



Jemena Electricity Networks (Vic) Ltd

Embedded Generation Emergency Backstop Requirements Procedure

Also known as "Micro Embedded Generator Emergency Backstop
Procedures"



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Embedded Generation Emergency Backstop
Requirements Procedure

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Glossary

The terms used within this document are defined as follows:

Term	Definition
Basic embedded generation connection application	A connection application for micro embedded generator basic connection service, which covers a connection or a connection alteration involving micro embedded generator with the qualifying conditions set out in Jemena's Model Standing Offer for Micro Embedded Generator Basic Connection Services.
CEC listed and approved AS 4777.2, CSIP-AUS compliant inverters/ systems	The Inverters with Software Communication Clients list includes inverters that are considered to have a communication channel that is compliant to IEEE 2030.5 CSIP-AUS, either hosted locally on the inverter or a gateway device, or via a certified cloud connection to the network operator Utility Server. This list is based on testing conducted by South Australia Power Networks. Refer to link: Approved Inverters Clean Energy Council
CSIP-AUS	The Common Smart Inverter Profile Australia Technical Standard, SA TS 5573:2025, published by Standards Australia June 2025 and as amended from time to time or if superseded, the document(s) listed by Standards Australia as superseding the Standards Australia Technical Standard 5573:2025. SA TS 5573:2025 supersedes SA HB 218:2023, however SA HB218:2023 will remain current for 12 months from 27 June 2025
DEIP	Australia's Distributed Energy Integration Program steering committee supporting the adoption of CSIP-AUS for DNSPs.
IEEE 2030.5	IEEE Standard for Smart Energy Profile Application Protocol
Jemena's CSIP-AUS Approved Listing	The Jemena's CSIP-AUS Approved Listing contains CSIP-AUS inverters tested against Jemena's Utility Server
Low static export limit	A capped specified capacity to supply into the distribution system at all times of day and in all network operating conditions that is lower than the maximum export capability as set out in Jemena's Model Standing Offer or negotiated connection agreements
Negotiated embedded generation connection application	A connection application for embedded generator connection service and that does not involve basic embedded generation connection application. It is a service provided under a negotiated embedded generation connection contract agreed in accordance with Part C, Chapter 5A (or Part B of chapter 5) of the National Electricity Rules.
Network wide test	Network wide test refers to testing of all CSIP-Aus type EBE embedded generation units across Jemena's entire network where each network-wide testing duration is expected to last a cumulative total of less than 90 minutes within a 48-hour period. This test is to ensure that systems and platforms which remotely interrupt or curtail electricity generation function as expected during minimum system load emergency conditions and seek to understand capacity available of all EBE systems on JEN.
Small, Medium and Large Embedded Generation Installations	Small embedded generation generally refers to system sizes of up to 30kVA, taken as aggregate at the point of connection; Medium embedded generation generally refers to system sizes greater than 30kVA and up to 200kVA, taken as aggregate at the point of connection; and Large embedded generation refers system sizes greater than 200kVA, taken as aggregate at the point of connection.
Subnetwork test	Subnetwork test refers to individual testing of each embedded generation unit undertaken by Jemena to satisfy itself that Jemena (including its Utility Server) is capable of remotely interrupting or curtailing electricity generation of an embedded generation unit.
Utility Server	Jemena's CSIP-AUS compliant control server that will test inverters against

Abbreviations

The abbreviations used within this document are defined as follows:

Abbreviation	Description
AEMO	Australian Energy Market Operator
AMI	Advanced Metering Infrastructure
CEC	Clean Energy Council
CSIP	Common Smart Inverter Profile
CSIP-AUS	The Common Smart Inverter Profile for Australia,
DEECA	Department of Energy, Environment and Climate Action
DEIP	Distributed Energy Integration Program
DER	Distributed Energy Resource
DNSP	Distributed Network Service Provider
DoE	Dynamic Operating Envelope
EBE	Emergency Backstop Enabled
EG	Embedded Generator or Embedded Generation
ESC	Essential Services Commission
GMM	Generation Monitoring Meter
JEN	Jemena Electricity Network
IEEE	Institute of Electrical and Electronics Engineers
LFDI	Long Form Device Identification
MD	Maximum Demand
MSL	Minimum System Load
MSO	Jemena's Model Standing Offer
MVP	Minimal Viable Product
NMI	National Meter Identifier
OEM	Original Equipment Manufacturer
O&M	Operations and Maintenance
VPP	Virtual Power Plant

1. Purpose and Scope

This document outlines the requirements and related processes and procedures Jemena has implemented for external stakeholders, i.e., inverter Original Equipment Manufacturers (OEM), Customers, and Installers, regarding Embedded Generation (EG) and Emergency Backstop Enabled (EBE) systems.

