



## Improving the NEM access standards – Package 1

### The Commission has made a draft rule that would improve the NEM access standards

The Commission has made a more preferable draft rule (hereafter 'draft rule') that would improve the National Electricity Market (NEM) access standards in response to a fast-track rule change request submitted by the Australian Energy Market Operator (AEMO). This request is to give effect to AEMO's final recommendations in its [review of technical requirements for connection](#), which AEMO is required to conduct at least once every five years, pursuant to clause 5.2.6A of the National Electricity Rules (NER). Since AEMO undertook extensive public consultation on the nature and content of the request during its review, the Commission has decided to follow a fast-track process for this rule change. This process does not include a consultation paper and proceeds straight to draft determination.

The NEM access standards contained in Chapter 5 of the NER and its accompanying schedules define the permissible range of technical requirements that connection applicants need to meet before being allowed to connect to the NEM. Connection applicants and network service providers (NSPs), with advice from AEMO, can agree on negotiated access standards for certain requirements, on a case-by-case basis.

The draft rule would improve the access standards by:

- adding more prescription and clarity, to help reduce costs and time spent in negotiations
- making them more fit for purpose in an increasingly inverter-based resources connected NEM
- broadening their application to synchronous condenser connections and all high voltage direct current (HVDC) links.

The draft rule is largely consistent with AEMO's proposed amendments to the NEM access standards. However, it is a more preferable rule since the Commission has made various consequential amendments that seek to add clarity and ensure the draft rule reflects the intended policy outcomes and best advances the National Electricity Objective (NEO).

### The draft rule would promote the National Electricity Objective by lowering connection costs and promoting faster connections

With the energy transition underway, the NEM needs to grow and change to continue delivering secure, reliable and affordable electricity to millions of Australians whilst achieving the government's emissions reduction targets. AEMO's 2024 Integrated System Plan (ISP) projects that on the optimal development path, grid-scale variable renewable energy would triple by 2030 and increase by six-fold by 2050. Utility scale batteries would increase by five-fold by 2030 and six-fold by 2040.

This means that, compared to a decade ago when NSPs only had a handful of connection applications to process, NSPs are currently handling hundreds of connection applications from a broad range of plant types. The increase in application volume, combined with more complex system security interactions between plants and a shortage of power engineers across the industry, has resulted in a longer connections queue. To support this current and future growth and deliver the energy transition, new NEM connections need to be approved at a much faster rate than at present, while lowering connection costs and keeping the whole system stable and reliable throughout the transition. The draft rule would positively contribute to all these challenges as discussed below.

## The draft rule would be in the long-term interests of energy consumers

The draft rule would contribute to advancing the NEO by:

- **Supporting safety, security and reliability** – The improved access standards would increase power system resilience by better utilising already available plant capability to withstand disturbances, including for high voltage direct current (HVDC) links, and broadening their application to synchronous condensers needed for system security.
- **Contributing to emissions reduction** – The improved access standards would accelerate the connections process and signal new investment required to meet Australia's emissions reduction targets by making the access standards more prescriptive to minimise ambiguity and clarify their application to different technologies.
- **Promoting innovation and flexibility** – The improved access standards would promote innovation and flexibility in the power system by removing impediments for connecting grid-forming inverters and increase investment efficiency by broadening the options available for connection applicants under different circumstances.
- **Having low implementation costs and complexity** – The improved access standards would contribute to lowering overall connection costs for most applicants. They would also reduce the burden on NSPs and AEMO and simplify their function by streamlining the connections process, providing clarity and reducing the need for negotiations.

## The draft rule would amend the access standards for generators, integrated resource systems, synchronous condensers and HVDC links

The draft rule would amend the access standards to apply them by plant type rather than by the registration category, which relates to the owner or operator of the plant, as is the case currently. This would ensure a consistent approach to managing system security for similar types of connecting plant, irrespective of the persons connecting, especially considering the increasing variety of persons and plant connecting to the power system.

- Schedule 5.2 would apply to all generating systems, integrated resource systems and synchronous condenser systems (collectively known as schedule 5.2 plant).
- Schedule 5.3 would apply to all plant that consume electricity from a network, including a distribution network or a source of load within an integrated resource system (collectively known as schedule 5.3 plant).
- Schedule 5.3a would apply to any HVDC system with a power transfer capability of 5 MW or more (known as schedule 5.3a plant).
- The persons to which the obligations apply would be captured by new definitions of Schedule 5.2 Participant, Schedule 5.3 Participant and Schedule 5.3a Participant.

The draft rule would introduce a suite of reforms to the access standards for generators, integrated resource systems and synchronous condensers to align with best power system performance, streamline the connection process, improve power system resilience and support efficient investment. The draft rule would align the access standards for HVDC links with those applicable to inverter-based generation and integrated resource systems, as they have similar power system impacts and capabilities as modern HVDC links.

## The Commission is seeking stakeholder feedback by 30 January 2025

The Commission welcomes written submissions responding to this draft determination and rule by 30 January 2025. To make a submission, visit our website, [www.aemc.gov.au](http://www.aemc.gov.au), find the 'Lodge a submission' function under the 'Contact Us' tab, and select the project reference code **ERC0393**. Tips for making submissions on rule change requests are available on our [website](http://www.aemc.gov.au).

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