

# ***Solar Emergency Backstop Mechanism***

NSW

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**Matt Duncan & Georgia Holmes**

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**7 March 2025**

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Master Electricians Australia (MEA) is a peak industry association representing electrical contractors and is recognised by industry, government and the community as a leading business partner, knowledge source and advocate. You can visit our website at [www.masterelectricians.com.au](http://www.masterelectricians.com.au)

It is essential for the NSW Government to address the grid energy reliability concerns related to Consumer Energy Resources (CER) by tackling the root cause - the insufficient integration of storage assets into the system. While the Emergency Backstop Mechanism (EBM) is a commendable interim solution to prevent grid blackouts, MEA believes the government should focus on long-term solutions, such as increasing storage capacity in the grid through grid scale batteries, neighbourhood/community batteries and helping to subsidise CER in the form of small-scale behind the meter batteries and EV bi-directional chargers. This approach will provide a sustainable solution as households and businesses continue to install solar across the State.

MEA supports the Common Smart Inverter Profile – Australia (CSIP-Australia), a process that streamlines administrative procedures for installers and ensures consistency across NSW DNSPs.

## Emergency Backstop Mechanism (EBM)

### MEA's Position on EBM

MEA is concerned that policies such as the EBM unfairly penalise energy customers who have installed CER in line with government direction.

Although the EBM does not affect pre-stored battery energy, step 3 of the proposed hierarchy (page 21) prevents consumers from generating additional solar power. This leaves costly assets idle and increases energy expenses as consumers are forced to rely on grid energy that they could otherwise generate for free.

Over time, the EBM could become prone to overuse as more households and businesses install solar panels, potentially eroding consumer confidence in CER. This erosion may discourage further investment, as the EBM fails to address the core issue of infrastructure capacity.

MEA seeks to ensure that NSW's EBM curtails solar exports to zero during activation, rather than shutting down systems entirely. This approach would allow households and businesses to continue generating and using solar energy on site, while stabilising the grid by reducing constraints on solar hosting capacity.

## Implementation

### Design Elements – Internet Connection Communication Concerns

MEA notes that the consultation paper identifies DNSPs as the responsible entity for the communication network design element (page 22). We seek clarification on the communication method to be used, given the variety of available options. For example, in Queensland, DNSPs manage communication via Audio Frequency Load Control (AFLC) over the network's powerlines, which we consider the least desirable approach. In contrast, other jurisdictions utilise internal infrastructure, which may offer a more effective alternative while placing some responsibility on consumers (e.g., if they change their Wi-Fi router or password).

MEA further notes that some energy consumers may not have access to Wi-Fi or, as is common in rural and remote areas, may have limited or unstable Internet connections. We

encourage the inclusion of exemption forms for such consumers, as reliable connectivity is often beyond their control.

### *Implementation Pathway*

MEA notes that in Victoria, solar systems installed prior to EBM implementation are not required to be upgraded. However, if a building with existing solar panels (installed before the introduction of EBM requirements) adds an additional system after the EBM installation requirements are in place, all solar inverters on that building (both old and new) must be made compatible with the EBM.

MEA argues that this approach is impractical, unnecessary, and potentially extremely costly. We urge the NSW Government to ensure that only the new systems being installed are mandated to be compatible with the EBM, and that existing solar systems already on site are not impacted by this requirement.

### *Action for Operating the EBM*

On page 23, the consultation paper outlines key actions required for operating the EBM, including –

“Appropriate device-level fall back behaviours in case of communications loss (for example, site gradually reverts to zero exports if communications are lost for a set period)”

MEA raises concerns about this action point, noting that Queensland currently follows this process as well. There is a risk that communication between the energy consumer and the DNSP could be lost without the consumer’s knowledge, leaving them unaware until the next quarterly billing cycle. A failure in communication infrastructure could result in CER assets either failing to reconnect to the DNSP’s network and/or defaulting to exporting at minimum capacity if communication is lost during an EBM activation period.

To mitigate this risk, we suggest implementing a communications monitoring mechanism. For example, in Victoria, individual consumers receive email notifications if their system goes offline.

### *Implementation Testing Protocols*

MEA recommends the following two testing protocols:

1. **Online Testing** – During the commissioning phase, DNSPs should test the EBM’s operational functionality to allow the operator to assess its successful compatibility in real time.
2. **Manual Testing** – The operator should manually test the system during the commissioning phase.

### *Communicating Information to Target Audiences*

MEA asserts that the onus for disseminating information should lie with the NSW government, DNSP’s and inverter manufacturers. We also note that organisations such as Solar Accreditation Australia (SAA) and Master Electricians Australia (MEA) serve as valuable communication channels to inform installers of updated requirements and urge the NSW Government to collaborate with these organisations in conveying important updates.

## Solar Export Charges

MEA prefers the EBM over the export charges recently approved by the Australian Energy Market Operator (AEMO)<sup>1</sup> and implemented in NSW.<sup>2</sup>

We urge the NSW Government to revoke retailers' ability to impose these tariffs in favour of the EBM, as both aim to manage grid solar capacity, but the EBM is the more cost-effective solution for consumers.

