# Jemena Electricity Networks (Vic) Ltd

## SolShare Embedded Generation Connection Guideline <200kVA (three phase)

ELE-999-GL-EL-016

Jemena
bringing energy to life

**An appropriate citation for this paper is:**

SolShare Embedded Generation Connection Guideline <200kVA (three phase)

**Copyright statement**

© Jemena Limited. All rights reserved. Copyright in the whole or every part of this document belongs to Jemena Limited, and cannot be used, transferred, copied or reproduced in whole or in part in any manner or form or in any media to any person other than with the prior written consent of Jemena.

**Printed or downloaded copies of this document are deemed uncontrolled.**

**History**

| Rev No | Date | Description of changes | Author |
|---|---|---|---|
| 1 | 27/08/2026 | Initial release | T. Li |

**Owning Functional Area**

| | |
|---|---|
| Business Function Owner: | Electricity Distribution – Asset & Operations |

# Glossary

| | |
|---|---|
| Connection Point | Point at which the Jemena's service cable or supply main connects to the customer's terminals. Also known as Point of Supply or Point of Connection. |
| Customer | Owner / operator of the Inverter Energy System and SolShare/ IPSD, normally Body Corporate or Owners Corporation |
| CSIP-AUS | CSIP-AUS means the Common Smart Inverter Profile Australia, SA HB 218:2023 Handbook, published by Standards Australia on 16 June 2023 and as amended from time to time or if superseded, the document(s) listed by Standards Australia as superseding the SA HB 218:2023 Handbook |
| Emergency Backstop Enablement | Emergency backstop enablement means, that the IES unit is –<br>a) able to communicate with Jemena's utility server via a communication channel that is compliant to CSIP-AUS; ***AND***<br>b) connected to the licensee's utility server via the internet –<br>to enable the remote interruption or curtailment of electricity generated by the IES unit; |
| Inverter Energy System | A system comprising one or more inverters together with one or more energy sources and controls, where the inverter(s) satisfies the requirements of AS/NZS 4777.2. |
| Point of Common Coupling | Nearest common point in Jemena's distribution network that connection is made between two or more customers' electrical installations. |
| Service Protection Device | A protection device usually a fuse or circuit breaker which is the isolation point between Jemena's distribution network and the customer main switchboard. Also known as Supply Protection Device. |
| Inverter Power Sharing Device | A device used to share the supply from an inverter or multiple inverters to provide supplies to a number of electrical installations that are part of a multiple electrical installation. |

# Abbreviations

| | |
|---|---|
| CSIP-AUS | Common Smart Inverter Profile Australia |
| EBE | Emergency Backstop Enablement |
| EDCoP | Victorian Electricity Distribution Code of Practice |
| IES | Inverter Energy System |
| JEN | Jemena Electricity Networks |
| LV | Low voltage (i.e. 400 V) |
| NMI | National Meter Identifier |
| PV | Photovoltaic |
| SIR | Victorian Service and Installation Rules |
| SLD | Single Line Diagram |
| SPD | Service Protection Device or Supply Protection Device |
| UPS | Uninterruptable Power Supplies |
| IPSD | Inverter Power Sharing Device |
| COES | Certificate of Electrical Safety |
| EWR | Electrical Works Request |
| VESC | Victorian Essential Service Commission |
| BC | Body Corporate |
| OC | Owners Corporation |

# Overview

These guidelines provide an overview of the connection process and technical requirements for customers wanting to connect less than 200 kVA three-phase Inverter Energy Systems and SolShare or Inverter Power Sharing Device (IPSD) to the JEN distribution network at low voltage (i.e. 400 V) and should be read in conjunction with the requirements of AS/NZS 4777 “Grid connection of energy systems via inverters”.

In all cases, the more onerous of the requirements between these guidelines, the AS/NZS 4777 and other applicable standards shall be applicable.

All requirements relating to emergency backstop enablement apply to all connection applications made from 1 October 2024.

# 1. Connection process and requirements

## Staging of process

The online embedded generation (EG) connection application must be submitted, and the connection agreement must be entered into, prior to proceeding with on-site installation and commissioning.

- **Important:**
  All online applications for solar installations involving SolShare (irrespective of system capacity) must be submitted in Jemena's online portal (My Portal) by selecting 'Yes' for 'Does the installation have an Inverter Power Sharing Device (IPSD) such as SolShare?'
- All SolShare applications at Jemena go through the negotiated connection process with applicable application fees.
- All EG connection applications are required to follow Jemena's guidelines published on Jemena's website.

  NOTE: For installations with total inverter capacity below or equal to 30 kVA, follow 'Connection Guidelines for Inverter Energy Systems ->30kVA to <5MVA (ELE GU 0014)' on Mid-scale embedded generators (>30kVA-<1MVA) | Jemena.

