

# Amended 2017 model licence conditions for new generators

## Interpretation of this schedule

### 1. Interpretation

- 1.1 Terms used in this schedule and also in the National Electricity Rules (NER) have the same meaning in this schedule as they have in those rules (unless otherwise specified or unless the context otherwise requires).
- 1.2 This schedule retains the numbering convention of the 2017 model licence conditions.
- 1.3 For the purposes of this schedule, the term **Commission** means the Essential Services Commission, established under the Essential Services Commission Act 2002.

## Disturbance ride through capability

### 9. Disturbance ride-through (voltage phase angle shift)

- 9.1 The generating system must not include any vector shift or similar relay/protective function acting upon voltage phase angle which might operate for phase angle changes less than 20 degrees.

## System strength

### 11. System strength

- 11.1 Individual components of plant within a generating system, which includes but is not limited to generating units and dynamic reactive power plant, must be capable of operating down to the following levels at the high voltage terminals in relation to each component:
  - (a) minimum short circuit ratio of 1.5, and
  - (b) minimum positive sequence X/R ratio of 2.

## System restoration

### 16. System restoration

- 16.1 Where sufficient minimum fault level is available from online synchronous machines, the generating system must have the following capability in the event of a black system:
  - (a) the generating system must be capable of operation with auxiliary loads only for X minutes<sup>1</sup> while system load is being restored, and
  - (b) the generating system, including, but not limited to, each of its generating units and dynamic reactive power support plant (as applicable) must have the capability to provide steady-state and dynamic reactive power when operating with auxiliary loads only for X minutes while system load is being restored.<sup>2</sup>

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<sup>1</sup> The exact duration will be specified by the Commission at the time the licence is issued.

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