This document covers all EBE systems, which is now required for all photovoltaic EG connections to Jemena's distribution network from 1 October 2024 onwards.

2. Background

The Victorian Government have mandated regulatory obligations as part of Jemena Electricity Network's (JEN's) Distribution Licence regarding implementing and operating an EG Emergency Backstop Mechanism.

The Emergency Backstop Mechanism is required by the Australian Energy Market Operator (AEMO) and is a means by which the power generated by EG connected within a Distribution Network Service Provider's (DNSP) network can be remotely curtailed (or switched off) by the DNSP (at the direction of AEMO) during Minimum System Load (MSL) emergency events.

Connection systems and processes for basic and negotiated connections need to support the adoption of the Emergency Backstop Mechanism for our customers wanting to connect EG to our network. Furthermore, ongoing operations and maintenance of the Emergency Backstop Mechanism will be required.

JEN introduced three solution options to enable the Emergency Backstop for new and modified EG installations, these being Dynamic Operating Envelop (DoE) over SCADA for larger EG installations, CSIP-AUS for smaller EG installations, and Generation Monitoring Meter (GMM) for bespoke installations (at the discretion of JEN).

2.1 What is EBE?

The Emergency Backstop Mechanism referenced above is referred to and/or otherwise known as a site's or EG system's EBE capability.

Jemena will verify EBE functionality on all EG connection applications. During the connection process, if Jemena cannot satisfactorily verify EBE, then an EG, depending on its installed capacity and export capacity, will either still be allowed to connect provided it passes all other regulations and standards such as AS4777.2 and AS3000, but a "low static export limit" will be applied or will not be allowed to connect. This ensures that the site does not generate above the allowed limit as it is unable to be effectively controlled.

If a site is EBE compliant, Jemena will allow it to export power above the "low static export limit" provided there is export capacity available. Any site failing EBE verification will either have a "low static export limit" enforced OR not be allowed to connect.

2.2 Jemena's Approved EBE Types

Jemena has approved the following EBE solution types:

- CSIP-AUS
- Generation Monitoring Meter (GMM)
- DoE over SCADA

The EBE types that are compatible with different sizes of generators are presented in Table 2-1.













System size (kVA)	Example of who this system might be for	Communication type			Likely connection method *	Connection type
		Internet	AMI	SCADA		
0- 30 kVA	The majority of households / small businesses				CSIP-AUS	Basic
>30 kVA – 200 kVA	Small business				CSIP-AUS	Negotiated
					GMM	
>200 kVA	Larger businesses				DOE over SCADA	

Table 2-1: Emergency Backstop EG Thresholds

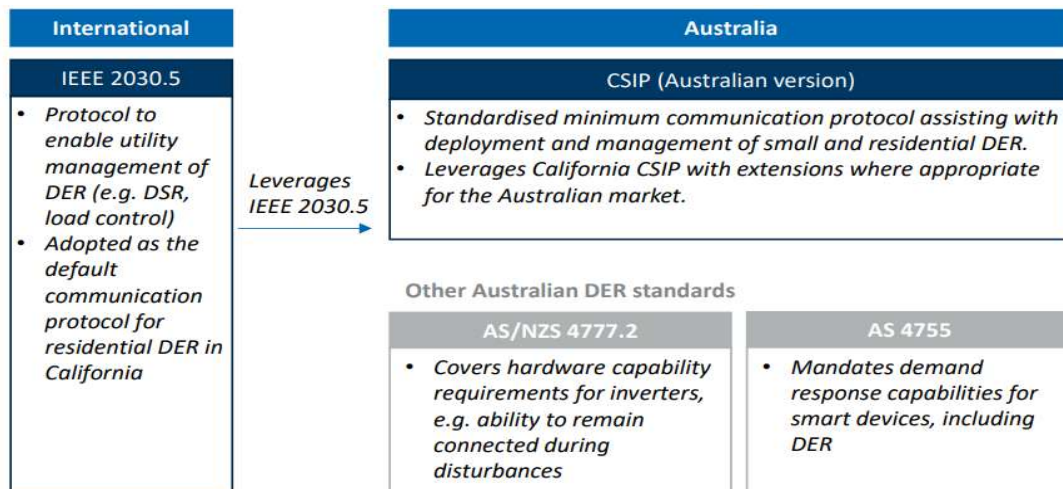
2.3 Common Smart Inverter Profile Australia - CSIP-AUS