## Online embedded generation SolShare application process

1. Apply for a network exemption from the Victorian Essential Service Commission (VESC) for the site's customer / Body Corporate/ Owners Corporation. This is a process that can be completed by following the steps provided in Allume Solshare's website.

2. Apply for a connection application of embedded generation at Jemena | My Portal (Select New Application -> Electricity-> 'Approve My Electricity Generation or Battery Storage').

   - Select total site proposed inverter capacity (either 0-30kVA or >30-200kVA).
   - Enter NMI (11 digits) – use the common light and power NMI owned by the body corporate (always use common light and power NMI even if it is not part of the SolShare electrical connection).
   - Select 'Yes' for 'Does the installation have an Inverter Power Sharing Device (IPSD) such as SolShare?'
   - Attach the following documents:

   a) Single line diagram (SLD) showing:

      - voltage rise calculations
      - all inverters
      - all SolShare units
      - pad-lockable main solar switch
      - utility meters (common light and power meter and all apartment meters)
      - point of supply
      - phase wiring
      - Australia A inverter settings
      - table of all NMIs and meter numbers
      - table of PV system details
      - NOTE: For a site with >30kVA aggregated inverters connected to all SolShare units, ensure SLD shows interface protection relay and includes interface protection settings. Please also provide the protection schematics of interface protection relay, and include the secondary injection testing tables of the interface protection relay in the commissioning plan.

   b) Site layout (showing symbols for inverter, SolShare, MSB, point of supply and connecting cables at their physical location)

c) A SolShare Anti-Islanding Functionality Test Plan, with template available at this link (filled out with site-specific information)
d) A SolShare Commissioning Plan, with template available at this link (filled out with site-specific information)
e) CSIP-AUS is the emergency backstop method for typical SolShare applications. Please ensure that your site meet the CSIP- AUS requirements by having internet and all the inverters are on CEC's approved inverters list and Jemena's approved list of inverters. Please ensure that the CT meter of the solar energy management system is at the MSB close to point of supply on main incomer to the building.
f) Letter of authority from Body Corporate or Owners Corporation.

3. Pay for the application fee to complete the submission.

4. Email generation_enquiries@jemena.com.au and CC interconnections@allumeenergy.com.au and state in the email that you applied for the connection of a SolShare installation (provide address and NMI (common light and power NMI), and customer/body corporate contact details). Include in the email the following documents for the shared solar installation:

a) The network exemption application number from VESC, as per Step 1 above. Also provide a PDF copy of the formal exemption from VESC for this site's customer/body corporate.
b) Body Corporate (BC) or Owners Corporation (OC) to provide letter/ document confirming that BC/OC is the owner of SolShare/s in this installation and provide confirmation that there is no distribution of electricity across lot boundaries and that all SolShare installation wiring is in the common area for this site.
c) Electricity bill for the common light and power NMI.
d) A list of all NMIs connected to SolShare, and common light and power NMI, and corresponding unit number and meter number

5. During the technical assessment stage, Jemena may request for any missing required information that needs to be provided to further progress the application if all the above information have not been provided.

6. Once Jemena has confirmed by email that the design is acceptable and the technical assessment is completed, Jemena will issue a connection agreement on the online portal.

7. After the customer reviews and accepts the connection agreement and the applicant accepts the offer on the online portal on the customer's behalf, the customer can proceed with the installation and commissioning of the SolShare system.
    a. After the COES is issued, turning on the solar installation for temporary testing purposes is permitted. The following tests are allowed: SolShare anti-islanding test and SolShare commissioning test . If applicable, secondary injection test. However, after testing is completed, please turn off the solar installation.

8. Submit to Jemena the commissioning documents by emailing generation_enquiries@jemena.com.au and attaching:

- COES
- EWR
- SolShare anti-islanding test report (see template)
- SolShare commissioning test report (see template)
- Serial number of all inverters
- Australia A setting evidence
- Screenshot of maximum export limit setting
- Secondary injection test results (if applicable)

9. After Jemena reviews and approves of the commissioning documents, the applicant will be required to submit 'Commission my inverter' application to complete CSIP-AUS emergency backstop testing. The

solar installation can be turned back on temporarily for backstop testing. After testing is completed, the solar installation shall be turn off until Jemena issues authorisation to turn on notice.

