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| Install and connect a Community Battery to an approved Virtual Power Plant – in front of customer meter only | Activity No. |
| | CB1 |

1. ACTIVITY SPECIFIC DEFINITIONS

Approved Virtual Power Plant (VPP) is a VPP approved by the Minister or their delegate.

Battery means a battery storage system (BESS) as defined by the latest version of AS-NZS-5139-2019.

Community Battery (CB) means one or more batteries installed and orchestrated in the distribution network and in front of customer's meter, that are primarily operated together to store energy, supply electricity into the grid, and facilitate the provision of a Community Battery Tariff to households.

Community Battery Tariff means a Household Electricity Plan tariff structure which is priced lower than the Default Market Offer associated with a Community Battery, as approved by the Minister or their delegate.

Default Market Offer (DMO) means the maximum price that retailers can charge electricity customers on default contracts known as standing offer contracts. DMO is set by the Australian Energy Regulator (AER).

Distributed Energy Resources (DER) mean devices that, as individual units, can generate or store electricity or have the 'smarts' to actively manage energy demand. DERs can be Batteries, hot water systems etc.

Meter means an accumulated meter as the Australian Energy Market Operator (AEMO) defines. Meter is a device complying with Australian Standards, containing a measurement element(s) and a record of the accumulated quantity of the electricity flowing through the power conductor.

Orchestration Agreement means a binding agreement between the battery owner and the VPP operator providing the latter rights to orchestrate the former's Community Battery. It must specify the proportion of the total contract duration allocated to the VPP operator for Orchestration.

Orchestration means the VPP operator has a

- right to operate the aggregated Distributed Energy Resources
- telecommunications ability to remotely coordinate the injection and withdrawal of energy from distributed energy resources on the distribution network, (e.g. batteries, hot water heater) that can manage and shift demand of electricity
- commercial capacity to trade the aggregated electricity in energy markets.

Priority Group Household is as defined by Regulation 23(1) of the *Electricity (General) Regulations 2012* and Regulation 17(1) of the *Gas Regulations 2012*.

Priority Group Tariff Agreement - a binding agreement between the battery owner and/or the VPP operator and an energy retailer obliging the energy retailer to offer a Community Battery Tariff to priority group households.

Tariff Agreement – a binding agreement between the battery owner and/or the VPP operator and an energy retailer obliging the energy retailer to offer a Community Battery Tariff to households.

Time of Use (ToU) Periods are as defined by the retailer the household has a Household Electricity Plan with. ToU Periods classify times of day by electricity demand and prices.

Virtual Power Plant (VPP) means an aggregated set of multiple distributed energy resources on the distribution network and behind customer's meter that are orchestrated.

2. ACTIVITY DESCRIPTION (SUMMARY)

Install a Community Battery and connect it to an Approved VPP which will offer a community battery tariff to households.

3. ACTIVITY ELIGIBILITY REQUIREMENTS

- (1) Community Battery should be in the SAPN distribution network, in front of customers' meters. Battery may be located at the same site as a substation, if it is outside the Distributed Network Service Provider's (DNSP) Regulated Asset Base (RAB).
- (2) Any additional requirements from Minister or their delegate for approval of the VPP.
- (3) Evidence is required that Community Battery has been connected to a VPP operator which has orchestration. In circumstances where the VPP operator is not the battery owner, evidence of an orchestration agreement is required.
- (4) Evidence that the Community Battery will primarily be operated to facilitate the provision of a Community Battery Tariff to households, including:
 - A written undertaking from the retailer – if the retailer is the battery owner and the VPP operator; or
 - In all other circumstances – a tariff agreement
- (5) Community Batteries with an aggregated size of over 200 kW must comply to the requirements listed for Battery Energy Storage Systems (BESS) in the Australian Energy Market Operator's (AEMO) *Technical Requirements for 200 kW to 5 MW DER Connections*.
- (6) Community Batteries must comply to the technical performance standards for sub-5 MW DER systems as defined through the SA Power Networks (SAPN)'s connection requirements.
- (7) The Community Battery and applicable supporting equipment must be registered as a DER device in AEMO's *Distributed Energy Resources (DER) register*.
- (8) The VPP operator should be registered as an Integrated Resource Provider (IRP) with AEMO. If exempt, they must be registered as a Small Resource Aggregator (SRA) or as an Integrated Resource Provider – Small Resource Aggregator (IRP-SRA) under the National Electricity Market, as defined by AEMO.
- (9) Evidence that the VPP operator should be a direct market participant, registered with AEMO or evidence that the VPP operator is in a contract with a direct market participant sufficient to trade energy equal or greater to the aggregated capacity of all DER orchestrated by the VPP.
- (10) For Priority group households only:
 - For GJ achieved from undertaking this activity to be used towards a retailer's priority group sub target, a retailer must undertake or be under a contractual obligation to sign up a cohort of priority group households to a community battery tariff
 - Evidence is required that the community battery will primarily be operated to facilitate the provision of a Community Battery Tariff to priority group households, including:
 - A written undertaking from the retailer – if the retailer is the battery owner and the VPP operator; or
 - In all other circumstances – a priority group tariff agreement

