

Addendum to draft report Stakeholder feedback template:

AEMO Review of technical requirements for connection (NER 5.2.6A)

Stakeholders making a submission on the recommendations set out in the addendum to the draft report may use the below template to provide feedback. Feedback on the **addendum** is due to AEMO by **5:00 pm, 23 May 2023** (please note the earlier submission date for feedback on the primary draft report).

Please consider the confidentiality disclaimer at the end of this document.

Stakeholder: AGL Energy

Schedule 5.3 Conditions for Connection of Customers

Issue	Schedule 5.3 Recommendations
Policy positions	
Recognition of different load technologies	<p>AGL somewhat supports Option 2, to consider IBL requirements and general requirements for load separately, as we can appreciate that this may lead to better outcomes for the power system. However, some IBLs are quite small, and it may not always be appropriate to impose an additional performance burden on these IBLs. AGL suggests that AEMO consider including a MW size threshold for IBL to align small IBL with the general load requirements.</p> <p>AGL has typically supported the NER being technology neutral as an overarching principle, however we appreciate that as technologies develop, some flexibility may be required to achieve the best possible outcomes for the NEM and to encourage and incentivise innovation.</p>
Size and technology-based thresholds for ride through capability requirements	AGL would like more information on how dynamic load would be treated should thresholds be set before providing a view on the best policy approach.
Treatment of different load technologies within a load facility	AGL supports Option 2, as recommended by AEMO.
Continuous uninterrupted operation (CUO) requirements	<p>AGL strongly rejects Option 1, which would impose the NER definition of CUO on load connections, as the matters covered in (a)-(d) of the NER definition are simply not appropriate for loads.</p> <p>AGL supports Option 3, to apply a light-handed approach to CUO that excludes the requirement not to exacerbate or prolong the disturbance or cause a subsequent disturbance for other connected plant.</p> <p>The reason for our preference of Option 3 over the recommended Option 2 is because proving causation of which load connection, if any, exacerbated or prolonged a disturbance is difficult to definitively identify with currently available monitoring equipment. We suggest its preferable to leave this problematic requirement out of the NER until such time as reliable methods of detecting causation are available.</p> <p>Additionally, AGL notes that pumped hydro technology cannot meet an active power tolerance requirement, whether set as a percentage or as a MW limit. The NER must allow for technological limitations.</p>
Treatment of loads with uninterruptible power supplies	AGL has no views on this issue.
AEMO advisory matters	AGL has no views on this issue.

Issue	Schedule 5.3 Recommendations
New definitions – for use with ride-through requirements	
Single facility load	AGL has no views on this issue.
Large single facility load	AGL’s view is that if a “single facility load” is classified as a “large single facility IBL” because it contains multiple technology types with a large quantity of IBL, that any MAS ride through requirements imposed on that load be limited to the IBL MW quantity and not the entire MW quantity of the facility.
Large single facility inverter-based load	AGL supports Option 3, in keeping with the view stated in response to the first matter on page one that IBL under a certain MW threshold should not be subject to the same stringent requirements as larger IBL, given their lesser impact on the power system. AGL cautions that setting technical requirements higher than necessary, as a ‘nice to have’ rather than a ‘need to have’ poses a significant barrier to entry that when added up, will have the practical effect of slowing the energy transition.
New/amended clauses for ride-through requirements	
Operation of large loads during frequency disturbances	For both large single facility loads and IBL, where load is providing a service (e.g., PFR, FCAS, inertia), service provision must take precedence over the ride-through requirements. For large single facility loads, AGL supports Option 1, which is consistent with the characteristics and capability of non-inverter-based loads. For IBL (above a size threshold), AGL supports Option 4.
Operation of large loads during contingency events	AGL’s view is that the NER must differentiate between IBL and non-IBL, to reflect the different capabilities of these technologies. In addition, and as stated in response to the new definition of “large single facility load” above, any requirements placed on a facility must only place higher obligations on the IBL proportion of the overall facility.
Operation of large loads during voltage disturbances	AGL’s view is as above.
NER S5.3.3 – protection systems and settings	
Link to ‘ride through’ requirements and maximising protection	AGL supports Option 2, noting that where load is providing a service (e.g., PFR, FCAS, inertia), service provision takes precedence over the requirement to comply with S5.3.3 obligations.
NER S5.3.10 – Load shedding facilities	
Emergency Under-frequency ramp down of large loads	AGL supports Option 2, allowing load to remain connected where alternative options to ramp down are agreed. We suggest that any ramping requirements specify the load must ramp down proportionally.
New clause for instability monitoring and prevention	
Stability of IBL – monitoring, protection and performance	AGL does not support Option 2. AGL supports Options 3 and 7, as sensible, proportionate actions. AGL does not support Options 4, 5 and 6. Firstly, despite the references AEMO has provided to the Efficient Management of System Strength on the Power System rule and the system strength impact assessment guidelines, our practical experience is that the meaning of “instability” is not always clear. Secondly, and as we have mentioned elsewhere in our feedback, detection devices that can determine a facility’s contribution to an instability are not yet widely available and this remains an emerging area. The NER should keep pace with such developments, but not precede them. AGL’s view is that Option 8 be considered separately, rather than having oscillations bundled as part of “stability”.

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.