MAC Trade Services

1 July 2024

Dear Independent Pricing and Regulatory Tribunal,

Submission on the draft PDRS Method Guide consultation

MAC Trade Services appreciates the opportunity to comment on the draft Peak Demand Reduction Scheme (PDRS) Method Guide.

Overall, MAC Trade Services supports the requirements, examples and proposed measures outlined in the draft PDRS Method Guide. However, we have concerns regarding the structure and evidence requirements of the BESS2 activity, which may make this activity too complicated and onerous for both Accredited Certificate Providers (ACP) and Demand Response Aggregators (DRA).

Converting batteries to a Demand Response Aggregator is crucial for achieving the PDRS's purpose of reducing peak electricity demand and alleviating pressure on the electricity system in NSW. However, we believe a balance must be struck to ensure consumers are protected and make participation attractive for ACP's and DRA's.

In addition to our feedback on the specific consultation points, we have included additional feedback on areas not explicitly covered in the consultation but where we believe further clarity in the Method Guide would enhance the activities, based on our extensive experience with similar activities. More details are prepared in the response to the consultation questions below. We hope our feedback will help make these activities practically viable for participants while maintaining the schemes integrity.

About MAC Trade Services

At MAC Trade Services we believe the efficient electrification of our homes and businesses is vital for a sustainable future. Our mission is to reduce our dependence on fossil fuels by retrofitting appliances and installing clean energy sources. As a leader in energy efficiency and sustainability, we upgrade more than 5,000 homes and businesses annually, making us one of the largest energy services companies in South Australia.

Our team provide a range of behind-the-meter energy services, including lighting upgrades, hot water, batteries, refrigeration, heating and cooling and EV charging solutions. Additionally, our in-house engineering team has designed, built, managed and commissioned some of Australia's most extensive solar and battery projects, building distributed energy resources and demand response assets throughout the National Energy Market.

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In the past 12 months, we expanded our offerings to become the first and only Activity Provider under the Retailer Energy Productivity Scheme (REPS) to offer South Australians a rebate to connect a new or existing battery to an approved Virtual Power Plant. This initiative fostered strong relationships with major energy retailer and Virtual Power Plant operators, uniquely positioning us to respond to the questions in this consultation.

Thank you for considering our submission.

Warm regards,

[redacted]

[redacted]
Chief Operating Officer

Contents

Contents 2

Scene setting 3
Other Feedback 4

BESS1 & BESS2 - Equipment Requirement - 28kWh capacity limit 4
BESS1 & BESS 2 – Equipment Requirement – Warranted throughput 5
BESS1 – Eligibility Requirement - Existing batteries 6
BESS2 – Demand Response Aggregators 6

Consultation Questions 8

3 Our approach to the PDRS Method Guide 8
4 Method Guide Requirements 8
5 Capacity holder nomination requirements 13
6 Evidence requirements 14
7 Appendix 1 – Extract of SA Department for Energy and Mining's application questions 20

Scene setting

Battery Retailers, Electricity Retailers, and VPPs – A Discussion on Different Delivery Models

In this response, we will discuss how the ease and practicality of meeting certain requirements and collecting evidence depend on the delivery model and the way consumers choose to access services. To aid in understanding, we present Table 1 below, which describes the main delivery models currently observed in the market and the number of entities consumers can engage with to participate in these services. The most common delivery models we see are models 2, 3 and 6.

It is important to note that BESS1 and BESS2 can be offered separately, as a package, or with BESS2 introduced post-installation with a time delay. We encourage IPART to consider the diversity of these models when finalising requirements. The variability in delivery models affects how requirements are met and how evidence is collected, making flexibility essential.

Table 1Range of delivery models

Delivery Model	Description	Battery Retailer	Electricity Retailer	DRA/VPP	ACP
1	Consumers purchase batteries from electricity retailers who may bundle it with energy plans. Energy retailer is an ACP.	Entity A	Entity A	Entity A	Entity A
2	Consumers purchase batteries from electricity retailers who may bundle it with energy plans. Certificate creation handled by a separate ACP.	Entity A	Entity A	Entity A	Entity D
3	Consumer purchases a battery system and engages with an entity who offers electricity plans, VPP contracts and will create certificates	Entity A	Entity B	Entity A	Entity D
4	Consumers engage with both battery retailers and VPP operators, either sequentially or with a time delay.	Entity A	Entity B	Entity B	Entity B
5	Consumer buys a battery system and manages VPP independently.	Entity A	Entity B	Entity C	Entity D
6	Consumers has an existing battery or installs a battery separately. Then sign up with a VPP operator, who manages battery integration and grid interaction.	Entity A	Entity B	Entity B	Entity D

Service performed by:
- Entity A
- Entity B
- Entity C
- Entity D

Considerations for BESS1 and BESS2

Separate Offering: BESS1 and BESS2 can be offered as standalone services. This model may require distinct processes for each service, affecting how fact sheets and evidence are managed.

Packaged Offering: BESS1 and BESS2 can be bundled together, simplifying the process for consumers but potentially complicating evidence collection and meeting requirements.

