

7th March 2025

Department of Climate Change,  
Energy, the Environment and Water  
Locked Bag 5022  
Parramatta NSW 2124

RE: NSW Emergency Backstop Mechanism and Consumer Energy Resources Installer Portal

Dear Mr Anthony Lean,

Thank you for the opportunity to provide feedback on the Department of Climate Change, Energy, the Environment and Water (DCCEEW) consultation paper regarding the 'NSW Emergency Backstop Mechanism and Consumer Energy Resources Installer Portal.' This feedback is in response to the Australian Energy Market Operator's (AEMO) advice on the necessity of introducing an Emergency Backstop Mechanism to flexibly manage solar exports.

Landis+Gyr is eager to further contribute to the DCCEEW consultation process. In summary, smart meters can be effectively utilised to establish a robust Emergency Backstop Mechanism, considering our responses provided herein.

Landis+Gyr is a global organisation that has been operating for over 120 years and has a local presence in more than 30 countries. It has deployed over 300 million meters worldwide, positioning itself as a leading provider of integrated energy management solutions for the utility sector. Landis+Gyr is recognised as a global industry leader in energy measurement solutions and advanced meter management, offering a broad portfolio in the market. The company delivers innovative and flexible solutions to help utilities address challenges in smart metering across electricity, gas, and water, as well as grid edge intelligence and smart infrastructure. With approximately 6,000 employees across five continents with annual sales of USD 1.9 billion, Landis+Gyr focuses on helping the world better manage energy. Landis+Gyr considers Australia as one of its key markets and aims to support future industry needs through innovation, value-add, and reliable products and services, with a focus on reducing costs. Landis+Gyr provides metering solutions into the Australian market, with a variety of technologies that are leveraged by customers today to manage flexible generation and loads that deliver cost savings to consumers. Landis+Gyr is working with its customers to support the challenges arising from the energy transition. They consider initiatives such as an Emergency Backstop Mechanism as paramount to ensuring changes in energy sources are managed appropriately to maintain the reliability and security of Australia's energy network. Landis+Gyr broadly supports an industry consultation along with relevant workshops to ensure an outcome that delivers the intended value to consumers, whilst leveraging existing standards and devices associated with CER and interoperability.

Yours sincerely,

[Redacted Signature]

Regards,

[Redacted Name]  
[Redacted Title]

Landis+Gyr

## Response to consultation paper questions

**Question 1 - Do you support the requirement for NSW DNSPs to harmonise their implementation of the backstop mechanism? If not, please explain why.**

Yes, we support the implementation of a harmonised emergency backstop as a control mechanism of last resort. This measure will enhance network resilience, thereby improving system reliability and security.

We highly recommend that the DCCEEW evaluate the capabilities of smart meters to monitor and ensure compliance with such an emergency backstop. In New South Wales, smart meters are mandatory under the 'Power of Choice'<sup>1</sup> rule change by the AEMC. This rollout is currently underway and required to be completed by 2030 as part of the 'Accelerating Smart Meter Deployments'<sup>2</sup> initiative.

Currently, many smart meter manufacturers offer various metering solutions that can measure and control a consumer's general supply (Light and Power tariff) independently from their flexible generation (e.g. rooftop solar) and flexible load (e.g. electric hot water). One example is a multi-element smart meter, as illustrated in Figure 1: Multi-element smart meter. This configuration meets the smart meter requirements<sup>3</sup> of South Australia and designed to address their minimum demand challenges by curtailing solar generation.

