



Clean Energy Council submission to the Department of Environment, Land, Water & Planning Victorian Neighbourhood Battery Initiative

The Clean Energy Council (CEC) welcomes the Department of Environment, Land, Water and Planning's Victorian Neighbourhood Battery Initiative and the opportunity to provide input to it.

The Clean Energy Council (CEC) is the peak body for the clean energy industry in Australia. We represent and work with hundreds of leading businesses operating in renewable energy and energy storage. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

CEC strongly supports the proposed Department of Environment, Land, Water and Planning's Victorian Neighbourhood Battery Initiative. We look forward to this initiative being launched to further the Victorian government's long-term vision for a decarbonised electricity system and support uptake of Distributed Energy Resources (DER) such as solar PV, batteries, smart appliances and electric vehicles.

The Victorian Neighbourhood Battery Initiative has the potential to play a critical role in the development of business models for neighbourhood batteries by undertaking trials with a variety of proponents and operational models. We further suggest that where regulations are a barrier, sandboxing might be necessary for the testing of some configurations and business models.

We have provided additional detail on consultation questions in the remainder of this submission. We would be very happy to discuss these issues in further detail. We look forward to contributing further to this important area for policy development.

Questions for consultation

1. How can the Neighbourhood Battery Initiative help to ensure a level playing field across different types of proponents and operational models?

It is very likely that neighbourhood batteries will require the active cooperation of distribution network service providers (DNSPs) to facilitate siting and installation and with respect to tariffs. The Victorian Neighbourhood Battery Initiative should take steps to ensure competitive neutrality, so that DNSP-led projects do not obtain an unfair advantage and so that there are no unreasonable barriers to project proposals that have not been initiated or led by the DNSP.

The Victorian Neighbourhood Battery Initiative has the potential to play a seminal role in the development of business models for neighbourhood batteries by undertaking trials with a variety of proponents and operational models to see which combination works best.

Where regulations are a barrier, sandboxing might be necessary for the testing of some configurations and business models. The Victorian government could assist with support to projects with their sandboxing applications to regulators.

4. What is the best way to share learnings from this initiative?

Design a community engagement initiative framework and engagement strategy, organising a community battery knowledge sharing workshops in different regions of the state (designed based on location), getting the community involved and informed in each stage of the battery initiative program and engaging with local Aboriginal groups beyond planning requirements, such as Cultural Heritage Management Plans.

5. How can the Neighbourhood Battery Initiative ensure that all projects are developed with meaningful engagement with the local community?

Community engagement initiative framework and engagement strategy, education on community ownership and benefit sharing model, community battery sharing workshops in different regions of the country designed to specific location, get the community involved and informed in each stage of the program, engaging with local aboriginal groups beyond planning requirements, such as Cultural Heritage Management Plans.

It is useful to consider how the community can be drawn on to provide design input. Seeking design input involves creating opportunities for local people to provide input into the design of the community battery projects. Participatory siting can maximise community input by inviting key stakeholders to help determine the placement of equipment and associated infrastructure. Design advice from relevant members of the community can assist a developer to ensure plans are locally appropriate and have the highest chance of social acceptance success.

6. What are the key consumer protection issues associated with virtual storage models? How can consumers be supported to make informed decisions about their participation in such models? What are the consumer data requirements for participation?

The participant's data should be only collected on a voluntary basis and according to consumer privacy and confidentiality regulations.

Terms and conditions for participants should be transparent and all programs should be on an 'opt in' basis.

Drawing on the lived experience of participants in community battery programs elsewhere (e.g., in Western Australia) could be of value. Consumers will likely trust the feedback of other consumers who have participated in similar programs more than they would trust government, DNSPs or retailers.

7. What are the most effective strategies to communicate with consumers to support effective engagement with the battery?

Educating on the net benefits of using community batteries such as:

- co-investment,
- co-ownership,
- regional economic development through local jobs and investment,
- investment of returns in local community projects and sponsorship,
- innovative products, including virtual storage models or peer-to-peer trading,
- increase energy equity,
- lower costs and increased ability to integrate more solar PV energy generation into the distribution network (hosting capacity),
- providing an opportunity for a wider range of individuals to access the benefits of renewable resources,
- enabling more solar systems to be installed on a network without costly infrastructure upgrades,
- helping to keep the grid stable by absorbing surplus rooftop PV electricity generation during the day and releasing it during peak times and at night,
- emissions reduction,
- enabling households to potentially participate in the electricity market,
- providing local apartment residents with access to solar-generated electricity,
- cutting electricity costs by reducing reliance on fossil fuels during periods of peak energy demand when electricity prices are at their highest, and
- sharing the benefits of community batteries can be shared between local customers, the wider community, electricity networks and other energy companies.

8. How can the initiative support customer recruitment into neighbourhood scale battery trials?

Face-to-face engagement with local people is a key determinant of positive social outcomes.

