs under 5 MW, to communicate operational data to AEMO at a lower sample rate than full 4 second SCADA. Further information can be found here.

makes use of existing telemetry and SCADA data feeds for which AEMO's systems are configured to automatically publish.

Enabling aggregation of non-scheduled load in central dispatch

IPRR staged implementation approach Stage 1 is a trial-like implementation of IPRR within AEMO's existing systems. It requires only minor system changes and operates under existing NER arrangements. Stage 1 is proposed to provide operational learnings to inform subsequent IPRR implementation decisions.

AEMO has identified a gap in the NER that must be addressed to facilitate the inclusion of Virtual Power Plants (VPPs) in Stage 1. NER 3.8.3(a) currently limits aggregation for central dispatch purposes to scheduled load, whereas VPPs involve the aggregation of non-scheduled customer load. Existing NER requirements therefore act as a barrier to the inclusion of VPPs in the Stage 1 IPRR staged implementation approach.

AEMO proposes removing the restriction to scheduled load in NER 3.8.3(a) that limits aggregation of non-scheduled load. Allowing non-scheduled load to be aggregated for participation in central dispatch would enable the inclusion of VPPs in AEMO's Stage 1 IPRR trial and increase flexibility in the ways non-scheduled load can be aggregated if future circumstances require it. Removing this restriction may therefore also support the longer-term integration of VPPs into the NEM.

The proposal is also consistent with NEM reform that has progressively removed restrictions to better accommodate Consumer Energy Resources (CER), energy storage systems and VPPs. Allowing non-scheduled load to be aggregated for central dispatch would continue this evolution by reducing barriers to participation and supporting a more flexible and technology-neutral framework for demand-side participation

AEMO considers this to be a non-controversial change that would impose immaterial implementation costs and deliver material benefits. These benefits include operational learnings that support the effective implementation of IPRR and facilitate the longer-term integration of VPPs into the NEM.

2. Relevant background

On 19 December 2024, the Australian Energy Market Commission (AEMC) made the IPRR Rule,[3] which introduces a framework that allows aggregated CER and DER, price-responsive loads, and other non-scheduled resources, to be scheduled and dispatchable in the National Electricity Market (NEM).

The AEMC's IPRR Rule is the last stage of the rule change process that was initiated by AEMO's January 2023 rule change proposal for the "Scheduled Lite Mechanism."[4] This rule change request was developed in accordance with the final recommendations made by the Energy Security Board (ESB) to Energy Ministers as part of its Post 2025 Market Design work.[5]

The IPRR Rule introduced VSRs, enabling aggregated resources, such as virtual power plants (VPPs), small stand-alone generators or energy storage systems, community batteries, and flexible loads to participate in the NEM central dispatch. VSRPs may elect to participate in one of three dispatch modes - active (participate as a fully scheduled resource); inactive (submit bids but not follow dispatch targets); or hibernated (not participate in central dispatch for energy).

2.1.1. SCADA in the NEM

SCADA stands for Supervisory Control and Data Acquisition. It is the real-time telemetry and control system used to communicate operational data between generating units, loads, batteries, aggregators and AEMO. SCADA provides AEMO with near real-time information about the operating state of power system elements including generation and load levels, unit status, state of charge, and other operational measurements used in forecasting, dispatch and maintaining system security.

VSRs are required to have either a full SCADA connection if over 5MW, or a SCADA-Lite connection if under.[6] Full SCADA sends a signal to AEMO approximately every 4 seconds and is required for scheduled loads over 30MW, and bidirectional units and VSRs over 5MW. SCADA Lite enables smaller participants, such as operators of small generators, batteries, virtual power plants to provide operational data at a lower frequency.[7]

[3] National Electricity Amendment (Integrating price responsive resources into the NEM) Rule 2024.

[4] Further information on the Scheduled Lite Mechanism is available here

[5] Further information on the Energy Security Board's Post 2025 Market Design work is available here.

[6] AEMO, VSR Guideline, Section 6.3.2(a)(ii).

[7] For further information on SCADA Lite see here.