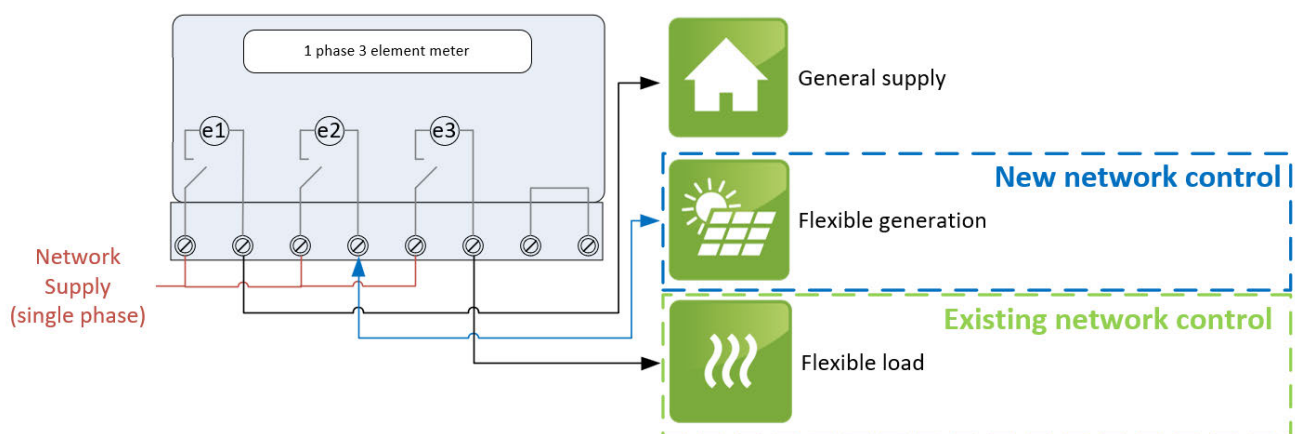


Figure 1: Multi-element smart meter

This metering configuration offers the necessary visibility of the 'in scope' capacity of solar systems and provides a control mechanism of 'last resort' if solar inverters fail to respond to CISP-AUS commands sent via the internet, which relies entirely on the availability of the consumer's Wi-Fi. However, Chapter 7 of the National Electricity Rules<sup>4</sup>, Type 4 meters shall support remote communications, therefore enabling the remote operation of meter relays connected to consumer energy resources (CER) if wired as shown in Figure 1: Multi-element smart meter

Ausgrid and Endeavour Energy both offer off-peak tariffs for electric hot water (flexible load) through relays integrated within smart meters. According to the Ausgrid Network Price Guide ES7<sup>5</sup>, these load control relays

<sup>1</sup> [Expanding competition in metering and related services | AEMC](#)

<sup>2</sup> [Accelerating smart meter deployment | AEMC](#)

<sup>3</sup> [Smart Meter Minimum Technical Standard and associated Deemed to Comply Wiring Arrangements](#)

<sup>4</sup> [NER Chapter 7: Metering - AEMC Energy Rules](#)

<sup>5</sup> [ES7-Network-Price-Guide.pdf](#)

can be operated remotely upon request, with an expected outcome of 80% of connected relays responding within 5 minutes. Smart meters already use secure communications for acquiring daily billing data, which is independent of the internet and consumer Wi-Fi. This secure communication path could be leveraged to provide a far more reliable link to the meter relay, rather than relying on consumer Wi-Fi, for the purpose of a 'critical last-resort tool' to keep the power system secure under emergency conditions.

**Question 2 - Are the scope and timelines for the emergency backstop mechanism feasible? If not, please explain why.**

The timelines might be considered quite aggressive if the expectation is for implementation by Spring 2025, given that responses to the consultation paper are only due in Autumn 2025.

If smart meters are to become part of the Emergency Backstop Mechanism, manufacturers will need to provide order and production ramp-up lead times to support their customers. Additionally, Metering Coordinators will need to address any changes resourcing, logistics, documentation, and training. Therefore, they are in a better position to respond to this question.

**Question 3 – Do you agree with the order of the hierarchy of measures to increase operational load in the grid during MSL events? If not, please explain why.**

The hierarchy order seems appropriate, as electric hot water is already controllable by smart meters on premises when a Power of Choice smart meter installed, and an off-peak tariff is applied. Additionally, ensuring these loads are wired from a smart meter relay, as shown in Figure 1: Multi-element smart meter, could further increase the controllable load.

Solar export curtailment can currently be executed by CSIP-AUS enabled solar inverters. However, if the consumer's internet is unavailable, a smart meter wired as shown in Figure 1: Multi-element smart meter could provide a high-yield solar disconnection when the Emergency Backstop Mechanism is required. This setup could also potentially extend to non-CSIP-AUS inverters when the smart meter is upgraded.

**Question 4 – Are the design elements of the backstop mechanisms appropriate and feasible? If not, please identify why and provide any alternative suggestions.**

For flexible solar curtailment, CSIP-AUS enabled inverters can execute the required response when instructed. However, as mentioned in the response to Question 1, a smart meter would provide a superior outcome compared to an emergency backstop request, especially if a proven and measurable response is a key success criterion.