CSIP-AUS stands for Common Smart Inverter Profile Australia which leverages the IEEE 2030.5 communication standard to create a framework for Distributed Energy Resources (DER) control within a DNSP network. IEEE developed the IEEE 2030.5 standard to help DNSPs mitigate the issue of controlling all the new embedded generators / DERs safely and securely. Developed and first released in 2018, the standard models a modern IOT protocol with over 30+ function sets covering everything from device discovery to security to smart grid including, but not limited to; DERs, demand response, metering, costing and EV flow reservation.¹

CSIP-AUS implements 20 or more of the 30+ IEEE 2030.5 function sets and is the mandated end-state solution for JEN to comply with the Victorian Government's new Ministerial Licence Condition², applying to all JEN's non-SCADA systems. Refer to Figure 2-1 below.

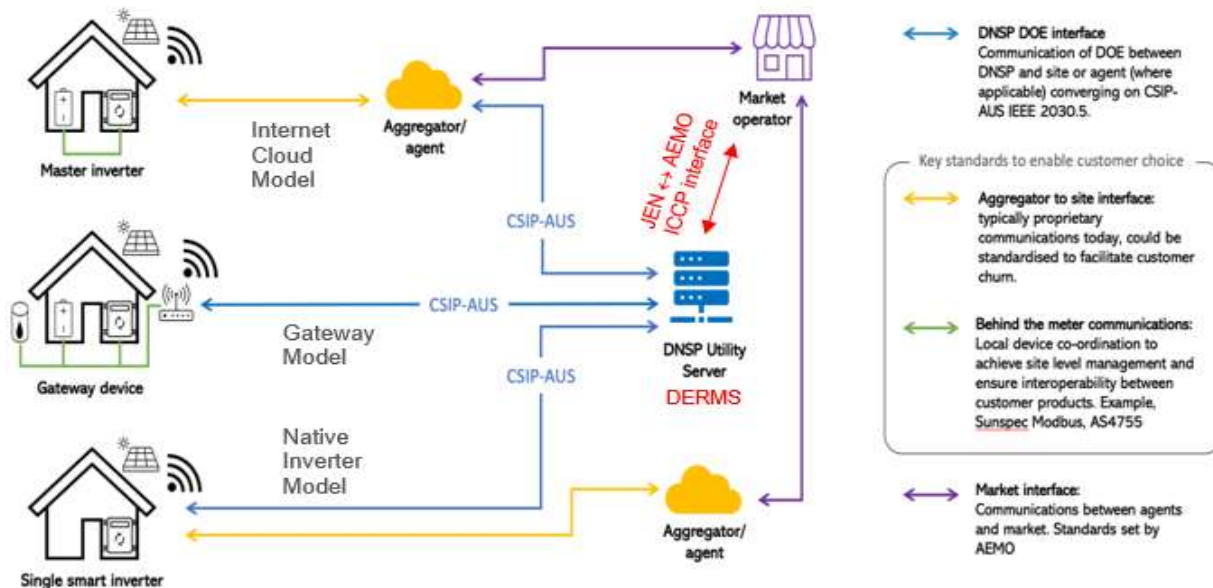
¹ Source: <https://www.qualitylogic.com/knowledge-center/ieee-2030-5-takes-off/>