Post-Installation Offering: BESS2 can be introduced after the initial installation of BESS1. This staggered approach can pose challenges in tracking and documenting compliance over time.

Other Feedback

We would like to take this opportunity to raise some items we believe could use further consideration and clarification. This includes:

- BESS1 & BESS2
  - Equipment Requirement - 28kWh capacity limit
  - Equipment Requirement – Warranted throughput
- BESS1
  - Eligibility Requirement - Existing batteries
- BESS2
  - Demand Response Aggregators
  - Demand Response Contracts

BESS1 & BESS2 - Equipment Requirement - 28kWh capacity limit

Hard limit

The current hard cap of 28kWh for battery capacity is problematic. In South Australia, the approach allows customers to receive a rebate for up to 28kWh even if their total capacity exceeds this limit. This method avoids discouraging customers from installing larger capacities.

The requirement in South Australia is that "Batteries must have a capacity greater than, or equal to, 2 kWh," with the savings calculation capped at 28kWh.

Figure 1 Snapshot of REPS VPP Specifications – Full specification available here https://www.energymining.sa.gov.au/__data/assets/pdf_file/0007/672658/REPS-specification-VPP1.pdf

4. INSTALLED PRODUCT REQUIREMENTS

(1) Batteries shall comply with the Battery Safety Guide (*Best Practice Guide: Battery Storage Equipment –Electrical Safety Requirements, Version 1.0, Published 06 July 2018*) if installed after and during January 2019. Batteries installed prior to January 2019 must comply with the VPP requirements.

(2) Batteries must have a capacity greater than, or equal to, 2 kWh.

Battery Size (kWh)	**Productivity Factor**
10 ≤ Battery size < 12	**86.2**
12 ≤ Battery size < 14	**103.4**
14 ≤ Battery size < 16	**120.6**
16 ≤ Battery size < 18	**137.8**
18 ≤ Battery size < 20	**155.1**
20 ≤ Battery size < 22	**172.3**
22 ≤ Battery size < 24	**189.5**
24 ≤ Battery size < 26	**206.8**
26 ≤ Battery size < 28	**224.0**
28 ≤ Battery size	**241.2**

The current PDRS wording might lead to inefficient behaviours, such as customers installing 28kWh of battery to claim the rebate and then installing additional capacity separately.

To prevent this, we suggest retaining the rebate cap at 28kWh but allow for larger installations.

To achieve this, without requiring a change to the newly published PDRS Rule, an approach could be to set the capacity value at 28kWh for all batteries exceeding this size in the product list administered by IPART. This would effectively cap the rebate while discouraging inefficient installation behaviours. Allowing larger batteries to use the BESS1.2 and BESS2.2 Equations but with the modified value from the product list.

Activity Peak Demand Shifting Capacity

Equation BESS1.1

Peak Demand Shifting Capacity = Demand Shifting Component × Firmness Factor

Where:

- *Demand Shifting Component,* in kW, is calculated using Equation BESS1.2
- *Firmness Factor,* as a fraction, is the likelihood that capacity will be available during a system peak event as defined in Table A6.

Equation BESS1.2

Demand Shifting Component = Battery Capacity × 0.0853 kW/kWh

Where:

- *Battery Capacity,* in kWh, is the Usable Battery Capacity as recorded on the approved product list specified by the Scheme Administrator.

Multiple batteries

The current phrasing around the 28kWh limit is unclear regarding the eligibility of multiple batteries in a single implementation. **Clarification is needed on whether customers can claim rebates for multiple batteries installed at once**.

There are two potential scenarios:

1. Allow multiple batteries in one go: Customers could install multiple batteries in a single installation (combined useable capacity not exceeding 28kWh) but would not be allowed a second visit for additional claims e.g., two Tesla Powerwall's installed at once.

2. Exclude multiple batteries: If multiples are not eligible, the capacity equation in the rule should explicitly state that it does not sum multiple battery capacities.

It is also unclear if a consumer with two batteries, whose combined usable capacity is less than 28kWh, would be eligible for BESS2. Clear guidelines on this aspect would help avoid confusion and ensure consistent application of the rule.

BESS1 & BESS 2 – Equipment Requirement – Warranted throughput

The calculation for warranted throughput, currently set at 3.65MWh per kWh of Usable Battery Capacity, appears to exclude many popular battery models.

Our investigations indicate that 5-6 of the most popular battery manufacturers, including Tesla and AlphaESS do not meet this requirement.

[redacted]

This criterion significantly limits the range of eligible batteries and may reduce consumer participation. We recommend revisiting this calculation to ensure it is inclusive of widely-used battery models, thereby promoting broader adoption and alignment with the scheme's goals.

BESS1 – Eligibility Requirement - Existing batteries

We recommend reconsidering the eligibility requirement that excludes customers with existing batteries from the BESS1 rebate.

Customers who wish to expand their behind-the-meter capacity by adding additional batteries, such as a second Tesla Powerwall, should be eligible for the rebate. This exclusion does not align with the scheme's intention to reduce peak demand. Increasing a customer's battery capacity only furthers the scheme's goal of enhancing peak demand reduction.