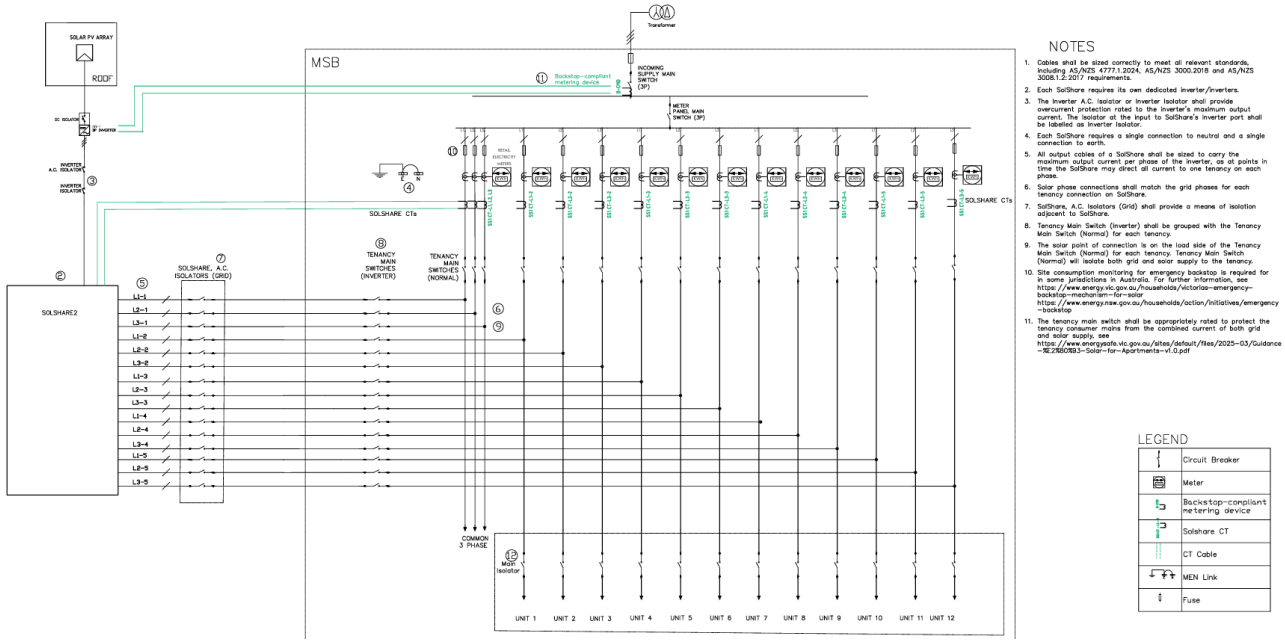
10. After the emergency backstop testing is successfully completed and internal database is updated, Jemena will issue an authorisation to turn on notice via email to the applicant.

11. After the authorisation to turn on notice is received, notify the customer's retailer of the change, (provide COES, EWR, ticket number, and a copy of the EG offer schedule), so that the meter reconfiguration can be initiated, and the appropriate tariff can be applied.

12. The solar installation SolShare system shall not be turned on until after all the meters are reconfigured by the customer's retailer. The retailer will advise the customer once the meter reconfiguration is completed.