3. Publishing VSR SCADA data will enhance transparency and efficiency

3.1. Current Rules

NER 3.13.4(r) lists several resource types for which AEMO must publish actual generation and load in accordance with the timetable.[8] "Actual generation and load" is in practice SCADA data from the monitored facilities.

AEMO is currently required to publish details of actual generation for each:

- scheduled generating unit, semi-scheduled generating unit and non-scheduled generating unit or non-scheduled generating system;[9] scheduled bidirectional unit and non-scheduled bidirectional unit or non-scheduled integrated resource system.[10]

AEMO must also publish actual load for:[11]

- each scheduled bidirectional unit and scheduled load.

AEMO is only required to publish SCADA data on actual generation and load for those plants for which data is available to AEMO.[12]

Under the IPRR Rule, VSRs were omitted from the list of resource types for which AEMO must publish actual generation, or load.[13] The IPRR Rule did however require actual state of charge to be published for each VSR comprising one or more market bidirectional units.[14]

Publication of VSR SCADA data will primarily apply to VSRs that are in active and inactive modes, as VSRs in these modes are considered scheduled and required to provide SCADA data on generation and load to AEMO.[15] VSRs in hibernated mode are, in contrast, considered non-scheduled and are not required to provide SCADA data to AEMO.[16]

3.1.1. Issues with the current Rule

Omitting VSRs from SCADA publication arrangements creates a transparency gap that limits the information on VSR behaviour available to other industry and market participants who would use such information to inform their participation.

[8] The 'timetable' is published by AEMO under clause 3.4.3 for the operation of the spot market and the provision of market information. The Timetable specifies who must do what by when in the spot market.

[9] NER 3.13.4(r)(1)

[10] NER 3.13.4(r)(1A)

[11] NER 3.13.4(r)(3)

[12] NER 3.13.4(s)

[13] NER 3.13.4(r)

[14] IPRR Rule 3.13.4(p)(9)

[15] AEMO, VSR Guideline, 27 November 2025, Section 6.3.1(a)

[16] IPRR Rule 3.10A.2(l)(2)(ii) and AEMO, VSR Guideline, 27 November 2025, Section 6.3.2(a)(ii)

AEMO understands that market participants use published SCADA data to inform their market participation and Distribution Network Service Providers (DNSPs) use this information to inform the development of distribution network limits. The absence of information on VSR SCADA generation and load therefore inhibits these activities.

3.1.2. How the proposal will address the issues

AEMO proposes publishing SCADA data on actual VSR generation and load, consistent with existing arrangements that apply to scheduled bidirectional units.

The proposal addresses gaps in market transparency that would:

- improve the information available to inform market participation. Improved visibility of actual VSR activity allows participants to better understand the response of price-responsive resources to dispatch and pricing signals and to incorporate that understanding into bidding and rebidding strategies.
- It also supports DNSPs in developing and applying network limits. Publication of VSR SCADA data provides DNSPs with visibility of aggregated VSR behaviour. DNSPs can use this information to model and allocate aggregated VSR activity to individual feeders to inform real-time adjustments to Flexible Export Limits (FELs) and Dynamic Operating Envelopes (DOEs).

There is no practical reason why VSR SCADA information should not be published. All VSRs are required to have telemetry, either full SCADA or SCADA-Lite under 3.10A.1(f) of the IPRR Rule and Section 5.4.1 of the VSR Guidelines on telemetry data requirements.[17] VSRs are required to transmit this data to AEMO while in active and inactive modes. These telemetry requirements see SCADA data communicated to AEMO which would be otherwise published automatically under normal practice.

The proposal also ensures consistent treatment of VSRs relative to comparable resource types. VSRs are comprised of qualifying resources that might include generation, load, and bidirectional units. SCADA data publishing requirements currently apply to these resource types considered individually. Requiring publication of VSR SCADA data ensures aggregated VSRs are subject to the same transparency requirements as equivalent standalone resources.

