



Licensing arrangements for generators in South Australia

Improvements to technical standards in the National Electricity Rules (**Rules**) mean that some of the Essential Services Commission's (**Commission**) [2017 model licence conditions for new generators](#) may be redundant.

The Australian Energy Market Operator (**AEMO**) has provided to the Commission updated advice on which of the technical licence conditions for new generators should be retained or removed.

The Commission is seeking stakeholder comment on the potential removal of certain conditions. We invite written submissions by 12 July 2019 and would be pleased to meet with stakeholders for a briefing upon request.

On 5 October 2018, amendments to the Rules commenced, which make significant changes to technical performance standards for generators seeking to connect to the national electricity grid and the process for negotiating those standards.

The Australian Energy Market Commission (**AEMC**) has [published a rule determination](#) that seeks to improve and clarify the negotiating process to agree levels of technical performance when connecting generators, customers and market network service providers. Under the rule, negotiations can occur more efficiently so that each connection has a level of performance that balances system security and cost based on the needs of the local system.

The rule also changes the technical requirements for connecting generators, including the requirements for generating systems to be able to:

- ▶ control their active power output to limit their contribution to frequency and voltage disturbances

- ▶ supply and absorb reactive power for the control of voltage, where this service is needed on the power system
- ▶ inject and absorb reactive current during disturbances, and
- ▶ maintain operation in the face of certain frequency and voltage disturbances (including faults and contingency events).

The rule change request was proposed by AEMO, following its work with the Commission on the [Inquiry into the licensing arrangements for generators in South Australia \(Inquiry\)](#). While AEMO's request was not accepted in totality by the AEMC, many of the issues raised to the Commission through the Inquiry process have been factored into the AEMC's decision.

AEMO and the Commission are now reviewing the amended Rules against the Commission's 2017 model licence conditions for new generators established in the Inquiry. AEMO has provided to the Commission updated advice on which of the technical licence conditions for new generators should be retained or removed.

A copy of AEMO's advice is available on the Commission's website.

In summary, AEMO's position is to retain three of the 15 conditions, as it considers that the amended rules otherwise protect the security and reliability of the South Australian network (refer Table 1 below).

Table 1: AEMO position on retention and removal of technical licence conditions

No.	2017 model licence conditions for new generators - focus area	AEMO's position
2	Disturbance ride-through capability – general requirements	Remove
3	Disturbance ride-through – Reactive current injection and reactive power support	Remove
4	Disturbance ride-through – Active power injection requirements (active power recovery)	Remove
5	Disturbance ride-through – Multiple low voltage disturbance ride-through	Remove
6	Disturbance ride-through – High voltage disturbance ride-through	Remove
7	Disturbance ride-through – Partial load rejection	Remove
8	Disturbance ride-through – Frequency disturbance ride-through	Remove
9	Disturbance ride-through – Voltage phase angle shift	Retain
10	Voltage control capability	Remove
11	System strength	Retain
12	Active power control capability	Remove
13	Active power control capability via Automatic Generation Control	Remove
14	Active power control capability (ramp rate of active power)	Remove
15	Active power control capability (remote monitoring and control)	Remove
16	System restoration	Retain

Next steps

The Commission is now consulting on AEMO's updated advice and invites written submissions by Friday, 12 July 2019.

To facilitate the provision of submissions or address any queries, the Commission would be pleased to meet with stakeholders for a briefing upon request.

The Commission intends to release a decision with

model licence conditions for new generators by October 2019.

Further Information

Inquiry into the licensing arrangements for generators in South Australia

- ▶ 2017 model licence conditions for new generators
- ▶ Final Inquiry Report

Refer: <http://bit.ly/Inquiry-LicensingArrangements-generators>

Background

Since 2005, the Commission has applied additional conditions in licences for grid-scale, wind-powered generators. The licence conditions apply in the absence of national electricity rules which effectively integrate new generation technologies, and are intended as a transitional arrangement until such time as adequate national rules come into effect.

On 17 August 2017, the Commission released the Final Report on the Inquiry into the licensing arrangements for generators in South Australia.

The Inquiry was conducted under Part 7 of the Essential Services Commission Act 2002 to determine whether or not there should be any changes to the Commission's technical licensing conditions for electricity generators connected to the National Electricity Market (NEM).

The Commission found that there was a need for it to continue to apply transitional technical conditions within licences for new electricity generators which are to be connected to the NEM (regardless of generation type) on the basis that this will protect South Australian consumers' long-term interests with respect to the price, quality and reliability of essential services.

The transitional technical conditions, which are consistent with and do not duplicate existing national rules and frameworks, require new generators to be better able to:

- ▶ ride through power system disturbances without prematurely disconnecting and will also be available to assist with remediating contingency events

- ▶ control their energy output to maintain stable operation of the power system (as well as being able to assist with the control of voltage and frequency, if required)
- ▶ manage and control voltages to support the network during disturbances and to efficiently transfer power
- ▶ be capable of operating in weak system conditions (where limited fault current is available), and
- ▶ assist with power system restoration, should there be a major outage on the power system.

At that time, the Commission noted that it would continue to monitor and review developments in this sector, with a particular focus on changes in NEM rules and associated arrangements, with a view to removing its transitional local technical licence conditions should they become redundant in the future.

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Essential Services Commission

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