# Appendix 1- Example SolShare Single Line Diagrams

## Single SolShare 2



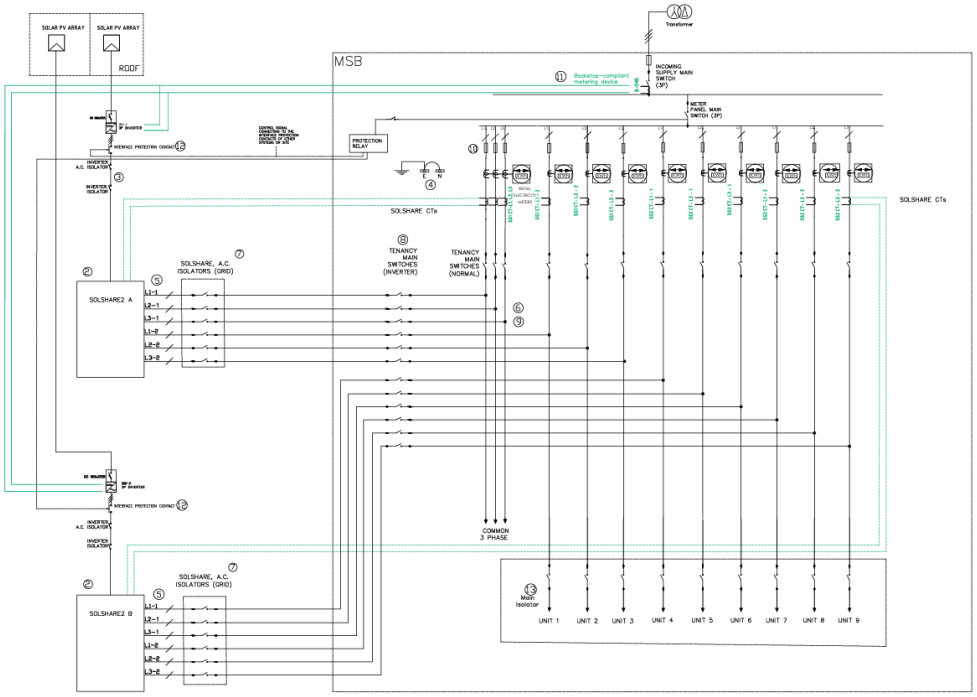

NOTES

1. Cables shall be sized correctly to meet all relevant standards, including AS/NZS 4777.1:2024, AS/NZS 3000:2018 and AS/NZS 3008.1.2: 2017 requirements.
2. Each SolShare requires its own dedicated inverter/inverters.
3. The Inverter A.C. Isolator or Inverter Isolator shall provide overcurrent protection rated to the Inverter's maximum output current. The Isolator at the input to SolShare's inverter port shall be labelled as Inverter Isolator.
4. Each SolShare requires a single connection to neutral and a single connection to earth.
5. All output cables of a SolShare shall be sized to carry the maximum output current per phase of the inverter, as at points in time the SolShare may direct all current to one tenancy on each phase.
6. Solar phase connections shall match the grid phases for each tenancy connection on SolShare.
7. SolShare, A.C. Isolators (Grid) shall provide a means of isolation adjacent to SolShare.
8. Tenancy Main Switch (Inverter) shall be grouped with the Tenancy Main Switch (Normal) for each tenancy.
9. The solar point of connection is on the load side of the Tenancy Main Switch (Normal) for each tenancy. Tenancy Main Switch (Normal) will isolate both grid and solar supply to the tenancy.
10. Site consumption monitoring for emergency backstop is required for in some jurisdictions in Australia. For further information, see https://www.energy.vic.gov.au/households/victorias-emergency-backstop-mechanism-for-solar https://www.energy.nsw.gov.au/households/action/initiatives/emergency-backstop
11. The tenancy main switch shall be appropriately rated to protect the tenancy consumer mains from the combined current of both grid and solar supply. see https://www.energysafe.vic.gov.au/sites/default/files/2025-03/Guidance-NE2760783-Solar-for-Apartments-v1.0.pdf

LEGEND

| | |
|---|---|
| | Circuit Breaker |
| | Meter |
| | Backstop-compliant metering device |
| | Solshare CT |
| | CT Cable |
| | MEN Link |
| | Fuse |

## Multiple SolShare 2 with interface protection relay




NOTES

1. Cables shall be sized correctly to meet all relevant standards, including AS/NZS 4777.1:2024, AS/NZS 3000:2018 and AS/NZS 3008.1.2: 2017 requirements.
2. Each SolShare requires its own dedicated inverter/inverters.
3. The Inverter A.C. Isolator or Inverter Isolator shall provide overcurrent protection rated to the inverter's maximum output current. The Isolator at the input to SolShare's inverter port shall be labelled as Inverter Isolator.
4. Each SolShare requires a single connection to neutral and a single connection to earth.
5. All output cables of a SolShare shall be sized to carry the maximum output current per phase of the inverter, as at points in time the SolShare may direct all current to one tenancy on each phase.
6. Solar phase connections shall match the grid phases for each tenancy connection on SolShare.
7. SolShare, A.C. Isolators (Grid) shall provide a means of isolation adjacent to SolShare.
8. Tenancy Main Switch (Inverter) shall be grouped with the Tenancy Main Switch (Normal) for each tenancy.
9. The solar point of connection is on the load side of the Tenancy Main Switch (Normal) for each tenancy. Tenancy Main Switch (Normal) will isolate both grid and solar supply to the tenancy.
10. Site consumption monitoring for emergency backstop is required for in some jurisdictions in Australia. For further information, see https://www.energy.vic.gov.au/households/victorias-emergency-backstop-mechanism-for-solar https://www.energy.nsw.gov.au/households/action/initiatives/emergency-backstop
11. Each SolShare shall be isolated by an individual contactor as part of interface protection. More information can be found in the Interface protection guidance for SolShare installations (accessed at https://info.allumeenergy.com/hubfs/ANZ/D370_NPU_Guidance_for_SolShare_Installations.pdf).
12. The tenancy main switch shall be appropriately rated to protect the tenancy consumer mains from the combined current of both grid and solar supply. see https://www.energysafe.vic.gov.au/sites/default/files/2025-03/Guidance-NE2760783-Solar-for-Apartments-v1.0.pdf
13. The tenancy main switch shall be appropriately rated to protect the tenancy consumer mains from the combined current of both grid and solar supply. see https://www.energysafe.vic.gov.au/sites/default/files/2025-03/Guidance-NE2760783-Solar-for-Apartments-v1.0.pdf

LEGEND

| | |
|---|---|
| | Circuit Breaker |
| | Meter |
| | Backstop-compliant metering device |
| | Solshare CT |
| | CT Cable |
| | MEN Link |
| | Fuse |