

23 August 2023

Australian Energy Market Operator (AEMO)

Lodge via email to: contact.connections@aemo.com.au

Subject: AEMO review of technical requirements for connection – Draft Recommendations Update Report (Part 1)

Amp Power Australia (Amp) welcomes the opportunity to make this submission in response to the Draft Recommendations Update Report (Part 1) - AEMO’s review of technical requirements for connection (NER clause 5.2.6A) consultation. The review is very important to the connection of new generation and large inverter-based load projects in the National Electricity Market (NEM) in the coming years.

Amp is global developer of flexible clean energy infrastructure. Headquarters in Canada, with operations across North America, Japan, India and Australia, our international team brings deep expertise and thought leadership to every aspect of the energy industry.

We build, own and operate clean energy assets both behind and in-front of the meter. Our strategy allow us to provide dispatchable, affordable and resilient clean power to enhance system reliability and security for our customers and the grid, including in Australia’s National Electricity Market (NEM): Hillston Solar Farm and Molong Solar Farm in New South Wales. We have a rapidly growing pipeline of new generation projects (solar, wind, BESS, hybrid) as well as green hydrogen projects under development across the NEM.

Amp believe the consultation is a great chance for the Industry to provide feedback to this important review and Amp is very keen to contribute to this process. We have worked closely with the CEC and believe our feedback is captured well in the CEC submission. Below are the additional points we would like to highlight for AEMO’s consideration.

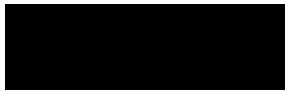
NER Schedule	Issue	Amp's feedback
S5.2.5.1	Treatment of reactive power capability considering temperature derating	The revised changes are generally welcomed. Regarding the three main variants for treatment of temperature derating, our view is that all three options have its own merits and hence the rule should be flexible to allow the most appropriate choice to be made at each location.
	Compensation of reactive power when units are out of service	The 0.5% requirement or any value should be properly assessed. By having 1 single value in the General requirements this may become an unnecessary barrier if it is not necessary for a particular connection point. Should this be a value but can be increased if an agreement can be reached with the NSP and AEMO?

S5.2.5.10	Requirements for stability protection on asynchronous generating systems	Based on our experience, there is no proven commercially available product which can automatically accurately detect oscillations and work out if a plant is contributing to the instability or not. A common technique which has been used in some produces (most still in trial phase) is comparing Q and V phase differences but that technique has been shown to be less accurate or even completely unreliable with medium to high sub-synchronous oscillation frequency range (above 10-15Hz). Therefore, the revised requirement should be further reviewed.
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We look forward to engaging further with AEMO at your convenience.

Should you have any questions or seek to follow up this submission at any time, please feel free to contact me at hnguyen@amp.energy.

Kind Regards,



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Head of Grid



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Amp Power Australia

