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The Clean Energy Council (CEC) welcomes the opportunity to provide feedback to the Victorian Department of Energy, Environment and Climate Change (DEECA) Consultation Paper, Victoria's Emergency Backstop mechanism.

The CEC 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 accredited designers and installers of solar and battery systems, 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 support the Victorian Government's *Harness DER Roadmap* that sets out how the Victorian Government will support consumer energy resources achieve the State's decarbonisation ambitions while simultaneously assist Victorian consumers save money through control of their energy.

The CEC understands the need for a genuine last resort emergency backstop mechanism for possible future minimum demand events to ensure the reliability of the system. In providing feedback to the Consultation Paper, we have used the following principles, which we believe will ensure consumers are encouraged to continue to take up rooftop solar and storage solutions to lower their energy bills and be rewarded for their active participation in supporting wider system needs while managing the system at least cost with respect to possible minimum demand events:

- **National consistency:** As Australia is a relatively small market, national consistency is a key criterion in keeping industry implementation and on-going management costs as low as possible;
- **Interoperability:** this should be a core driver to ensure consumers can switch service providers without any constraints or additional costs;
- **Consumer empowerment:** encourage industry to innovate and drive service improvements based on consumer preferences on how they would like to use their rooftop solar and storage assets, as well as ensuring consumers are rewarded to use their energy as flexibly as possible, and industry only take control of consumer energy resources as a genuine last resort emergency situation.

Based on these principles, CEC generally supports the thrust of the Consultation Paper. Specifically, we support the proposal to align with the South Australian flexible export arrangements and the use of CSIP-Aus as the communication protocol.

We also note the Consultation Paper acknowledges and outlines a range of other options (for example, figure 4) will be used before the emergency backstop mechanism is actioned to ensure impacts to consumers are minimal because it is only ever used as a last resort. AEMO modelling suggests that the proposed emergency backstop may be needed for as little as 12-19 hours per year for the period between 2025-2027.

In the near future, CEC believes that a combination of storage, pricing and dynamic operating envelopes for solar PV will be the leading solutions to addressing minimum demand conditions. As a result, CEC believes clearly defining an emergency backstop response with appropriate guard rails as to when it will be triggered will better complement these market-based solutions. Further, such an approach is consistent with the arrangements for large scale load shedding. The use of arrangement like Lack of Reserve (in this case, Demand) warnings can provide signals to the market to respond to a minimum demand event and potentially avoid triggering an emergency backstop response.

This can also be supported with improved AEMO and network planning, as well as forecast information and a potential cap on maximum hours per annum the emergency backstop arrangement can be used. DEECA can set the cap for the next three years based on the AEMO forecast as outlined in the Consultation Paper.

Defining, setting guardrails and improving market information on minimum demand events will assist to better integrate emergency backstop mechanism with the other market-based options. Specially, it should provide certainty to market participants who offer solutions that reward consumers to shift and/or store energy that they can confidently provide their services to market without the risk of the emergency backstop mechanism impairing them through increasing use of the arrangement over time. This will ensure the emergency backstop mechanism is truly a last resort approach and complements market-based solutions.

Importantly, we would encourage DEECA to work with AEMO and industry to develop a definition, guardrails and information provision arrangements that can be leveraged by other states with a current emergency backstop mechanism or seeking to implement one. A national approach for small scale emergency backstop mechanisms with clear arrangements as to when it applies is consistent with how large-scale load shedding arrangements operate.

The Consultation Paper seeks feedback on the most cost-effective way to implement the arrangements and specially seeks feedback on the use of CSIP-Aus as the communication protocol given the use of the protocol in other jurisdictions, such as South Australia. The CEC supports aligning with South Australia and using CSIP-Aus. Many of our members have adopted and are familiar with this protocol as a result of preparing for the commencement of flexible export arrangements in South Australia. Alignment will assist with minimising implementation costs as well

as meeting a July 2024 requirement for new and replacement solar system smaller than 200kW being CSIP-Aus compliant in Victoria.

To ensure this objective is met, the CEC also recommends the final emergency backstop mechanism provide more clarity to Victorian network businesses on the need to implement testing procedures and network interfaces that align to or are sufficiently like South Australia Power Network's approach. This will allow to 'fast track' inverters already tested and approved as per the CEC's [Inverters with Software Communication Clients](#).

Ensuring alignment with the South Australian arrangements for product testing and approval will also assist with taking the pressure off installers coming up to speed with the new requirements. Specifically, it will allow industry to pre-emptively develop educational material to support installers for July 2024 commencement.

Finally, we recommend that the DEECA build in a trigger to review the emergency backstop arrangements. The review should aim to be completed by mid-2027. This will allow to assess the appropriateness of the arrangement, especially as the DER market and associated services is rapidly developing and scaling. This will ensure any emergency backstop arrangements keeps pace with market developments post 2027.

The remainder of the submission provides specific comments on the questions in the Consultation Paper.

***1. Do you understand the reasoning behind the proposal to implement an emergency backstop mechanism in Victoria to manage the risks of minimum system load? If not, please suggest where you would like more information.***

Yes. Noting our comments above on how the final emergency backstop mechanism arrangement can be tailored to make it clear on why, when and how it will be used with respect to the other options outlined in the Consultation Paper that can provide a more consumer orientated friendly response.