Allowing rebates for additional batteries would encourage broader participation and greater overall capacity, thereby better achieving the scheme's objectives.

BESS2 – Demand Response Aggregators

In this response, we discuss the benefits of IPART approving DRAs/VPPs rather than relying on other definitions. We would like to emphasise this point here. Without an approved list, IPART lacks the control needed to ensure that DRAs/VPPs are meeting their own requirements.

Currently, it is unclear how IPART ensures that DRAs and VPP operators comply with their obligations. A clear, standardised approval process would help maintain high standards and consistency across all DRAs/VPPs participating in the scheme. This process should include comprehensive criteria and regular audits to ensure ongoing compliance.

Providing detailed guidance on this process will enable VPP operators to understand and meet the necessary requirements, thereby ensuring the integrity and effectiveness of the scheme. Appendix 1 illustrates the process used by the South Australian REPS scheme to achieve this.

BESS2 – Demand Response Contracts

No lock in contacts

We would like to see guidance on how to meet the three-year contract requirement given the nature of most VPP's on the market. Most VPP's are linked to electricity retail agreements, and with retail contract customers are free to leave these agreements at any time, due to AEMO's Power of Choice initiative.

An exception to this is when customers have an asset-linked agreement (e.g., paying off a battery), in which case they can still leave but must pay out the asset. IPART should provide guidance on how to meet this requirement and clarify if any penalties for early termination are expected.

Consumers currently enrolled

While the Method Guide includes a minimum contract duration of three years, there is a specific concern regarding customers who are already connected to a VPP but have not received a rebate. With the introduction of the rebate, these customers might cancel their current VPP contract and re-sign to obtain the rebate. This behaviour could undermine the scheme's intention and lead to inefficiencies. To address this concern, some potential measures could include:

- **Cooling-Off Period:** Introduce a mandatory cooling-off period for customers who cancel their VPP contract before they can sign a new one to qualify for the rebate. For instance, a six-month cooling-off period could discourage customers from offboarding and re-contracting solely to receive the rebate.
- **Grandfathering Clause:** Introduce a grandfathering clause that allows current VPP participants to be eligible for the rebate if they meet specific criteria. This would ensure that loyal customers who have been part of a VPP are not disadvantaged by the introduction of the rebate.

Consultation Questions

3 Our approach to the PDRS Method Guide

1. **Do you support the approach we have taken?**
   Yes, we support this approach.

2. **Would you prefer a single Method Guide covering all previous versions of the Rule?**
   No, we agree that this could be confusing.

4 Method Guide Requirements

4.1 Monthly implementation data requirement

1. **Do you see any issues or problems with the requirement to provide BESS1 and BESS2 implementation data to us by the 15th day of the following calendar month?**
   For BESS1 there would be no issue in providing implementation data by the 15th day of the following calendar month. The implementation data required is basic installation information making the requirement reasonable to meet.

   The final delivery model for BESS2 will determine any issues with meeting this requirement, particularly when the ACP is a different entity to the DRA/VPP. However, in general we anticipate it could be achieved.

2. **Is the timing for providing the data practical to implement?**
   As above.

3. **Do you see any issues or problems with the requirement to have and keep photographic evidence that implementations meet requirements by the upload date?**
   Yes, there are issues with the requirement to have and keep geo-tagged photos by the upload date. These issues vary based on the timing of the implementation:

   a. **Timing constraints**: If the implementation occurs on the first day of the month, the issues are minimal. However, if the implementation occurs on the final day of the month, ACPs only have two weeks to complete their Quality Assurance (QA) processes.

      While this is possible if the evidence collected and submitted by an installer (for BESS1) and a DRA or customer (for BESS2) passes straight away, this is often not the case (particularly if the BESS2 application is for an existing battery whereby the customer may not have all the required evidence at hand and will have to source it).

      Therefore, this requirement is unreasonable as ACPs require more time to conduct thorough QA processes and seek amendments to evidence if it does not meet scheme

requirements.

b. **Customer driven processes**: Similar to how we imagine BESS2 will be delivered, collection of photographic evidence for our VPP Rebate in South Australia is driven by the customer. The evidence requested for the VPP rebate is shown in Figure 1.

[redacted]

Common issues observed by our Quality Assurance team include:

i. Incorrect documentation submitted. E.g.
   a. Document in the Certificate of Compliance (CoC) field is not a CoC. (CoC is the SA version of NSWs' CCEW)
   b. Confirmation email attached instead of full contract.
ii. Blurry photos.
iii. Photos that only partially show required evidence.
iv. The time taken to submit or resubmit evidence is entirely governed by the customer and their technical capabilities.

Note: REPS does not have a geo-tagging requirement for this activity.

Similar issues and blow outs to timelines can occur when evidence submitted by battery installers do not pass QA processes.

c. **Geo-Tagging Requirement:** The added requirement for photos to be geo-tagged may further complicate the process and add to the time required. Residential customers might struggle with this technical component, leading to back-and-forth interactions between the ACP and the customer, where ACPs need to provide technical advice on geo-tagging.

