



AEMC

Enhancing investment certainty in the R1 process

The Commission has made a final rule that will enhance investment certainty in the R1 process

The decarbonisation of the National Electricity Market (NEM) requires a significant amount of new generation and storage capacity to be connected at an unprecedented rate. The Australian Energy Market Operator's (AEMO's) Draft 2024 Integrated System Plan ISP expects that approximately six GW of new capacity needs to be added every year to replace retiring thermal plants and achieve emissions reduction targets.1

This growth in new generation and storage capacity is accompanied by a large increase in the number of projects in the connection queue: from 389 projects in July 2022 to 593 projects in March 2024.2

To help the large magnitude of projects in their connection process, the Commission has made a final rule that aims to improve investment certainty in the R1 process by addressing several gaps and hindrances to timely connections.

The final rule will improve the speed and clarity of the R1 process while promoting power system security, safety and reliability

The R1 process occurs during the period between the execution of a connecting generator's connection agreement and the completion of market registration. It involves the connecting party preparing a detailed engineering design of their plant, a suite of technical models, a commissioning plan and other documentation (constituting the R1 package) to demonstrate to the network service provider (NSP) and to AEMO that the plant meets the Generator Performance Standards (GPS). The GPS is agreed to before the start of the R1 process as part of the connection agreement between the generator and the

During the R1 process, generators liaise with both the NSP and AEMO to ensure that the connecting plant will meet the GPS and will not have any adverse power system impacts.

The final rule will improve the R1 process by addressing the issues that contribute to delays and help to ensure that engineering effort at the R1 due diligence process is appropriately targeted. It also recognises that given the scale of transition underway, and the amount of generation that is needed to connect, shifting some of the risk associated with connections from connecting parties to networks (while still preserving system security) is appropriate.

The final rule will:

- formalise the commencement and conclusion of the R1 process through timely notifications by NSPs and AEMO and guidance on what constitutes a complete R1 package
- clarify the obligations of all parties during the R1 process and introduce a timeframe for AEMO to determine whether it is satisfied of a plant's capability to meet or exceed its technical performance standards
- require AEMO and NSPs to provide written reasons for additional data and information requests during an R1 assessment at the outset, alongside permitting connection applicants to request further reasons where more clarification is required to address the system security risk identified

AEMO, Draft 2024 Integrated System Plan, p 10.

These numbers include projects across the entire connection process; from enquiry to commissioning. See AEMO's Connections Scorecards for more information.

- remove barriers to sensible revisions of a generator's performance standards, reducing the likelihood of unnecessary engineering work
- allow AEMO to conditionally register generators to streamline connections, but only after it
 has consulted with industry as to when and how conditional approval may be used
- require AEMO to add new information in its registration information resource and guidelines to describe how it assesses plant capability and considers adverse power system impacts in the R1 process.

Our final rule commences on 11 July 2024, with a requirement for AEMO to update its registration information resource and guidelines by no later than 1 March 2025.

The Commission has considered the issues and solutions proposed by the CEC and other stakeholders

On 17 May 2023, the Commission received a rule change request from the CEC to amend the National Electricity Rules (NER). The CEC identified several issues with the R1 process and proposed solutions to these issues. The CEC's rule change request arose from the Connections Reform Initiative (CRI), through which the CEC extensively collaborated with generators, renewable energy developers, NSPs and market bodies to establish potential solutions to the challenges involved with the connections and registration processes.

In its rule change request, the CEC and its members noted, among other things, that a lack of NER obligations on parties in the R1 process is contributing to poor engagement and process delays.

To address these issues, the CEC proposed changes to the NER to include a self-assessment process through Type pathways, a materiality framework, new timeframes, and facilitated reviews.

The Commission published a consultation paper on 17 August 2023 and received 28 submissions from stakeholders comprising a diverse range of views. We hosted technical working groups to hone in on the key issues and explore alternative solutions.

The draft determination and draft rule were published on 7 March 2024.

We received 17 submissions in response to the draft determination, a majority of which called for the Commission to build upon the proposed reforms to provide connecting parties with clearer roles and responsibilities in the R1 process.

Accordingly, the final rule addresses the range of feedback received and creates a more clear and pragmatic process to speed up grid connections for new renewable energy generation and storage.

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