***2. Are you clear on the scope and the timelines of the emergency backstop mechanism? Please specify where you would like more clarity.***

Yes. However, it is important that the backstop mechanism includes appropriate safeguards to maintain consumer and industry confidence in the future role of rooftop solar and storage. Also, noting the need to align with the South Australian approach to rolling out CSIP-Aus as part of implementing flexible export arrangements. This alignment is critical for ensuring the timely and compliant introduction of the Victorian emergency backstop arrangement.

**3. Are there scenarios where new and replacement rooftop solar systems should be exempt from complying with the emergency backstop requirement? For example, an inverter replaced under warranty. Please provide specific examples.**

THE CEC proposes that existing systems replaced under warranty or insurance should not be required to be compliant with CSIP-Aus unless the customer requests an upgrade to the inverter being replaced. Specifically, the CEC believes under this approach the following outcomes:

- Inverter from before emergency backstop requirements is replaced under warranty or insurance - no emergency backstop requirements (regardless of whether it has the capability)
- Inverter is replaced by a larger (or multiple mode) inverter at customer's request - this is an alteration and despite existing connection agreement, this inverter should have emergency backstop capability.

**4. What do you think is the most appropriate technology to implement an emergency backstop mechanism for ≤200kW systems? Please specify key benefits and challenges.**

CEC supports the CSIP-Aus technology as it features 2-way communication and can do much more than just the emergency backstop function such as communications for ancillary services, confirmation that a command has been actioned and execution of dynamic operating envelope commands. It is also worth noting that when communications falls out, inverters can revert to static limits.

It is also worth noting our comments above around ensuring consistency with South Australia Power Network's testing procedures for implementing CSIP-Aus.

**5. Do you have any concerns or suggestions regarding using an internet-based technology to communicate with rooftop solar systems?**

CEC believes internet-based technology is likely to be the most common and least cost approach used. However, we note there might be circumstances that it may not work consistently or be available, especially for those socio-economic households where solar installations can make a significant difference in managing energy costs. We would encourage DEECA to consider government assistance/ program to enable connectivity for such households. For example, the Solar Battery program may contain an upfront 'free-of charge or upgrade' connectivity aspect for qualifying households.

**6. What mitigating measures, safeguards and 'fallback' limits would you recommend to manage the loss of internet connectivity?**

CEC recommends the strongest and most reliable communication method should be chosen for each site. In most cases this will be a direct internet connection, but other methods such as wifi and cellular are likely to also be used.

Cellular technology improves quickly, and often older versions are removed, such as 3G. To avoid this in remote sites, it may be possible to use RF transmission of data between a MODEM and an inverter some distance away (tens of kms depending on obstacles). This would avoid the inevitable obsolescence of certain cellular systems requiring communications be upgraded due to obsolete technology.

It is also worth noting that when connectivity is lost for a period, inverters will ramp back to static limits as nominated by the distribution businesses. Hence, the CEC recommends that distribution businesses should be required to undertake operational monitoring of compliance of solar PV units with CSIP-Aus capability and should notify consumers when non-compliance or loss of connection is detected.

***7. What is your view on supply chain readiness to implement emergency backstop mechanism for rooftop solar systems (up to 200kW (inverter capacity)) by 1 July 2024?***

As noted above, aligning to systems and protocols as used in South Australia's CSIP-Aus requirements will provide the best opportunity to comply with 1 July 2024 implementation.

***8. What information will installers, distribution businesses and consumers need to understand the proposed changes?***

Installers will need to know what components they can quote, what additional equipment is required and how to install and how to comply with distribution businesses' commissioning requirements, including establishing connectivity between the device and the distribution businesses' server.

Consumers will need to understand what CSIP-Aus is and why it is required and the impact of an emergency backstop trigger on their ability to self-consume, export or import. Consumers will also need information on the importance of maintaining connectivity and whether there is any ability to 'opt out' and what that means.

***9. How much forward notice will installers and distribution businesses need to implement the new requirements.***

Refer to previous comments.

**10. What information can the Victorian Government provide to assist installers and distribution businesses to communicate the new requirements to consumers? Please provide specific examples.**

We encourage DEECA to establish a Working Group of distribution businesses, those representing installers and departmental representatives. The Working Group should be charged with the type of communication; and the communication channels to provide the information by each industry participant. This will ensure communication provision to consumers is co-ordinated and everyone is using the same language. The Department can stand such a Working Group as it works through finalising the backstop mechanism so the communication program can commence following the final framework announcement.

**11. What is the best way to ensure that rooftop solar systems with emergency backstop functionality are commissioned correctly at installation stage and continue to maintain a connection over the lifetime of the system?**

As previously stated, the CEC believes distribution businesses' servers should ping the device to confirm communication is live. If it is established that communication has been lost, the distribution business should remind the consumer of the loss of benefits while communication is down.

Kind regards,

A handwritten signature in black ink that reads "Christodoulidis". The script is cursive and fluid, with the first letter 'C' being significantly larger and more stylized than the rest of the name.

Con Hristodoulidis  
Policy Director, Distributed Energy