In summary, while the requirement aims to ensure timely compliance, the practicalities of evidence collection and submission necessitate more time and consideration, especially given the variability in customer capabilities and the need for thorough QA processes.

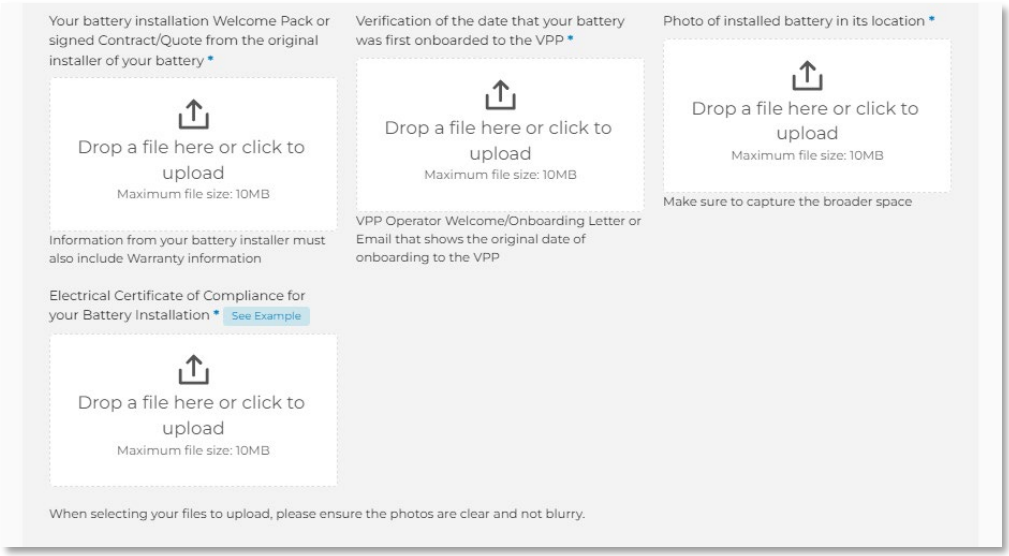


Figure 3 Screenshot from MAC Trade Services website of evidence customer needs to provide for a VPP Rebate
https://mactradeservices.com.au/south-australia/virtual-power-plant

4.2 Requirement to provide evidence on request

1. **Do you see any issues or problems with the requirement to provide evidence within 7 days if requested?**
   We do not foresee any issues with the requirement to provide evidence within 7 days if requested. Our evidence is retained in the Dataforce system, a widely used platform for all scheme activities, ensuring that evidence is easily accessible.

We recommend that IPART confirm that the record-keeping requirement for the PDRS aligns with the Energy Savings Scheme Record Keeping Guide, which stipulates that records must be kept for at least six years, to allow for data storage planning.

Additionally, the method for requesting evidence should accommodate appropriate file sizes for the expected number of files and photos. It should also be a secure way to transmit data, as the evidence may contain customer information.

4.3 Fact sheet requirements

1. **Do you see any issues or problems with the requirement to provide fact sheets to BESS1 and BESS2 consumers?**
   It is challenging to respond without knowing the specific contents of the fact sheet and therefore their purpose. Generally, fact sheets can be useful tools if they are targeted at reducing specific issues.

However, if the fact sheet aims to help consumers understand the technology (batteries and VPPs/DRAs) they are purchasing or signing up to, it may be redundant. The statement in section 8.5.2 of the draft Method Guide suggests a technology specific purpose:

"This requirement aims to help customers make informed decisions about installing a battery or signing a demand response contract under the scheme."

Consumers already receive extensive information when purchasing a battery, as required by the New Energy Tech Consumer Code (NETCC) program.

> ***Suggestion:***
> *For BESS1, we suggest that IPART consider the requirements of the NETCC and the information battery retailers must provide to consumers to ensure there is a need for a fact sheet and there is no duplication.*

VPP operators also provide extensive information online before sign-up, such as:

- https://www.tesla.com/en_au/tep
- https://shinehub.com.au/virtual-power-plant/
- https://www.agl.com.au/residential/energy/solar-and-batteries/solar-batteries/virtual-power-plant

Given these existing resources, a technology-based fact sheet could be redundant.

2. **Is the proposed timing for providing the fact sheet practical to implement?**
   For BESS1, the proposed timing is practical and makes sense. The fact sheet can be provided to the customer at the same time as the proposal/quote, before they agree to or sign the contract.
   However, there is no clear guidance on when to provide the fact sheet for BESS2. Section 8.5.3 suggests it must be sent before the VPP contract is signed. This raises practical concerns.

> ***Suggestion:***
> *Provide practical examples of when the BESS2 fact sheet should be sent.*

[redacted]

If the battery installation is not packaged with VPP connection, customers may be onboarded to a VPP similarly to how they might with an Electricity Retailer— online or over the phone. Online onboarding is straightforward when considering how to supply a customer with a fact sheet, but phone onboarding might require VPPs to change their "first call resolution" approach, where a single phone call and recorded agreement suffice for contractual obligations.

