

Battery Booster Program.

Breaking the “Ducks Back” - using CER to reduce the evening peak electricity demand.

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Master Electricians Australia (MEA) is the trade association representing electrical contractors recognised by industry, government and the community as the electrical industry's leading business partner, knowledge source and advocate. Our website is www.masterelectricians.com.au

MEA have participated in multiple submissions regarding distributed energy resources (DER), promoting the benefits of Solar PV and Home Batteries. Throughout this submission we provide a high-level position of our vision for the future of solar and battery installation in Queensland. We highlight issues which warrant focused attention and provide insight towards desirable qualifications for their installation.

Consultation Questions

Battery Installation Standards and Associated Connections

Is this list of standards appropriate and complete to ensure installations are safe and suitable for connection, or are there any additional standards which should be considered?

AS/NZS4509 is for off grid and would not be eligible due to the requirement for a grid connection this standard should be removed.

Is there some other more specific best practice guide or code of practice which should also be considering?

No.

Consideration is being given to developing a declaration for installers/retailers to provide declaration that all installations will meet these requirements and that they will install eligible equipment and that they meet installer eligibility requirements. This list would be updated periodically. Are there any other matters that should be included in this declaration?

No.

Training and Accreditation Requirements for Installers

Should the program commence in late 2023, what form of training, licenses and/or accreditation does your organisation recommend should be required for the program? Please explain why.

CEC battery & CEC solar accreditation. They are the accepted industry standard and have good acceptance in the marketplace, most reputable installers already possess these.

What should be the minimum level of training for installers to mitigate safety risks related to the installation and long-term operation of solar home batteries in Queensland?

Licensed electrical workers with a Cert 4 in PV and CEC accreditation.

If the department requires eligible batteries to be installed by installers with specific accreditation/qualifications, do you consider it appropriate for the department to require installer pre-register their qualifications with the department to be eligible?

No. Not only will this slow down the process, but a peak body already holds this and checks with CER (Clean Energy Regulator) to manage the STC (scale technology certificates) created. In MEAs opinion, this appears to be unnecessary red tape.



The department proposes to limit risk of inexperienced start-up companies installing batteries under this program and proposes to require installers to have an established presence in Queensland prior to the program commencing along with accreditation and training. What do you see as the benefits and challenges to this parameter?

MEA fully supports this and believes it is a key requirement. Queensland has the workforce to available to complete this work, removing the need to utilise interstate fly-in-fly-out workers.

Are there any further suggestions as to how the department can limit companies with poor or unsafe installation work practices from participating in the program?

Similar to the Victorian rebate, audit the contractors are to bear responsibility for ensuring compliance.

Eligible Systems for the Program

Apart from those recalled by LG, are you aware of any other problematic batteries whose inclusion should be reviewed?

MEA emphasises the importance of continuing to include LG in this rebate program. From 2017-2019, LG raised the voluntary recall of manufacturing. Since then, they have produced over 500,000 cells used in Porsche and other cars. Combined with the fact LG are one of the largest cell manufacturers outside of China, it would be a mistake to exclude them from this program.

It is proposed that batteries must be at least 5kWh. Do you see any concerns with a minimum battery size?

We do not see a problem with a minimum battery size. We recommend considering increasing the minimum threshold to 10kWh.

Early consultation indicated that the eligible systems list should be limited to a small number of high quality and more expensive systems. However, not all customers have the ability to afford these systems. Do you have any suggestions as to how the list could be refined while still maintaining choice for a range of budgets?

Approved batteries should have the following requirements:

- Been present in Australia for the preceding two or more years; and
- Offer the customer a minimum 10-year warranty.

Including these criteria eliminates many cheaper imports that will not exist to support their product in several years.

An issue which has been highlighted by the LG recall is that some battery system serial numbers were not tracked throughout the process. Therefore, the recall has been hampered by not being able to pinpoint at risk systems easily and efficiently. Apart from requiring the tracking of serial numbers, does your organisation have any other suggestions as to how recalls could be managed in the future?

We recommend mandating that 100 per cent of data is to be collected in the Energy Retailers PTC and further implement processes to ensure DER is completed correctly. Doing so enables agents to be notified in the event of battery recalls.

Privacy data policies needs to reflect the collection of such data. Customers need to be aware their information is being collected for recall purposes to allow Government to contact manufacturers to contact homeowners.