² The Electricity Industry Act 2000 - Ministerial Order Specifying Licence Condition 2025 was gazetted on 9 October 2025 and applies from 1 October 2024 for new or modified/ replaced Generating Unit sizes of 200 kVA or less – Victoria Government Gazette No.S 553 Thursday 9 October 2025: <https://www.gazette.vic.gov.au/gazette/Gazettes2025/GG2025S553.pdf>. The previous two Orders were revoked from 9 October 2025, which include <https://www.gazette.vic.gov.au/gazette/Gazettes2024/GG2024S031.pdf> and <https://www.gazette.vic.gov.au/gazette/Gazettes2024/GG2024S336.pdf>

Figure 2-1– CSIP-AUS & IEEE 2030.5³

2.3.1 CSIP-AUS Communication Models

The CSIP-AUS protocol is the basis for JEN's communication to small and medium EG installations and to Virtual Power Plant (VPP) Aggregators--via gateways, third-party cloud platforms or natively direct to the inverter⁴. The various types of communications arrangements are outlined in Figure 2-2 below.

Figure 2-2 – CSIP-AUS Communication Models⁵

CSIP-AUS enables control (trip, restore, setpoint) and monitoring capabilities over the public internet, allowing JEN to communicate, directly or indirectly with EGs (including EBEs), via JEN CSIP-AUS Utility Server.

³ Source: FTI Consulting

⁴ [FTI - Assessment Framework for DER interoperability policy - December 2021 \(Energy.gov.au\)](#)

⁵ Source: SAPN (modified by JEN)

2.4 Generation Monitoring Meter - GMM

To manage the early adoption risks with CSIP-AUS, the Generation Monitoring Meter (GMM) is being offered concurrently with CSIP-AUS and adopted as an alternative method for EG installations, applicable for contestable revenue meter customers, for customers without a reliable internet connection, or for non-inverter based EG.

The GMM utilises a dedicated AMI Current Transformer meter to control the generating system; however, it is configured as a non-market smart meter. The GMM has control (trip and restore) and monitoring capabilities. As the GMM is a JEN-owned AMI meter, it interfaces directly into JEN's existing AMI Itron GenX meshed radio communications network. The GMM's internal load contactor is provisioned to signal a trip and restore the EG system or site. The JEN-owned CT meter is ideally suited for contestable meter sites.

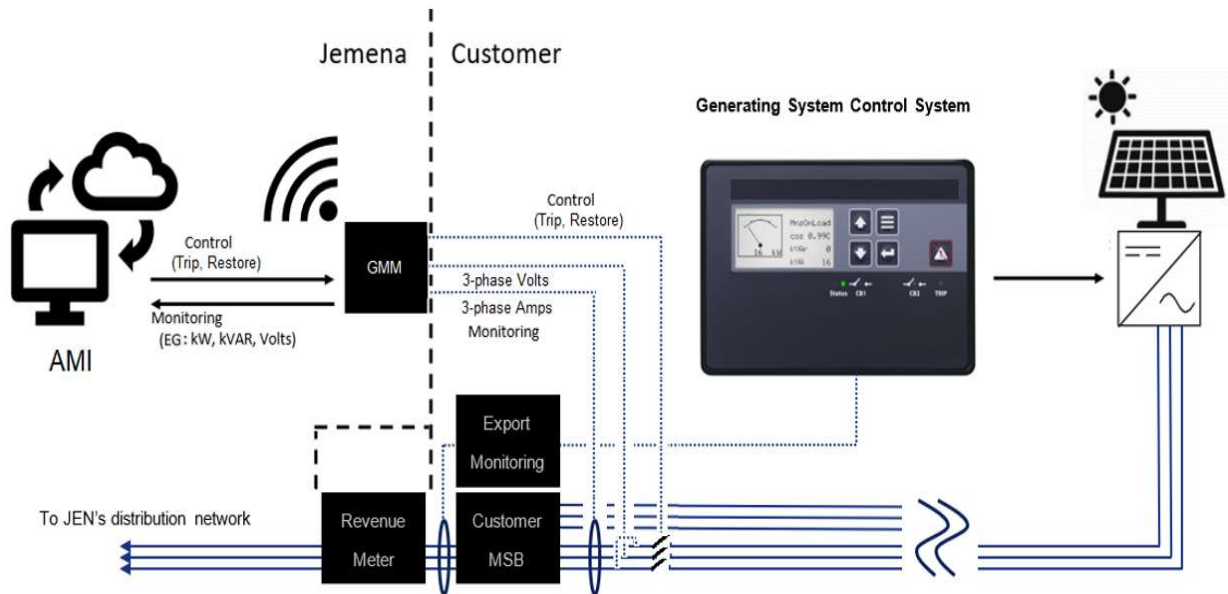


Figure 2-3 – GMM Implementation

2.5 Dynamic Operating Envelope - DoE over SCADA

For EG installations greater than 200 kVA, the imposed regulatory requirements do not specify a particular technology by which Emergency Backstop capability must be implemented.⁶

