

Lead.Connect.

Community Climate Conversations

Leveraging CER to Combat Climate Change

Chris Lehmann & Georgia Holmes 20 October 2023

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

Please note, we gave our response through an online questionnaire. The below answer are recorded for the purpose of our members to view. For these reasons we have not prepared an introduction or conclusion.

HEADING

Of the 6 ideas suggested by the Community Climate Panel, which ones need to be prioritised for action to reduce our emission over the next 10 years?

MEA ordered them as below:

- 1. Energy emissions
- 2. Sustainability in construction & infrastructure
- 3. Accessible Low Emission Private Transport
- 4. Accessible Low Emission Public Transport
- 5. Goods and Services Emissions
- 6. Agricultural Emissions.

What are your group's other ideas about what the priorities should be?

To achieve net zero greenhouse gas emissions in SA, MEA strongly advocates for swift and significant prioritisation of Consumer Energy Resources (CER). CER are privately owned, self-generating energy assets which reduce reliance on traditional fossil-fuel transmission networks by generating clean renewable energy and using it closest to the source of production. These resources not only allow for greener energy, but also provide consumers with control over their own energy usage, thereby reducing overall energy prices.

CER includes:

- Rooftop solar photovoltaic units
- Wind generating units
- Battery storage
- Electrical vehicle batteries

When utilised in combination with Time of Use tariffs, Home Battery Storage and Home Energy Management Systems, consumers are incentivised to source their own energy and store it until peak demand. They are then given the choice to utilise the energy to avoid paying soaring electricity prices or to export back to the grid to receive rebates. These financial incentives will alter consumer behaviour inherently reducing carbon emissions.

To encourage consumer investment and enhance societal confidence in CER, its benefits need to be fully optimised and allowing premises to be installed with secondary settlement points to separately identify and measure flexible loads would aid this.

CER is going to become increasingly necessary as electric vehicles (EVs) become more predominant. Bidirectional charging can assist with charging EVs thereby reducing demand pressures on the grid and act as easily accessible battery storage systems. We highlight that introducing DER policies within the Bill is the sensible solution to an easily foreseeable grid stability issue that will inevitably arise with the increase in EVs.

Page 1

Private CER assets that have benefited from a government rebate and are receiving feed in tariffs should have mandatory inspections every five years to ensure stability and safety of the grid.

MEA emphasises the vital role licenced electrical contractors have within CER integration. It is a ready workforce with the necessary base skills to perform a wider cohort of these functions. The electrical contracting industry will assist with accelerating the roll-out of CER infrastructure and MEA stands ready to assist the SA government in addressing these challenges.

What two emissions reduction ideas are the hardest for us (as individuals or as a community) to act on? (Choose from the 6 ideas suggested by the Community Climate Panel OR add your own)

Master Electricians Australia (MEA) provides expertise on matters relating to electrification and EV bidirectional charging. For these reasons, we chose not to select the hardest to achieve as this is beyond our scope of knowledge.

Why are these things hard to act on?

Below we outline how these groups risk being excluded from participating in CER

- Renters: without mandating electrification of households, a significant portion or renters will be
 unable to directly participate in DER as landlords have no personal benefit to invest in such
 changes.
- Low-income households: for this group the cost of investing in CER will be difficult if not impossible.
- *High-rise occupants:* Installing CER technology such as Solar PV and smart meters is more difficult for high-rise buildings. Investment costs of implementing solar PV (and other such CER) is the body corporate's decision.

What could Government or industry do to address the things that are hard to act on?

- Renters: We recommend providing incentives for landlords to implement DER within their
 residential properties such as tax rebates or provide deadlines for installing CER into rental
 properties with a one-off rebate to assist with costs.
- Low-income households: We recommend efforts are focused on this group to ensure they are
 financially capable of installing CER and become educated towards its benefits. We
 recommend introducing rebates for households with income under a certain threshold. We
 highlight that utilising licenced electrical contractors in the electrification process will create
 natural market competition thereby keeping installation prices low, particularly beneficial for
 low-income households.
- High-rise occupants: We recommend policies are implemented mandating body corporates to approve CER installations which benefit all residents. Further issues in metering can arise, however, we believe utilisation of pre-existing embedded networks is the solution.
- We note that the infrastructure for CER is here and ready; it is government policies and regulations which need to catch up.

What could you do as individuals, communities, or organisations to address the things that are hard to act on?

- Install CER technology, HEMS and Home Battery Systems
- Utilise time of use tariff.

Now that you have talked together about climate change and reducing emissions – what are the key themes that emerged during your conversation?

- MEA stresses the vital role licenced electrical contractors play with installing and maintaining
 the private CER infrastructure market. Ensuring licenced electrical contractors with Cert IV
 qualifications occupy the private arena of CER will enable efficient and effective private CER
 rollout and create a competitive market driving down consumer prices. It further leaves more
 capacity to DNSPs to integrate CER with the network and monitoring functions.
- Government policies and regulations need to catch up to existing CER technology to fully optimise its full benefits.
- CER provides great opportunity to maintain stability and integrity of the grid, cost saving opportunities for consumers and great option for sourcing, storing and utilising clean energy.
- Government needs to invest into vocational education training (VET) at secondary school level
 to expose a all students, regardless of diversity personal circumstance to Science, Technology,
 Engineering and Math (STEM) trades. This will address both the skills shortage and diversity
 issues currently facing STEM trades such as electrical workers.