As an ACP, we look forward to working with battery retailers and DRA's to ensure correct documentation is distributed. However, the strict timing requirement presents challenges depending on the business model, the providers the customer chooses for installation and DRA, and the timing of accessing each activity.

3. **How could you provide the fact sheet to consumers?**
We look forward to becoming an ACP for these activities and anticipate operating as an aggregator. We will collaborate with battery retailers and DRA partners to determine the best methods for providing the fact sheet. Considering the various scenarios in which consumers might undertake these activities, methods for delivering fact sheets to consumers could include:

Table 2 Options for Providing Fact Sheets

Activity	**Option**	**Description**
BESS1	Email Attachment	Send the fact sheet as an attachment with the proposal email before the contract is signed. This ensures the customer has all necessary information to make an informed decision.
	Physical Mail	Include the fact sheet in a physical mail package along with the contract documents. This is particularly useful for customers who prefer hard copies.
	Customer Portal	Provide access to the fact sheet through a customer portal where customers can download it after logging in. This could be done prior to signing the contract online.
	In-Person Delivery	Hand out the fact sheet during an in-person consultation or site visit. This ensures that the customer can ask questions and get clarifications in real-time.
BESS2	Digital Signature Platforms	Use digital signature platforms that integrate the fact sheet into the contract signing process. Customers must review and acknowledge the fact sheet before they can sign the demand response contract.
	Online Registration	Include the fact sheet as part of the online registration process for the VPP. Customers must download and confirm receipt of the fact sheet before completing the registration.
	Phone Call Follow-Up	For customers onboarded via phone, follow up with an email or text message containing a link to the fact sheet. This ensures that customers have a digital copy for reference.

These methods aim to accommodate different customer preferences and ensure compliance with the requirements outlined in the Method Guide.

4. **What records could be kept as evidence that fact sheet requirements have been met?**
We question the necessity of providing evidence that the fact sheet was sent, as this is inconsistent with other activities requiring a fact sheet, such as those under the Home Energy Efficiency Retrofits (HEER) method in the Energy Savings Scheme. This requirement has typically been addressed during the ACP accreditation process of these activities.

However should you proceed with this requirement and given the various methods for delivering a fact sheet to consumers, described in the answer above, IPART should remain flexible in their acceptance of evidence. Possible records could include:

- Email receipts
  - Confirmation emails indicating that the fact sheet was sent and received.
- Signed acknowledgements
  - Digital or physical signatures from customers confirming receipt of the fact sheet.
- Portal access logs
  - Records showing customer access to the fact sheet through an online portal.
- Physical mail receipts
  - Proof of mailing the fact sheet, such as postage receipts.
- Call logs and follow-up communications
  - Records of phone calls where the fact sheet was discussed and any subsequent emails or texts with a link to the fact sheet.

If the fact sheets are to be executed by the Retailer for BESS2 for example, we would be interested to hear from Retailers how practical it would be for them to provide evidence to an ACP (especially if they we are expected to comply with a window). Having a retailer comply within an evidence request window would be somewhat unreasonable.

Having a customer complete this step, by sending the evidence of the Fact sheet being received, would be preferred however you do add an additional complexity to the customer.

5 Capacity holder nomination requirements

1. **Do you see any issues or problems with the proposed nomination specification?**
   The proposed nomination specification appears comprehensive and well-structured. However, the requirement for a signed contract might not always be feasible. In many cases, particularly for retail contracts, there might not be a physical or digital signature, as the agreement could be captured through recorded calls. Therefore, IPART should consider accepting alternative forms of evidence, such as recorded verbal agreements, to accommodate the varied practices in the industry.

   Many of the issues and limitations previously discussed for the Fact Sheet apply to nomination requirements.

2. [redacted]

[redacted]

3. **Do you see any issues or problems complying with the Method Guide Representative Requirements for DRAs? How could these issues or problems be overcome?**
   The Method Guide Representative Requirements for DRAs, particularly the requirement to retain a register of representatives and ensure their training, might pose challenges, especially for DRAs that are also energy retailers with high staff turnover. This requirement could be difficult to manage and maintain.
   One solution could be to allow flexibility in the evidence required, such as accepting records of completed training modules rather than maintaining a full register of representatives. Additionally, IPART could consider periodic audits instead of continuous monitoring to reduce the administrative burden on DRAs.

6 Evidence requirements

6.1 BESS1- and BESS2-specific eligibility requirements

1. **Are the examples in the Method Guide practical?**
   Yes, the examples of evidence that may prove eligibility requirements are met appear to be practical.

2. **Do you see any issues or problems with the proposed examples?**
   As noted in our earlier feedback, the requirement for geo-tagging photo evidence for BESS2 could pose challenges for residential customers. This may result in a back-and-forth process between the ACP and the customer if the photos are not properly geo-tagged, necessitating additional technical support from ACPs to guide customers through the process.