AEMO is not aware of any privacy or confidentiality barriers to publishing VSR SCADA information. The composition of National Metering Identifier (NMIs) within a VSR is not publicly disclosed, and AEMO's naming convention for VSR DUIDs is based on zones rather than individual assets.[18] As a result, the publication of aggregated VSR SCADA data would not enable participants to infer confidential information about underlying units.[19]

3.2. Proposed Rule

The proposed rule is to amend NER 3.13.4(r) as follows:

> (r) In accordance with the *timetable*, *AEMO* must *publish* details of:
>
> > (1) actual *generation* for each *scheduled generating unit*, *semi-scheduled generating unit* and *non-scheduled generating unit* or *non-scheduled generating system*;

[17] AEMO, VSR Guidelines, 27 November 2025, p. 30.

[18] A dispatchable unit identifier (DUID) is the unique identifier assigned to a market resource for participation in NEM dispatch, metering and settlement processes

[19] The NMI composition of a VSR is not public information and only available to AEMO, the relevant DNSP, and the VSRP.

(1A) actual *generation* for each *scheduled bidirectional unit*, *voluntarily scheduled resource* and *non-scheduled bidirectional unit* or *non-scheduled integrated resource system*;

(2) actual *network service* for each *scheduled network service*; and

(3) actual *load* for each *scheduled bidirectional unit*, *voluntarily scheduled resource* and *scheduled load*.

AEMO proposes that the proposed rule commence at the start of Stage 2 of the IPRR staged implementation approach.

3.3. How the Proposed Rule Contributes to the National Electricity Objective (NEO)

Before the AEMC can make a change to the NER it must apply the rule making test set out in the NEL, which requires it to assess whether the proposed rule will or is likely to contribute to the National Electricity Objective (NEO). Section 7 of the NEL states the NEO is:

"to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to:

a. price, quality, safety, reliability and security of supply of electricity; and

b. the reliability, safety and security of the national electricity system; and

c. the achievement of targets set by a participating jurisdiction—

i. for reducing Australia's greenhouse gas emissions; or

ii. that are likely to contribute to reducing Australia's greenhouse gas emissions."

AEMO considers the proposed rule contributes to the NEO as publishing SCADA data on actual VSR generation and load will promote efficient investment in, and efficient operation and use of, electricity services for the long-term interest of consumers primarily with respect to price.

The proposed change is expected to have a positive impact on market efficiency by providing more complete information to inform market participant bidding strategies and DNSP network limit development and operation. This would enhance efficiency in dispatch and market price formation. More efficient network utilisation may also arise from enhanced information on actual VSR generation and load as DNSPs have better information to calibrate network limits.

3.4. Expected benefits and costs of the proposed Rule

AEMO is not aware of material additional costs for any party from publishing SCADA data on actual VSR generation and load. The proposal does not introduce new data collection requirements and instead makes use of existing telemetry and SCADA data feeds. AEMO's systems are automatically configured to publish this information.

Benefits are expected to be realised by DNSPs in establishing network limits and by other market participants in effectively participating in the market. These benefits will ultimately support more effective market and industry operation leading to lower consumer costs than would have otherwise been the case.

4. Enabling non-scheduled load aggregation in central dispatch

4.1. Current Rules

NER 3.8.3 contains provisions regarding aggregation for central dispatch. The aggregation approval criteria in NER 3.8.3(b) are framed around the aggregation of the asset classes specifically identified in NER 3.8.3(a).

NER 3.8.3(a) requires that:

> *Market Participants* who wish to aggregate any of their *generating units*, *bidirectional units, scheduled network services* or *scheduled loads* for the purpose of *central dispatch* must apply to *AEMO* to do so.

NER 3.8.3(a) therefore permits the aggregation of both scheduled and non-scheduled generating units, as well as bidirectional units. In contrast, load aggregation is limited to scheduled loads and does not extend to non-scheduled loads.

4.2. Issue with the current rules

NER 3.8.3(a) currently prevents the aggregation of non-scheduled load for participation in central dispatch. This restriction presents two issues.

- It limits AEMO's ability to include VPPs in Stage 1 of the proposed IPRR staged implementation approach. VPPs comprise aggregations of non-scheduled customer load, and AEMO considers that the limitation in NER 3.8.3(a) regarding non-scheduled load acts as a barrier to their participation.
- The restriction reduces the flexibility available to aggregate non-scheduled load outside the IPRR framework in the future. The current limitation may therefore create an unnecessary barrier to future integration pathways for flexible demand resources.