Lastly, we suggest batteries are registered with the manufacturer for the extended warranty period. This will assist in identifying and contacting consumers effected by recalls.

Knowledge and Awareness of Dynamic Connections

What are the barriers to adopting dynamic connections and what steps could be taken to overcome them?

If EQ is going to mandate some oversight of BESS with dynamic connections protocols in the CER context and have comfort that BESSs are supporting the grid, there are risks of network communications failing (e.g. wifi or embedded sims) and network load information being used by an installation lost. Where failure occurs and grid demand information is not available, BESS systems should have a failsafe operating mode and not just cease to operate or be “bricked”. In all instances, we assume that there will be local CTs monitoring the usage of the home/installation as well as export and import.

When communication is lost, the failsafe operation mode should be to charge the BESS with excess PV generated in the home if the battery still has charge capacity, and that during times of no PV generation, that BESS capacity be discharged for use in the home to minimise or eliminate import from the grid.

Currently some OEMS are not registered with Energy Queensland’s system, but could become registered in the future. Do you see any barriers for those OEMS registering?

No.

Is there any prospect of training or more comprehensive guidance being released to industry or consumers from peak bodies?

Yes. MEA would like to be involved in discussions with the government and other stakeholders on this topic.

It is proposed that the program does not mandate the communications link to the Energy Queensland server that publishes the dynamic operating envelope be enabled, but they would be required to have a dynamic connection. Do you see any concerns with this approach?

MEA has no concerns.

The Role of the Inspectorate in the Program

In order to mitigate safety risks related to installations funded within the program, what is your perspective on an inspectorate and how would your organisation envisage the inspectorate should function?

We recommend reflecting the process in Victoria. This appears to have worked well.

Are there any key ‘high risk’ aspects of a battery installation on which the inspectorate should focus on?

- Location
- Fire rating and Egress access
- Shutdowns.

What implications/enforcement do you suggest to encourage installers to return to inspected installations found to be sub-standard or unsafe?

Claiming back rebate.

Additional Questions

Do you have any suggestions regarding best strategies for providing information/guidelines to installers and consumers?

We recommend utilising key industry stakeholders. For example, as a members' association, MEA is an example of an industry participant that has a wide engagement within the battery and solar industry.

Do you envisage any issues regarding installation times, supply chains or workforce constraints?

November-December is a very busy time for solar installations. It is important to plan timing for installations.

Are there any issues or concerns the department should be aware of concerning the installation of batteries on older existing PV systems? DEPW understands that installers are currently required to ensure existing PV systems are safe and adequately compatible prior to installing a battery. Is this correct? Do you see any concerns in this regard?

If the battery is AC coupled, then the existing solar is a separate installation and is therefore not a requirement.



Conclusion

MEA advocates that Queensland licenced electrical workers with at least qualifications in Cert 4 PV and CEC Accreditation are to be utilised in installing solar PV and home battery systems in the Queensland region. This industry has the base skills applicable for solar and battery installation and are currently underutilised in the private DER technology space.

With regards to the batteries themselves, we support a minimum kWh threshold and suggest increasing the threshold from the proposed 5kWh to 10kWh. To ensure longevity and security in the batteries consumers are installing, we envision a two-step criteria requiring the battery to

- (a) have a presence in Australia for a minimum of two years and
- (b) provide consumers the opportunity for a 10-year warranty.

To enhance battery tracking, we suggest detailed reporting of the chain-of-custody between manufacturers, retailers, installers, and customers. The government should be responsible for holding this data, enabling greater identification and communication with customers affected by recalled batteries.

In terms of the eligibility for the battery installations, it is MEAs firm view that this should not be means tested. The cohort of early adopters who would be most interested in installing BESS (Battery Energy Storage Systems) and with the disposable income to do it, would most likely be double income families with household incomes of over \$250K. Just as we did with growing the market for solar PV in its infancy, the early adopters now will be paying a premium for the installation of BESS until the market reaches a critical mass of installers and installation prices start to drop as competition kicks in. There is also the “neighbour” factor to consider, every consumer who installs BESS and takes themselves out of the evening peak incrementally reduces the peak electricity price and helps their neighbour. MEA believe that means testing the eligibility of consumers for this program would lead to a sluggish uptake and runs the risk of getting the best result for the wider community.

MEA is eager to be involved in further consultations around this issue and look forward to engaging further with the department on this vital issue.