3. **Are there other ways you could evidence that requirements have been met?**
   To increase the accessibility of the BESS2 activity, especially considering the relatively lower certificate creation and rebate value, it is important to streamline the evidence requirements. For example, an enhancement can be made to BESS2 Eligibility Requirement 1 (noting the typo of BESS1 in the figure below, which is taken from Table B.8).

   By adding the following evidence option:

   - A geo-tagged photo of the switchboard showing that a battery is installed

   This approach allows an ACP to satisfy both requirements with a single photo, thereby simplifying the process and making it more efficient.

There is an existing battery installed at the same National Metering Identifier (NMI)	A geo-tagged photo of the existing battery.	BESS1 Eligibility Requirement 1	Section 8.3
A behind the meter solar photovoltaic system must be installed at the same NMI that the new EUE is being installed	Evidence of a solar photovoltaic system at the same NMI. For example: • a geo-tagged photo of the solar photovoltaic system installed at the site, • evidence of the DER Register showing that a solar PV system has been installed at the NMI, or • a geo-tagged photo of the switchboard showing that a PV system is installed.	BESS2 Eligibility Requirement 2	Section 8.3

Figure 4 Extract from Table B.8 Evidence requirements - activity BESS2

6.2 Equipment requirements

1. **Are the examples in the Method Guide practical?**
   Yes, the examples of evidence that may prove equipment requirements are met appear to be practical.

2. **Do you see any issues or problems with the proposed examples?**
   We do not see any significant issues with the proposed examples of Equipment requirement evidence. However, we would like to comment on BESS2 and the concept of physical and implied evidence.

   In the Other Feedback section, we discuss the approach used by the Retailer Energy Productivity Scheme (REPS), where the activity involves connecting a new or existing battery to an approved Virtual Power Plant (VPP). A VPP is approved by the Minister and must provide information as outlined in Appendix 1.

   Although this may seem like an additional step, it streamlines the process. The approval of the VPP by the Minister serves as evidence for several installation and product requirements, as these are assessed during the VPP approval process.

   For example, in the BESS2 activity, the requirement that "*Participation through the demand response contract must not void or diminish the EUE's warranty below a guarantee of at least 70% of usable capacity being retained 10 years from the installation date*" could be covered if this criterion were part of the DRA/VPP approval process in NSW. This approach ensures that some requirements are inherently met through the VPP's initial approval, simplifying the evidence collection process for consumers and ACPs.

3. **Are there other ways you could evidence that requirements have been met?**
   No comment.

4. **For BESS1, would a declaration signed by the customer (after implementation) confirming installation details and their satisfaction with the installation be useful for evidencing requirements have been met? Do you see any issues with introducing this requirement?**
   A declaration co-signed by the customer and installer could be most useful for evidencing that implementation requirements have been met, while acknowledging this question is in the equipment requirements section. This approach is similar to the post-implementation declaration used in the Home Energy Efficiency Retrofits (HEER) method:

Table 4.10 Minimum required records - **activities D17, D18, D19, D20** and **D21** (replace a water heater with a heat pump or solar water heater)

Requirement	Document	Description
Eligibility requirements	Site assessor declaration **and**	The declaration: • may be based on the template provided on the ESS website • must be completed and signed by the person who identifies that the eligibility requirements are met.
	Geo-tagged photograph(s)	The photograph(s) must show the existing equipment installed at the site is an electric resistance storage (activities D17 and D18), gas storage (activities D19, D20 and D21) or instantaneous water heater.
Equipment requirements	Tax invoice **and**	The document must show the product make and model number of the new equipment installed.
	Product acceptance by the Scheme Administrator	Refer to the *Product acceptance page* published on the ESS website.
Implementation requirements	Post implementation declaration **and**	The declaration: • may be based on the template provided on the ESS website • must be completed and signed by the qualified licence holder that performs or supervises the installation of the activity • must be co-signed by the purchaser. Where there are two qualified licence holders involved in the installation, they must both co-sign the declaration.
	Geo-tagged photograph(s)	The photograph(s) must show: • the new equipment installed at the site • the make and model number of the new equipment.

Figure 5 Extract from HEER Method Guide

The advantages of a co-signed declaration include:

- Verification of Installation Details
  - The declaration would provide formal verification that the installation was completed as specified, ensuring transparency and accountability.
- Customer Satisfaction
  - Including a statement of customer satisfaction helps ensure that the installation meets the consumer's expectations and provides an opportunity to address any issues promptly.
- Documentation of Compliance
  - This document serves as a formal record that all requirements have been adhered to, which can be particularly useful for audits and quality assurance processes.