4.3. How the proposal addresses the issues

AEMO proposes amending NER 3.8.3(a) to allow market participants to apply to aggregate both scheduled and non-scheduled load for the purposes of central dispatch. The proposed amendment would address both the IPRR staged implementation approach Stage 1 implementation barrier and the longer-term limitations created by the current restriction on non-scheduled load aggregation. The proposal would:

- Provide the flexibility to enable VPP participation in Stage 1 of the proposed IPRR staged implementation approach. Including VPPs in Stage 1 would provide valuable operational learnings, particularly in relation to managing large numbers of VPP NMIs, which is one of the key IPRR implementation challenges that Stage 1 is intended to address.
- Remove an unnecessary restriction on the aggregation of non-scheduled load and provide greater flexibility for future participation arrangements. This flexibility may support future participation pathways for flexible demand resources and VPPs, should circumstances arise where aggregation outside the IPRR framework is beneficial. AEMO does not currently plan to pursue such an approach beyond Stage 1. However, additional flexibility remains valuable given the increasing role of CER and VPPs in the future NEM.

The proposal is also consistent with NEM reform that has progressively removed restrictions to better accommodate CER, energy storage systems and VPPs. These reforms include the Unlocking CER Benefits

Through Flexible Trading rule change and Integrating Energy Storage Systems into the NEM rule changes. [20] [21] Allowing non-scheduled load to be aggregated for central dispatch would continue this evolution by reducing barriers to participation and supporting a more flexible and technology-neutral framework for demand-side participation

4.4. Proposed Rule

AEMO proposes that NER 3.8.3(a) be amended to remove the limitation to only aggregating scheduled load for participation in Central Dispatch.

> *Market Participants* who wish to aggregate any of their *generating units*, *bidirectional units, scheduled network services, non-scheduled loads*, *scheduled loads* for the purpose of *central dispatch* must apply to *AEMO* to do so.

Consequential amendments will also need to be made to NER 3.8.3 to include non-scheduled loads.

AEMO requests this rule change commence immediately as it is intended to facilitate IPRR staged implementation approach Stage 1.

4.5. How the Proposed Rule Contributes to the National Electricity Objective (NEO)

Before the AEMC can make a change to the NER it must apply the rule making test set out in the NEL, which requires it to assess whether the proposed rule will or is likely to contribute to the National Electricity Objective (NEO). Section 7 of the NEL states the NEO is:

"to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity with respect to:

- *a. price, quality, safety, reliability and security of supply of electricity; and*
- *b. the reliability, safety and security of the national electricity system; and*
- *c. the achievement of targets set by a participating jurisdiction—*
  - *iii. for reducing Australia's greenhouse gas emissions; or*
  - *iv. that are likely to contribute to reducing Australia's greenhouse gas emissions."*

AEMO considers the proposed rule would contribute to the NEO by promoting the efficient operation and use of electricity services in the long-term interests of consumers, particularly with respect to price.

Allowing non-scheduled load to be aggregated for participation in central dispatch would support a more efficient and robust implementation of IPRR by reducing implementation risk and enabling operational learnings from Stage 1 VPP participation. The proposal would also support the effective integration of VPPs into the NEM and provide greater flexibility for future participation arrangements involving flexible demand resources. This may contribute to more efficient market outcomes.

[20] For more information on the unlocking CER benefits rule change see here.

[21] For more information on the Integrating Energy Storage Systems into the NEM rule change see here.

4.6. Expected benefits and costs of the proposed Rule

AEMO is not aware of any material additional costs arising from the proposed removal of the restriction that limits aggregation in central dispatch to scheduled load.

The proposed rule would enable VPPs to participate in Stage 1 and realise the benefits of central dispatch participation while supporting broader consumer benefits from increased demand-side participation. By facilitating more effective VPP integration and a more efficient implementation of IPRR, the proposed rule may reduce AEMO IPRR implementation costs thereby minimising customer costs over time.