

Update report Stakeholder feedback template:

AEMO Review of technical requirements for connection

Stakeholders making a submission on the recommendations set out in the AEMO draft report may use the below template to provide feedback. Please consider the confidentiality disclaimer at the end of this document.

Stakeholder: Huawei Technologies (Australia) Pty Ltd

Schedule 5.2 Conditions for Connection of Generators

NER Schedule 5.2 issue	Schedule 5.2 (Generators) – feedback on revised recommendations and relevant draft NER amendments
NER S5.2.1 – Outline of requirements	
Application of Schedule 5.2 based on plant type instead of registration category and extension to synchronous condensers	
NER S5.2.5.1 – Reactive power capability	
Voltage range for full reactive power requirement	What is the rule for NSP to nominate a centre point?
Treatment of reactive power capability considering temperature derating	We propose Option 3. Both active power and reactive power should be reduced to keep the power factor unchanged.
Compensation of reactive power when units are out of service	
S5.2.5.7, S5.2.5.8, S5.2.5.13	
Simplifying small connections	
NER S5.2.5.2 – Quality of electricity generated	
Reference to plant standard	
NER S5.2.5.4 – Generating system response to voltage disturbances	
Overvoltage requirements for medium voltage and lower connections	•
Requirements for overvoltages above 130%	•

NER Schedule 5.2 issue	Schedule 5.2 (Generators) – feedback on revised recommendations and relevant draft NER amendments
Clarification of continuous uninterrupted operation (CUO) in the range 90% to 110% of normal voltage	
NER S5.2.5.5 – Generating system response to disturbances following contingency events	
Definition of end of a disturbance for multiple fault ride through	
Form of multiple fault ride through clause	We recommend that AEMO publish a test specification for MFRT so that OEMs can provide lab test reports and apply them to different projects.
Number of faults with 200 ms between them	
Reduction of fault level below minimum level for which the plant has been tuned	
Active power recovery after a fault	•
Rise time and settling time for reactive current injection	
Commencement of reactive current injection	
Clarity on reactive current injection volume and location and consideration of unbalanced voltages	Do AEMO and the NSP have specific requirements for negative sequence current in unbalanced faults?
Metallic conducting path	
Reclassified contingency events	We recommend that the NSP can provide detailed credible contingency events.
NER S5.2.5.7 – Partial load rejection	
Application of minimum generation to energy storage systems	
Clarification of meaning of CUO for NER S5.2.5.7	
NER S5.2.5.8 – Protection of generating systems from power system disturbances	
Emergency over-frequency response	•
NER S5.2.5.10 – Protection to trip plant for unstable operation	
Requirements for stability protection on asynchronous generating systems	
NER S5.2.5.13 – Voltage and reactive power control	

NER Schedule 5.2 issue	Schedule 5.2 (Generators) – feedback on revised recommendations and relevant draft NER amendments
Voltage control at unit level and slow setpoint change	
Realignment of performance requirements to optimise power system performance over expected fault level (system impedance) range – Voltage control	
Materiality threshold on settling time error band and voltage settling time for reactive power and power factor setpoints	•
Clarification of when multiple modes of operation are required	–
Impact of a generating system on power system oscillation modes	
Definition – continuous uninterrupted operation	
Recognition of frequency response mode, inertial response and active power response to an angle jump	•

Schedule 5.3a Conditions for connection of MNSPs

Issue	Schedule 5.3a (HVDC links) – feedback on revised recommendations and relevant draft NER amendments
NER S5.3a.1a Introduction to the schedule	
Alignment of schedule with plant-type rather than registration category	
NER S5.3a.8 – Reactive power capability	
Reactive power	
NER S5.3a.13 – Market network service response to disturbances in the power system	
Voltage disturbances	
Frequency disturbances	
Fault ride through requirements	

Issue	Schedule 5.3a (HVDC links) – feedback on revised recommendations and relevant draft NER amendments
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NER S5.3a.4 – Monitoring and control requirements	
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Remote monitoring and protection against instability	
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New standards	
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Voltage control	
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Active power dispatch	
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Multiple Schedules

Issue	Multiple schedules – feedback on revised recommendations and relevant draft NER amendments
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NER Multiple clauses	
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References to superseded standards	
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NER structural amendments

Issue	NER structural amendments – feedback on revised recommendations and relevant draft NER amendments
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NER structural amendments	
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Drafting principles	
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Proposed approach	
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Consequential amendments

Issue	Consequential amendments – feedback on revised recommendations and relevant draft NER amendments
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Definitions	
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Definitions changes	
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Technical changes	
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Issue	Consequential amendments – feedback on revised recommendations and relevant draft NER amendments
Incorporating synchronous condensers	
Additions to information provision	
Relevant system – in relation to small plants exempt from some requirements	
S5.2.5.8 Over-frequency emergency generation reduction requirements	
S5.2.5.8 Protection settings and relationship to ride through clauses	
S5.2.5.8 Conditions for which the plant may trip and recording of conditions	
S5.2.5.8 Network Service Provider liability	
S5.2.5.11 Minimum operating level	
S5.2.5.11 Response direction for bidirectional units taking power from the system	
Drafting changes	
Drafting changes	

Confidentiality disclaimer

Under clause 5.2.6A(d)(2), AEMO is required to publish all submissions received about this Review on its website. Please identify any part of your submission that is confidential, which you do not wish to be published. Please note that if material identified as confidential cannot be shared and validated with other interested persons, then it may be accorded less weight in AEMO’s decision-making process than published material. AEMO prefers that submissions be forwarded in electronic format.