## Battery Incentives

To address infrastructure issues affecting energy stability, MEA advocates for increased small-scale storage capacity and EV bi-directional chargers to reduce reliance on large-scale generators. Current NSW battery installation incentives range from \$1,600 to \$2,400 for homes and businesses with existing solar<sup>3</sup>. However, with the high cost of CER, MEA argues the value of these discounts needs to be increased to prevent further income disparities.

The cost of small-scale batteries is substantial where installation costs for battery systems, influenced by size, labour, and product pricing, can average around \$12,000<sup>4</sup>, forcing consumers to either forego battery installations and instead rely on grid energy during EBMs or shoulder the remaining installation costs, potentially buying from unreliable suppliers. This situation benefits higher-income households, who can rely on cheaper, pre-stored solar energy, while lower-income households remain reliant on grid power, widening the income disparity gap.

With the NSW Government seeking to impose EBMs on solar consumers, it is essential to introduce schemes that address both short-term and long-term financial constraints for all households and businesses.

## Electric Vehicle (EV) Bi-Directional Chargers

MEA welcomes the Australian Renewable Energy Agency's (ARENA) [National Roadmap for Bidirectional EV Charging](#), which aligns with our long-standing policy to reform infrastructure and technical standards that hinder widespread adoption.

EVs serve as mobile energy reservoirs, offering a missed opportunity to enhance private electrification and reduce reliance on large-scale generators. With recent AS/NZS updates allowing EV bidirectional charging, consumers can now charge their EVs with solar and store excess energy for later use to energise their houses/businesses.

MEA urges the NSW Government to introduce rebates for EV bidirectional chargers, to expand private storage capacity, reducing reliance on large-scale generators, and minimising concerns over Minimum Load Systems (MLS) and the need for the EBM.

## Common Smart Inverter Profile – Australia (CSIP)

### Support for CSIP

MEA supports the harmonised implementation of the backstop mechanism by DNSPs. The benefits of the CSIP-AUS being implemented across NSW DNSPs for installers include:

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<sup>1</sup> Alina Eacott "Electricity companies get green light to charge rooftop solar owners for exporting power to the grid" *ABC News* [12 August 2021] <[Electricity companies get green light to charge rooftop solar owners for exporting power to grid - ABC News](#)>

<sup>2</sup> Nina Hendy "Homeowners rush to buy batteries to avoid 'sun tax'" *Australian Financial Review* [03 September 2024] <[Clean energy: Homeowners are buying batteries to avoid fees for excess solar energy \(afr.com\)](#)>

<sup>3</sup> Minister for Energy and Climate Change "Incentives to boost rollout of household batteries in NSW" *NSW Government* [24 May 2024] <[Incentives to boost rollout of household batteries in NSW | NSW Government](#)>

<sup>4</sup> Finn Peacock "HOW MUCH DO SOLAR BATTERIES COST IN AUSTRALIA?" *SolarQuotes* [18 December 2024] <[How Much Do Solar Batteries Cost in Australia?](#)>

- **Reduced Unnecessary Red Tape** – A harmonised approach ensures that NSW DNSPs do not introduce additional and unnecessary accreditation and testing requirements. This prevents extra administrative and training costs for licensed electrical workers, streamlining compliance across the State. If each NSW DNSP had separate rules and communication protocols, small-to-medium electrical contractors would face increased costs in obtaining multiple accreditations and meeting different testing requirements.
- **Reduced Administration** – The portal's pre-automated information capability reduces time for installers completing the application and will simplify processes for installers by collecting all the information required about an installation in one place.
- **Standardised Installation Process** - Consistent communication protocols and technical standards simplify the installation and commissioning of inverters, making the process more predictable and reducing errors. This allows licensed electrical workers to apply the same knowledge and skills across different DNSPs, reducing complexity on-site.
- **Enhanced Consumer Confidence** - A uniform framework ensures that all CER installations meet the same security and performance standards, increasing consumer trust in solar and battery systems. This helps maintain grid stability by ensuring that the backstop mechanism is applied consistently across jurisdictions.

## Conclusion

The energy network has evolved from a traditional one-way system to a modern two-way flow, facilitated by CER, giving consumers greater control over energy generation and costs. This shift has disrupted the normal operations of DNSPs, to which MEA contends that initiatives like the EBM fail to address the core issue of maintaining a stable energy supply while managing solar exports to the grid. The issue to be addressed is one of infrastructure, not policy. A clear solution is to upgrade the grid to accommodate greater CER storage capacity, which would reduce the need for the AEMO and DNSPs to interfere with consumers' ability to generate and store solar energy.

The EBM provides an interim protection for stable energy supply to those households without CER or battery storage, but it is not a sustainable solution, particularly as more households and businesses adopt CER. Mechanisms like the EBM inhibit consumers from fully realising the economic benefits of CER, ultimately jeopardising confidence in the electrification transition. Consumers may feel that their promised power of choice provided by CER is limited as they continue to be forced into periodically relying on traditional grid energy costs, even after investing in costly CER systems as directed by the government.

MEA asserts that with the introduction of the EBM, there is no justification for the continued imposition of solar export charges on consumers. Both mechanisms aim to manage the impact of solar on the grid. We urge the NSW Government to discontinue this charge in the State and focus on funding support for increase small-scale battery installations.

MEA looks forward to the outcome of the Solar Emergency Backstop Mechanism and remains available for any further questions.