



Clean Energy Council submission to the Power and Water Corporation's draft grid connection requirements for embedded generation

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback on the Power and Water Corporation's draft grid connection requirements for embedded generation.

The Clean Energy Council is the peak body for the clean energy industry in Australia. We represent and work with Australia's leading renewable energy and energy storage businesses, as well as rooftop solar installers, to further the development of clean energy in Australia. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

We strongly encourage Power and Water Corporation to ensure that its grid connection rules align with the relevant Australian Standards wherever possible. We urge you to reconsider the draft connection requirements' specification of export limits in kVA and the application of ramp rate requirements to charging of batteries.

We are grateful for the consultation that Power and Water Corporation has undertaken with members of the CEC and we would be happy to discuss these issues in further detail with you.

Alignment with Australian Standards

1. Use of kVA versus kW

The export limits in the embedded generation (EG) connection requirements should be specified in kW.

The draft Power and Water Corporation EG connection requirements specify export limits in kVA. The revised version of AS/NZS 4777.2 (which we anticipate could be finalised as early as December 2020) will use kW when specifying export limits.

Specifying export limits in kVA could cause unnecessary curtailment of generation when the grid voltage is low due to the inverter needing to supply kvars to the grid.

2. Application of ramp rate requirements to charging of batteries

The draft EG connection requirements apply a ramp rate to charging and discharging of batteries. The draft of AS/NZS 4777.2:2020 only refers to ramp rates for energy output (i.e. discharging of batteries). It is unlikely that makes and models of inverters available on the Australian market will be able to meet the proposed ramp rate requirement for discharging batteries. In the absence of a standard against which the inverter can be tested it would be problematic for the Clean Energy Council to list inverters with the required ramp rate for discharge on its Approved Product List. It would not be fair or even feasible to make installers responsible for assessing the capability of the inverters they install.

The ramp rate proposed is outside of the usual value. Even if inverters with the required capability become available, it is likely that the ramp rate would need to be set by the installer.

The CEC encourages distribution network service providers (DNSPs) to use inverter settings specified in Australian standards wherever possible. By setting grid connection rules that require installers to make bespoke adjustments there is a risk of non-compliance and a need for inspection.