**Question 5 – Are the roles and responsibilities of each organisation appropriate and feasible? If not, please explain why and provide any alternative suggestions.**

There appears to be an assumption that the emergency backstop can only be achieved through solar inverters. In New South Wales, retailers are responsible for smart meters, while the metering coordinator handles the



meter installation. If smart meters are considered a potential option, retailers and metering coordinators may wish to respond accordingly and be considered for a role in executing the Emergency Backstop Mechanism.

**Question 6** - Do you support the threshold for backstop mechanism using CSIP-AUS being 200kW and smaller? If not, please provide detail on what threshold you think is appropriate.

- I. Do you agree with the approach for systems above 200kW? If not, please explain why and provide any alternative suggestions.

We won't comment on the selected threshold, but we can confirm that smart meters available under the Power of Choice initiative (which includes NSW) have load control relays capable of switching at least 25A loads<sup>6</sup>. These relays can also be connected to external contactors capable of switching 200kW. Consideration would need to be given to how such a contactor is supplied.

**Question 7** - Do you have any concerns or insights into using CSIP-AUS compatible inverters and an internet connection to control the backstop mechanism?

The ability for CSIP-AUS to execute flexible solar curtailment as a first measure should achieve some level of outcome. However, the dependency on consumers' internet to deliver an Emergency Backstop Mechanism should be closely reviewed, such as performance reports from other jurisdictions that also execute solar curtailment via CSIP-AUS.

Smart meter by design uses independent secure communications for the daily acquisition of billing data. This highly reliable connection should be leveraged for the execution of an Emergency Backstop Mechanism. Since responses can also be validated from the NMI certified metrology circuits when a site is wired as per Figure 1: Multi-element smart meter.

The ability of CSIP-AUS to execute flexible solar curtailment as a first measure should achieve some level of outcome. However, the reliance on consumers' internet for delivering an Emergency Backstop Mechanism should be closely reviewed, including performance reports from other jurisdictions that also use CSIP-AUS for solar curtailment.

Smart meters, by design, use independent secure communications for the daily acquisition of billing data. This highly reliable connection should be leveraged for executing an Emergency Backstop Mechanism. Responses can also be validated from the NMI-certified metrology circuits when a site is wired as shown in Figure 1: Multi-element smart meter

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<sup>6</sup> [ES7-Network-Price-Guide.pdf](#)

**Question 8** – Is it appropriate for the emergency backstop mechanism to be implemented using technologies and systems consistent with enabling the future use of flexible export limits? If not, please explain why.

CSIP-AUS could be utilised for future flexible export limits, offering a fairer outcome for consumers and their own CER. To ensure high performance levels, smart meters could also be leveraged to provide a higher yield of instructions reaching CSIP-AUS enabled solar inverters.

**Question 9** – Which, if any, existing test protocols should be considered for implementation as the consistent test protocol for NSW?

The DCCEEW should also engage in the AEMC's consultation on real-time data for consumers<sup>7</sup>, which is currently working towards standardising protocols for smart meters to provide solar inverters with power quality data. As the DCCEEW aims to harmonise an Emergency Backstop Mechanism, it should also focus on harmonising with real-time data for consumers, facilitating interactions between inverters and smart meters.

**Question 10** – Do you think the conditions under which the emergency backstop mechanism could be used are appropriate? If not, why? Please suggest any alternative conditions that should be considered.

In addition to the conditions of use outlined in Ausgrid's load control requirements<sup>8</sup>, smart meter load control relays can be programmed to operate on a pre-configured schedule. These relays will automatically close after a set period, independent of communications, which can assist the network during restart conditions.

**Question 11** – Do you have any views on the proposed implementation pathway (variation of DNSP licencing condittions)?

Consideration should be given to smart meters to enhance the robustness of the Emergency Backstop Mechanism. CISP-AUS enabled inverters can only be controlled when the consumer's internet connection is available, which lacks service level guarantees. In contrast, smart meters are required to deliver daily billing data with service levels exceeding 98%<sup>9</sup>. This reliable communication link ensures high responsiveness that can be validated when sites are wired according to Figure 1: Multi-element smart meter

This wiring configuration can also provide more NMI certified measurements of actual generation available of curtailment ahead of time, including actual contribution (net) to the network. Which could enable a more targeted Emergency Backstop Mechanism that targets larger amounts of solar generation entering the grid ahead of consumers that are self-consuming all their present solar generation.