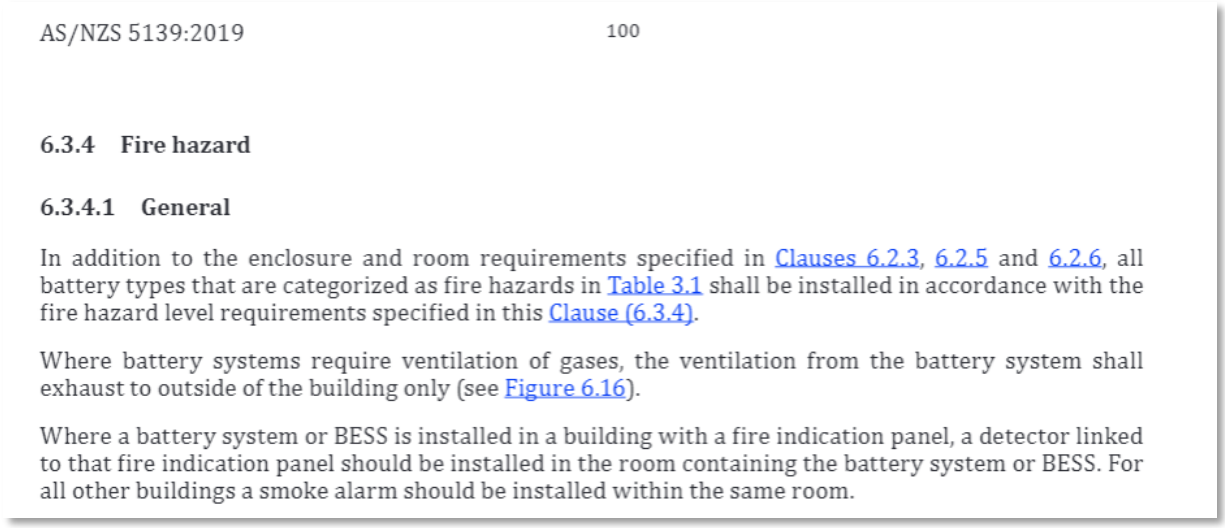
5. **How would you evidence the BESS2 Life Support requirement?**
   The customer declaration proposed is one practical option for evidencing this requirement. There are some scenarios where the DRA will also be the Electricity Retailer and will have access to market information about the consumer. This means they may be able to provide evidence from market systems such as AEMO's Market Settlement and Transfer Solutions (MSATS) that could satisfy this requirement.

6. **How would you evidence that EUE is internet connectable and controllable by a DRA?**
   No comments.

6.3 Implementation requirements

1. **Are the elements of AS/NZS 5239 we have focused on appropriate? Should we include other elements of AS/NZS 5239?**
   Yes, the elements focused on seem appropriate.

Our only comment pertains to the requirement that "*where the new EUE is installed indoors, a working smoke alarm that meets AS 3786 must be installed in the immediate vicinity*." This requirement exceeds the AS/NZS 5139:2019 standard, which states that a smoke alarm only 'should' be installed, rather than 'must.'



AS/NZS 5139:2019 100

6.3.4 Fire hazard

6.3.4.1 General

In addition to the enclosure and room requirements specified in Clauses 6.2.3, 6.2.5 and 6.2.6, all battery types that are categorized as fire hazards in Table 3.1 shall be installed in accordance with the fire hazard level requirements specified in this Clause (6.3.4).

Where battery systems require ventilation of gases, the ventilation from the battery system shall exhaust to outside of the building only (see Figure 6.16).

Where a battery system or BESS is installed in a building with a fire indication panel, a detector linked to that fire indication panel should be installed in the room containing the battery system or BESS. For all other buildings a smoke alarm should be installed within the same room.

Figure 6 Extract from AS/NZS 5139:2019

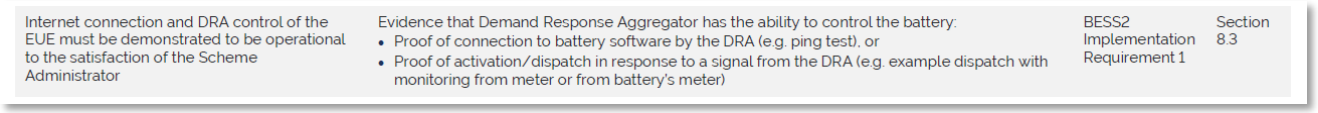
Suggestion:
Providing additional guidance and justification within the method guide would be useful for discussing this requirement with customers and installers, particularly as it will incur additional costs.

2. **Are the evidence requirements in the Method Guide relating to AS/NZS 5239 practical for you and your installers to meet?**
   Yes, the evidence requirements relating to AS/NZS 5239 are practical. They align with what is typically collected for battery installations.

3. **If you are already installing batteries, what are your current systems and processes to ensure installations are meeting AS/NZS 5139 and what records do you currently keep?**
   To ensure compliance with AS/NZS 5139, our current systems and processes primarily focus on the design phase of a battery installation. Accredited designers, who are well-versed in AS/NZS 5139 standards, meticulously plan each installation to meet these requirements.

   Once the design is completed, we have a robust process to verify that the installation adheres to the approved design. This involves requesting detailed photos from the installers, which serve as evidence that the system has been installed correctly and in accordance with the design specifications. This method, while slightly different from a direct compliance check during installation, achieves the same objective of ensuring adherence to AS/NZS 5139 standards.