Offering the following types of benefits throughout a project's development:

- Local jobs and procurement
- neighbourhood benefit programs
- energy efficiency programs, residential solar panels, or contributions/discounts to electricity bills for neighbours or neighbourhood community facilities
- contributions to neighbourhood infrastructure such as paying electricity bills
- one-time payment at the commencement of a neighbour agreement
- sharing equity in the development with neighbours
- sponsorship and community benefit funds and/or legacy community benefit initiatives
- employee volunteerism
- innovative products (including electricity products)
- innovative financing (including co-investment and co-ownership)

9. What do you as a consumer expect from interaction with a neighbourhood scale battery?

Consumers expect that community batteries can help deliver cost savings and support the take up of solar power by households and businesses.

10. How can the Neighbourhood Battery Initiative facilitate partnerships between third parties and distribution businesses to trial network support arrangements, and identify network locations where neighbourhood scale batteries can deliver value?

Proponents and DNSPs would benefit from the publication of network maps identifying the locations where neighbourhood batteries are likely to deliver multiple benefits. For example, it would be helpful to identify the locations:

- Where the DNSP anticipates replacement of a single wire earth return (SWER) line with a stand-alone power system or microgrid and where a neighbourhood battery would assist
- That are prone to natural disaster (e.g., bushfire prone) and where the reliable supply of a neighbourhood battery would provide additional safety in the event of de-energisation as a fire safety measure or during a blackout
- Where solar penetration is high, and the neighbourhood battery could improve hosting capacity and enable peer to peer trading
- Where a neighbourhood battery could avoid expensive augmentation of the poles and wires network

11. How can the initiative best support proponents to address these challenges? What interim arrangements are available where solutions require longer-term or regulatory change?

Sandboxing provisions in the National Electricity Rules (NER) allow for regulations to be suspended where they would be a barrier to innovative trials. There could be a useful role for government in supporting sandboxing applications to regulators.

12. What are the key considerations associated with trialling innovative tariffs?

The creation of a local use of service (LUOS) tariff, that applies to flows of energy that originates and terminates within a local sub-region of the distribution network.

Considering the range of tariff options and relevant issues listed below but locational marginal pricing is probably the most useful one for community battery trials.

Time-of-use pricing - doesn't reflect dynamic conditions on the network, doesn't vary with location, charges are too high at off-peak times, too low at peak times, may cause some load shifting but not efficient.

Demand charges - demand charges are based on customer peak not network peak, sends inefficient incentives to over-invest in devices to lower customer peak, doesn't vary with location and charges are, in effect, highly volatile, but just not in the right way.

Critical Peak pricing - critical peak could be linked to network congestion in some areas, but conditions must be anticipated, and notice given, limit on number of such notices per year, doesn't vary with location, charges are volatile, and partially dynamic, and could be partially reflective of network congestion.

Locational marginal pricing - charges vary dynamically with time and location and reflect cost of using the network, requires establishing a DSO/DMO.

13. What are the key technical and operational considerations for neighbourhood scale battery proposals?

- How to manage service contracts to multiple parties e.g., retailers and DNSPs?
- How to balance the provision of services, to benefit all stakeholders e.g., energy users and the network?
- How best can DNSPs procure the services that storage can provide, from storage owners within the current framework?
- How can battery projects secure finance, when the energy transition is making market forecasts difficult, many services the battery can provide are not yet priced, and the 5-minute market settlement that will be introduced in 2021 will have a likely positive but unknown effect on battery storage?
- Allowing the market participant class 'Small Generation Aggregator', that can be used for battery storage, to provide ancillary services (FCAS), avoiding the need to separately register as an ancillary service provider.
- Reward (via market or otherwise) non-energy services that can be provided by battery storage, that are not currently rewarded, including increased hosting capacity, fast frequency response, synthetic inertia, emissions reduction, and resilience.

The focus should be on ensuring that smaller market participants, including community groups, are not locked out of the market. This is a particular risk if DNSPs begin to invest in community-scale storage, as their market dominance could give an unfair advantage. Specific schemes could be established to support community energy projects, for example, provision of financial and technical support.

14. What role can the Victorian Government play in addressing challenges or barriers faced by neighbourhood scale battery projects?

The Victorian government could do the following to help Community Battery integration:

- Financing the development stage of the project (start-up grants and investment)
- Assistance with sandboxing applications to regulators
- Encourage local council or community group ownership
- Helping community battery owners gain required licenses and remove barriers for operation
- Customer protection frameworks - consumer rights should be safeguarded even if customers engage in sharing
- Tax relief to customers and community groups
- Favourable bank loans for community groups
- Free advice and support
- Provide free online toolkits
- Pre-planning loans to community owners
- Support to access post-planning loans
- Making it available for customers sign up for a specific community-scale battery energy tariff or subscription
- Making it available for customers could receive benefits through their DNSP

15. What are the key research and evaluation questions the Neighbourhood Battery Initiative should be seeking to answer through the trial program?

Who has the local ownership and/or decision-making power, local project development and design, flow of benefits to local individuals or stakeholders and energy production matched to local energy needs?

Regulatory barriers to neighbourhood batteries. Which business models appear to be successful, and did they require a regulatory 'sandbox'? If so, what changes to regulations would enable similar business models to proceed in future without the need for a sandbox waiver?

16. How can the initiative best support the deployment of neighbourhood scale battery projects at all stages of project development?

Getting community directly involved at each state of the project development from the beginning of project design phase/procurement stages to project operation and commissioning stages.