JEN has therefore adopted our existing SCADA communication system as the method for monitoring EG generation and control as the Emergency Backstop solution for this tranche, using DNP3 over SCADA via gateways and a 4G modem back to our SCADA master-station.

The Dynamic Operating Envelope, DoE, over SCADA method refers to the effective dynamic operation and control of a site's power export through Jemena's DNP3 SCADA control platform.

⁶ See [Victoria Government Gazette, No. S 542, 11 October 2023](#).

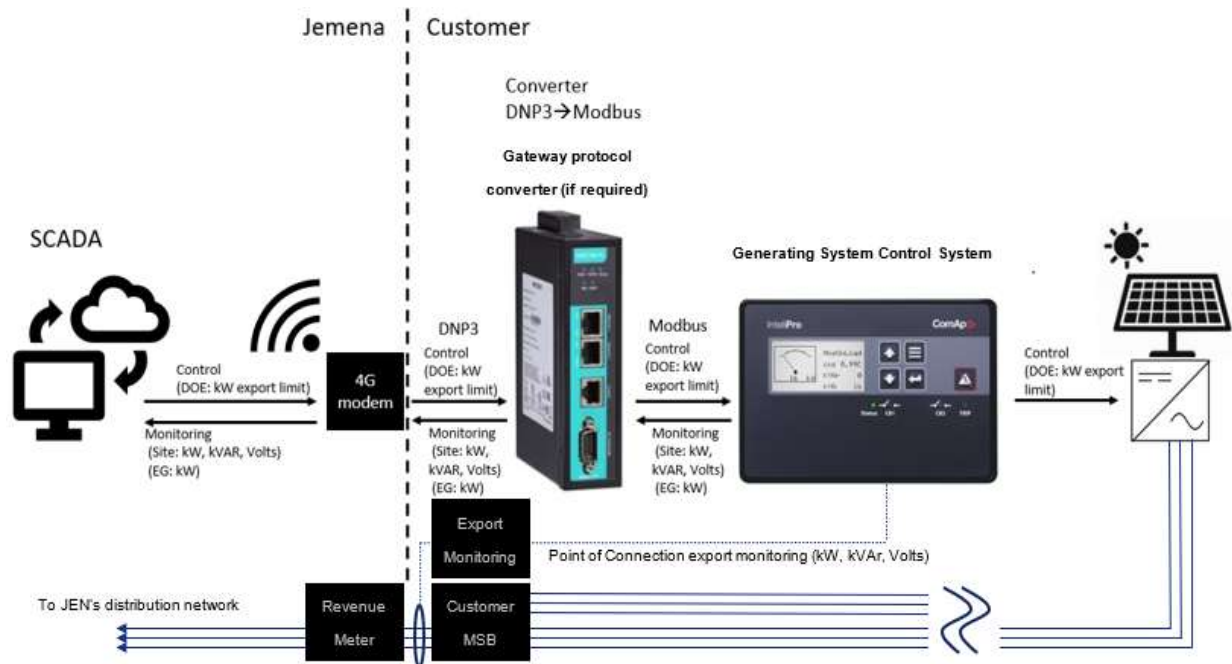


Figure 2-4 – DoE over SCADA Method

2.6 Impact on OEM, Customer and Installer

Jemena, OEMs, customers and installers will all be impacted in various ways to achieve a site's EBE compliance. As such, section 3 outlines the requirements and responsibilities on each party to ensure a site's EBE compliance and verification at different stages of the EG lifecycle.

2.6.1 Basic Embedded Generator Connection Process

For basic EG Connection applications, the process is as summarised below where the EBE compliance is required in steps 5 and 6.