4. INSTALLED PRODUCT REQUIREMENTS

- (1) Battery must be installed in accordance with the requirements of the latest version (at the time of installation) of AS/NZS 5139:2019 (Electrical installations - Safety of battery systems for use with power conversion equipment).
- (2) Each Community Battery must have a capacity of greater than or equal to 100 kW and less than 1MW.
- (3) Systems shall be provided with the following minimum warranties at the time of installation:
 - a. Battery Energy Storage Systems (BESS) or Battery System (BS): 7 years under daily cycling operation.
 - b. Any inverter: 5 years.
 - c. Balance of system (e.g. enclosures): 5 years.
 - d. Workmanship: 5 years.
 - e. Whole of system: 5 years.

5. MINIMUM INSTALLATION REQUIREMENTS

- (1) The activity connection must be installed and maintained in a manner consistent with the equipment, orchestration, and contractual requirements of the Approved VPP.
- (2) Solar Accreditation Australia (SAA) must accredit the system installer.
- (3) System uses equipment supplied and installed in accordance with all relevant Australian and State Laws and regulations and all relevant Australian and International Standards, including, without limitation:
 - a. AS/NZS 4777 – Grid connection of energy systems via Inverters.
 - b. AS/NZS 5139:2019 Electrical installations - Safety of battery systems for use with power conversion equipment

6. NORMALISED REPS GIGAJOULES

The normalised REPS Gigajoules (credits) achieved from undertaking this activity is equal to:

Normalised REPS Gigajoules = Productivity factor per kWh x battery capacity x REPS Transition Factor (as per table below)

ACTIVITY CB1 – PRODUCTIVITY FACTOR

Productivity factor = 27.04 per kWh of battery capacity

ACTIVITY CB1 – REPS TRANSITION FACTORS

| Year of connection to an approved VPP | REPS Transition Factors |
|---------------------------------------|-------------------------|
| 2025 | 2.5 |
| 2026 | 2.5 |
| 2027 | 2 |

| | |
|------|-----|
| 2028 | 1.5 |
| 2029 | 1 |
| 2030 | 1 |

Where an electricity retailer undertakes or is under a contractual obligation to sign up a cohort of priority group households to a community battery tariff, a percentage of the normalised GJ achieved, from undertaking this activity, as approved by the Minister, can be used towards the REPS priority group sub target.

The percentage of normalised GJ created that can be assigned to the REPS priority group sub target, will be linked to the undertaking or contractual obligation. For example – if the retailer’s contractual obligation is for only priority group households to be signed up it would be 100% of the GJ created; or if the retailer commits to 50% customers being priority group then 50% of the GJ created could be assigned toward the REPS priority group sub target.

7. GUIDANCE NOTES (INFORMATIVE ONLY – NOT MANDATORY)

Productivity factors assume the VPP is charging during low-cost periods and discharging during high-cost periods.

Battery may be located at the same site as a substation but outside the DNSP’s Regulated Asset Base (RAB).

The Minister or their appointed delegate may approve VPPs and Community Battery Tariffs.

In approving an Approved VPP, the Minister may consider requirements including but not limited to the VPP’s:

- Customer contract length, terms and conditions;
- Demonstrated commercial capacity and capability, intent and practice to orchestrate battery operation for the duration and frequency required;
- Control hardware, software and communications connections and operational capacity and capability for VPP Orchestration;
- Product and installation quality and safety provisions;
- Potential impact on the community and environment; and
- Consumer protection provisions.

In approving a Community Battery Tariff, the Minister may consider requirements including but not limited to:

- demonstrated commercial capacity and capability, intent and practice of the electricity retailer to provide the Community Battery Tariff to non-priority group or priority group households.
- The discount percentage (discounted compared to the DMO) in the Community Battery Tariff to be given to the household.

Demand response and VPP activities (APP4, EV1, CB1, HC2C, VPP1 & WH4) are **not** mutually exclusive.

Example of how credits would be calculated for this activity (CB1) is given below:

E.g. If a Community Battery with a capacity of 225 kWh is part of an Orchestration Agreement, Normalised REPS Gigajoules for activity CB1 = 27.04 x 225 x 2.5 = 15210 credits