



Clean Energy Council submission to the Essential Services Commission's Draft Decision on the Electricity Distribution Code review – Technical standards

The Clean Energy Council (CEC) welcomes the opportunity to provide feedback on the Draft Decision of the Essential Services Commission (ESC) on the Electricity Distribution Code review – Technical standards.

The CEC is the peak body for the clean energy industry in Australia. We represent and work with hundreds of leading businesses operating in solar, wind, hydro, bioenergy, geothermal energy, energy storage and energy efficiency along with more than 6,500 solar installers. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

The CEC welcomes the proposal to utilise the statistically based approach to voltage standards in the code, while retaining existing customer protections. We support the proposals to harmonise Victorian standards with the National Electricity Rules.

The CEC strongly supports the proposal to introduce new obligations for distribution businesses to report on how they are using smart meter technology. The proposed reporting framework has the potential to enhance customer protection, improve the management and operation of the distribution system and assist with the integration of distributed energy resources (DER) on the network. We have provided feedback on the potential uses of smart meter data and the format in which it should be provided in order to support the proposed uses. Customers should be able to request voltage data from their distribution network service provider (DNSP) to enable them to compare the voltage at their connection point with the voltage elsewhere on the network and with the regulated (Guideline 11) requirements. We also recommend an annual public reporting framework that would provide data to assist regulators, policy makers and DER and technology suppliers. The public reporting should measure performance against the proposed V1%, V50% and V99% values, and should apply to three representative feeders per zone substation. Data should be presented on daylight and night periods and by season.

We would be very happy to discuss these issues in further detail with representatives of the Essential Services Commission and the Victorian Government. We look forward to contributing further to this important area for policy development.

1. Voltage standards

The CEC strongly supports the proposal to utilise the statistically based approach to voltage standards in the code by adopting the equivalent Australian Standards (AS 61000.3.100) for low voltage parts of the network. As noted in the draft decision, this approach aligns with industry best practice, the regulatory approach used in most other jurisdictions and other initiatives such as the voltage response measures proposed by the Australian Energy Market Operator (AEMO).

The retention of a modified version of the existing fixed voltage limits of the code for the purposes of customer compensation will ensure that customers are not disadvantaged by the proposed changes. We support the proposal to increase the upper and lower voltage limit to +13% and -10% (from +10% and -6% respectively) in order to align with voltage parameters set out in the revised basic connection agreements proposed by distribution businesses and approved by the Australian Energy Regulator (AER), with measures proposed by AEMO and the smart inverter feature requirements being promoted as part of the Solar Homes program.

2. Harmonising Victorian standards with the National Electricity Rules

The CEC supports the proposals to harmonise Victorian standards with the National Electricity Rules with respect to voltage harmonics, power factor and negative sequence voltage. We support the proposal to update the definition of a 'generating unit' to be technology neutral so that it can account for generation technologies such as solar PV and battery storage. We support the proposal to avoid unnecessary duplication by aligning Victorian requirements for distribution businesses to maintain a register of embedded generators with AEMO's proposed DER Register.

3. New reporting framework for use of smart meter technology

The CEC strongly supports the proposal to introduce new reporting requirements for distribution businesses to report on how they are using smart meter technology. The proposed reporting framework has the potential to significantly enhance customer protection, improve the management and operation of the distribution system and assist with the integration of DER on the network. We agree that there are opportunities to explore and leverage the capabilities of smart meter technology. The proposed reporting framework will enable better customer service, better regulation and will enable industry to work with distribution businesses to improve network management for the benefit of all consumers.

4. The type of public information that would be useful

The draft decision requests stakeholder feedback on the types of information that would be useful under the proposed reporting requirements for distribution businesses' use of smart meter technology.

In determining what type of information would be useful it is helpful to consider who would be the user of the information and the likely use to which the information would be put. Table 1 (below) summarises the likely main users of the smart meter data, the purposes to which the data might be put, and the type of information needed to satisfy the anticipated user needs.

Table 1 – Potential users of smart meter data and format in which data is required

Users	Anticipated purposes	Recommended content, format	Scope, availability and regularity
Customers	Enable customers to assess performance of distribution business and understand eligibility for compensation.	In a standardised format that shows compliance with voltage on the connection point with comparisons to their local low voltage network, the DNSP's entire network and the regulated (Guideline 11) requirements.	Available on request for the customer's connection point. Confidential because it is unique to the customer.
Regulators	Assess performance of distribution businesses against regulatory requirements.	Reporting of V1%, V50% and V99% for 3 feeders per zone substation – for the shortest, longest and a median feeder. Split reporting into day (e.g. 6am to 6pm) and night periods and by season (summer, autumn, winter, spring).	Publicly reported on an annual basis. Not confidential. Aggregated data.
Policy makers	Learn lessons to improve policy making. Policy makers in other jurisdictions will potentially be the major beneficiaries	How smart meter technology is being used to support life support customers, demand management initiatives and network reliability initiatives. Reporting of V1%, V50% and V99% for 3 feeders per zone substation – for the shortest, longest and a median feeder. Split reporting into day and night periods and by season.	Publicly reported on an annual basis. Not confidential. Aggregated data.
DER and technology suppliers	Help businesses identify commercial opportunities to assist with relieving congestion or avoiding need for network upgrades.	Reporting of V1%, V50% and V99% for 3 feeders per zone substation – for the shortest, longest and a median feeder. Split reporting into day and night periods and by season.	Publicly reported on an annual basis. Not confidential. Aggregated data.

The proposed reporting framework has the potential to significantly improve management and integration of DER on the distribution network and will enable the industry to work more closely with distribution businesses by identifying where investment in voltage management initiatives would assist with management and operation of the distribution system. To be most useful the voltage reporting for regulators, policy makers and industry should have the following characteristics:

- It should be aggregated and publicly available, so that it can be used to inform analysis for policy making, regulation and guiding investment
- It should report V1%, V50% and V99% values, in line with the new statistically based approach to voltage standards. This will assist with identifying where voltage management issues are being experienced.
- It should apply to three representative feeders per zone substation – the shortest feeder, the longest feeder and one of median length. This will assist with diagnosing the voltage management issues.
- Data should be presented on daylight (e.g. 6am to 6pm) and night (e.g. 6pm to 6am) periods and by season (e.g. summer, autumn, winter and spring). This will assist with diagnosing the possible cause of voltage rise issues, including the day-night variation in solar generation and seasonal variation in load and solar generation.