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<sup>7</sup> [Real-time data for consumers | AEMC](#)

<sup>8</sup> [ES7-Network-Price-Guide.pdf](#)

<sup>9</sup> [service-level-procedure-mdp-services-v24.pdf](#)

**Question 12** – What information will manufacturers, installers, customers and distribution networks require to understand the changes to implement the backstop mechanism?

- I. Who is best placed to communicate this information to the different audiences?
- II. How should this information be best communicated to the different audiences?

Public consultations like this one are valuable for communicating information to industry stakeholders. We will leave it to stakeholders with direct relationships with consumers and their installers to determine the best communication methods for different audiences.

**Question 13** – What CER should the NSW CER Installer Portal capture? Please explain the reasoning behind your answers.

- I. What types of technology?
- II. What size (capacity) of technology?
- III. What technology should be excluded? Why?
- IV. Should the Portal align with the Emergency Backstop Mechanism in capturing only systems under 200kW?
- V. Should the Portal capture technology consistent with that recorded in AEMO's DER register? Is there additional technology that should be captured?

We will let the relevant stakeholders respond to this question.

**Question 14** – Do you support the functions outlined for inclusion in the CER Installer Portal? If not, please explain why.

If smart meters are allowed to execute the Emergency Backstop Mechanism, the portal should be designed to capture the relevant smart meter attributes where necessary. The SAPN SmartInstall portal could specify any required fields, as smart meters are already part of the solar curtailment solution in South Australia<sup>10</sup>.

**Question 15** – Are there any additional functions you would like to see included within a CER Installer Portal?

As per response to Question 14. smart meters should be considered as option to execute the Emergency Backstop Mechanism.

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<sup>10</sup> [Smart Meter Minimum Technical Standard and associated Deemed to Comply Wiring Arrangements](#)

**Question 16 – Are there additional ways that the Portal should be designed to support installers?**

We will let the relevant stakeholders respond to this question.

**Question 17 – Do you agree that the party that applies for a CER connection should be responsible for ensuring the installers they have engaged rectify non-compliance? If not, please explain why.**

Consideration should be given for the inclusion of Smart meters when they are delivering the Emergency Backstop Mechanism. The solar curtailment in solution in South Australia could provide an appropriate reference of how this can be implemented. Considering the CER installer will likely not be the smart meter installer.

**Question 18 – Do you have any other views on compliance and enforcement within the Portal?**

We will let the relevant stakeholders respond to this question. However, the smart meter when installed as per Figure 1: Multi-element smart meter can provide ongoing compliance monitoring and enforcement post installation. Which would ensure a robust Emergency Backstop Mechanism is available when required.

We suggest the DCCEEW reviews the performance reports from other jurisdictions that have implemented CER control mechanisms that have a dependency on the consumers internet or third-party installers to connect a controlling device<sup>11</sup> that cannot be monitored remotely for conformance without metering such as Figure 1: Multi-element smart meter.

**Question 19 – Are there additional ways that the Portal should be designed to support installers?**

We will let the relevant stakeholders respond to this question.

**Question 20 – Do you agree with the phased approach proposed for the delivery of the Portal? If not, please explain why.**

We will let the relevant stakeholders respond to this question.

**Question 21 – Do you think that there are any functions that should be included or excluded from the first phase of the Portal development?**

We will let the relevant stakeholders respond to this question.

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<sup>11</sup> [Queensland Electricity Connection Manual Version 4 - 2912908](#)

**Question 22** – Do you support the proposed joint NSW Government-DNSP delivery of the CER Installer Portal? If not, please explain why.

We will let the relevant stakeholders respond to this question.

**Question 23** – What information will installers and any other stakeholders require to support the roll out of the CER Installer Portal?

- I. Who is best placed to provide this information?
- II. What are the best ways of communicating this information to stakeholders?

We will let the relevant stakeholders respond to this question.

Our focus is on providing leading technology and energy management solutions with advanced features, aligned with a vision to support future industry requirements. We always welcome the opportunity to collaborate with participants and stakeholders to understand their long-term needs, which inform our product roadmap. Accordingly, we are excited to contribute to this consultation.

Landis+Gyr is keen to support this process to help achieve the best possible outcomes for customers. Thank you for the opportunity to provide this information. We look forward to assisting you with any further questions you may have. In the meantime, please do not hesitate to contact [REDACTED]