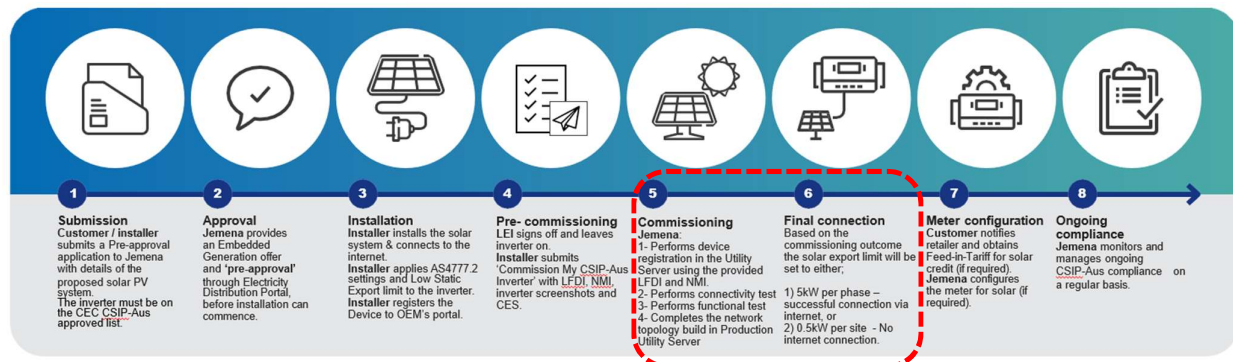


Figure 2-5 – High-Level Basic Embedded Generator Connection Process

2.6.2 Negotiated Embedded Generator Connection Process

The process remains broadly the same for Negotiated EG Connection applications; however, new EBE compliance is required in step 5.

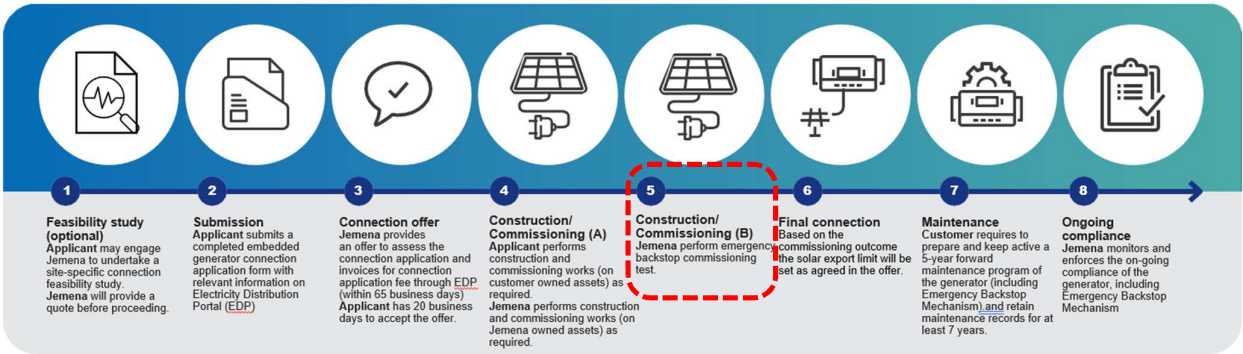


Figure 2-6– High-Level Negotiated Generator Connection Process

3. Requirements

3.1 EBE Export limitations

Linked to EBE compliance is the effective release of the “low static export limit” under different scenarios. Table 3-1 and Table 3-2 explain each system and when the corresponding low static export limits will apply.

3.1.1 Export Levels for EG Systems 0-30kVA

Scenario	Site Export CSIP-AUS
Fixed export limit, with interoperability and export capacity available	5kW per phase
Fixed export limit, with interoperability available but no export capacity	5kW per phase
Loss of comms or fail-safe, with export capacity available	0.5kW total export
Loss of comms or fail-safe, with no export capacity available	0.5kW total export
No connectivity to Utility Server, with export capacity available	0.5kW total export
No connectivity to Utility Server, with no export capacity available	0.5kW total export
Note: The export limits presented above are subject to change.	