4. **For other BESS1 and BESS2 implementation requirements, are the examples in the Method Guide practical?**
   For the majority of the BESS1 and BESS2 implementation requirements the examples are practical and achievable. The only requirement that may not be practical to achieve, particularly in the time frames for evidence discussed in the method, is:



Internet connection and DRA control of the EUE must be demonstrated to be operational to the satisfaction of the Scheme Administrator	Evidence that Demand Response Aggregator has the ability to control the battery: • Proof of connection to battery software by the DRA (e.g. ping test), or • Proof of activation/dispatch in response to a signal from the DRA (e.g. example dispatch with monitoring from meter or from battery's meter)	BESS2 Implementation Requirement 1	Section 8.3

   This evidence requirement will be the focus of our responses in the following questions.

5. **Do you see any issues or problems with the proposed examples?**
   Yes, while the majority of the BESS1 and BESS2 implementation requirements are practical and achievable, there are significant concerns with the requirement that internet connection and DRA control of the EUE must be demonstrated to be operational to the satisfaction of the Scheme Administrator. The proposed methods for evidencing this—either through proof of connection to battery software by the DRA (e.g., ping test) or proof of activation/dispatch in response to a signal from the DRA—present several challenges.

   For the ping test, the customer must have an appropriate meter, and the DRA/VPP will need to organise API access to the battery. Both of these activities can take a number of weeks to complete. This extended timeline may conflict with the evidence submission deadlines discussed in the method, making it impractical to achieve within the specified time frames.

   Furthermore, coordinating these activities involves multiple parties and steps, adding complexity to the process and potentially causing delays that could hinder timely compliance.

6. **Are there other ways you could evidence that requirements have been met?**
   Yes, there are alternative methods to evidence that requirements have been met, which could streamline the process and reduce the burden on all parties involved.

   For the requirement being discussed, we support the idea of pre-approved DRA/VPP's as an alternative method to evidence that requirements have been met. This approach is already used in South Australia's VPP activity and has proven to be effective. Pre-approval of VPPs by the Scheme Administrator can streamline the evidence submission process by certifying the VPP/DRA's capability to control the battery from the outset. This method can alleviate the need for individual verifications for each installation.

   Pre-Approved Systems:

   - **Pre-Approval Certification:** The Scheme Administrator can conduct a thorough initial certification process for VPPs and DRAs, ensuring they meet all technical and operational requirements to control the battery. Once certified, these VPPs/DRAs would be considered pre-approved for the scheme.

- **Regular Audits:** To maintain the integrity of the pre-approved status, the Scheme Administrator can perform regular audits or checks on these VPPs/DRAs to verify ongoing compliance. This ensures that the pre-approved entities continue to meet the required standards.
- **Simplified Evidence Submission:** For pre-approved VPPs/DRAs, allow a streamlined evidence submission process. For example, initial certification documents and periodic audit reports can be leveraged for individual installations, reducing the need for repeated verification efforts.

In addition to the pre-approved systems, Remote Verification could further simplify the evidence process. Remote Verification could include utilising remote diagnostic tools provided by the battery manufacturer or DRA/VPP to verify the connection and control capabilities. This could include screenshots or reports generated by the battery management system showing successful communication and control attempts.

Implementing these alternative methods would provide flexibility and reduce the complexity and delays associated with the current proposed evidence requirements. It would also ensure that the evidence collection process is more practical and achievable within the required time frames.

7 Appendix 1 – Extract of SA Department for Energy and Mining's application questions for becoming an Approved VPP

Source:
https://www.energymining.sa.gov.au/__data/assets/pdf_file/0007/673819/Application_guide_VPP1.pdf

1. About this guide

Use this guide to apply for eligibility approval for delivering a VPP activity under the REPS.

Completed application and supporting documentation should be submitted to dem.reps@sa.gov.au

2. Questions - VPP

Applications for approval must include the following information:

Description of VPP

1. Name of your VPP
2. Is it an existing or new VPP? If existing, please provide the total number of connections and total number of South Australian connections.
3. Has your VPP been approved under any other program? Please provide details.
4. Describe your business plan for your VPP, including:
    - connection goals in the next year and next 5 years
    - any maximum connection numbers
    - the VPP value streams and where there is a minimum number of connections necessary to access these value streams
    - how the coordination of your VPP is achieved (i.e. control hardware, software, communications connection, and operational capacity and capability for orchestration)
    - what battery systems are eligible for your VPP and are they approved as meeting the "Equipment Eligibility Criteria Configuration Options and Component Descriptions for a HBS-compliant battery system"?
    - verification processes in place to ensure the suitability of any 'bring your own' battery systems.
5. Does your VPP comply with all requirements in activity specification VPP1? If not, please describe any variances from the specification.
6. Describe your approach to quality, safety and cyber security in relation to the operation of the VPP.

Customer Offering

7. Describe the value proposition for a customer connecting to your VPP.
8. Outline the customer contract length, and terms and conditions offered in your VPP.
9. What customer protection provisions are offered in your VPP?

VPP Partners

10. Identify any third party involved in the management or coordination of the VPP fleet
11. Do you have an arrangement with a REPS-obligated retailer who intends to claim normalised GJs against its target(s) using your VPP?

1