Table 3-1: Export Levels for EG Systems 0-30kVA, with CSIP-AUS implementation

3.1.2 Export Levels for EG Systems >30-200kVA

Scenario	Site Export CSIP-AUS	Site Export GMM
Fixed export limit, with interoperability and export capacity available	30% site MD + Adjustable Static ⁷	30% site MD + Adjustable Static
Fixed export limit, with interoperability but no export capacity available	0kW per phase	0kW per phase
Loss of comms or fail-safe, with export capacity available	0.5kW total export	30% site MD + Adjustable Static ⁸
Loss of comms or fail-safe, with no export capacity available	0.5kW total export	0kW total export
No connectivity to Utility Server, with export capacity available	GMM is mandatory	Not applicable
No connectivity to Utility Server, with no export capacity available	GMM is mandatory	Not applicable
Note: The export limits presented above are subject to change.		

Table 3-2: Export Levels for EG Systems >30-200kVA, with CSIP-AUS or GMM implementation

3.1.3 What is successful implementation of EBE

Where a site’s export can be remotely interrupted and/or curtailed via a Jemena approved method, it will be deemed EBE compliant.

⁷ Fixed export limit will be based on site Maximum Demand (MD). Adjustable Static limit is the additional export capacity we provide where there is export capacity available, however, it can be adjusted anytime when other EG customers take up their allocated export capacity.

⁸ There is no fail-safe design function within GMM. However, JEN will continue to explore a fail-safe design with installer as we implement this solution.

3.1.4 What is not successful implementation of EBE

Where a site's export cannot be remotely interrupted and/or curtailed via a Jemena approved method, will be deemed EBE non-compliant.

- For 0-30kVA systems, a low static export limit applies.
- For >30kVA systems, the site will not be able to connect.

3.2 Process

The EBE requirements can be categorised by 3 key stages:

1. EBE Equipment Verification (OEM & Jemena)
2. Requirements during Connection Process (OEM, Installer & Jemena)
3. On-Going Operations and Maintenance (O&M) Requirements (Customer & Jemena)

The following sub-sections outline the requirements and associated supporting documents for each stage and EBE type.

3.2.1 EBE Equipment Verification (OEM & Jemena)

This section outlines Jemena's requirements to verify EBE compliant equipment with OEM prior to it being installed on Jemena network as part of the connection process.

3.2.1.1 CSIP-AUS Type

Due to CSIP-AUS's relatively new industry adoption, there is currently no single accreditation regulatory body managing the compliance of CSIP-AUS for every inverter connected to a DNSPs Utility Server via IEEE 2030.5 protocol. As such, Jemena will verify OEM inverters against its own Utility Server⁹ and manage its own network approved listing, referred to as Jemena's CSIP-AUS Approved Listing.

As the industry adoption will take time, for OEMs to test against Jemena's Utility Server, and until an accreditation body is established, Jemena provided a period of nine months to support OEM testing where Jemena did not restrict any CEC listed and approved AS 4777.2, CSIP-AUS compliant inverters from attempting connection to Jemena's network.

This nine-month period started on 1 October 2024 and concluded on 30 June 2025.

In summary;

- Jemena provides an OEM test Utility Server to pre-test OEM systems to ensure compliance prior to installation.
- From 1 October 2024, Jemena only accepts CEC listed and approved AS 4777.2, CSIP-AUS compliant systems connecting to its network.
- Upon successful OEM system to Utility Server testing; the tested system is added to Jemena's network approved list of CSIP-AUS compliant inverters, referred to as Jemena's CSIP-AUS Approved Listing.
- From 1 July 2025, Jemena will only allow the connection of inverters maintained on our Jemena's CSIP-AUS Approved Listing. When a CSIP-AUS accreditation regulatory body is established, Jemena will revert approval to this new body.

⁹ Refer to Jemena's Inverter OEM Validation Test Procedure.

The Jemena's CSIP-AUS Approved Listing contains CSIP-AUS inverters tested against Jemena's Utility Server. New inverters can be added to Jemena's Approved Listing by making applications to emergency.backstop@jemena.com.au.

Prior to 1 July 2025, Jemena did not restrict any CEC CSIP-AUS listed and approved inverters from attempting connection to its network, even if the OEM has yet to test against the provided OEM test Utility Server. This is to allow OEMs that have compliant inverters but unable to test against Jemena's OEM test Utility Server, for whatever reason, a chance to still connect. Note, however, where the device fails the test, a low static export limit or disconnection will still apply (refer to Table 3-1). Jemena therefore recommend OEMs to utilise the provided test Utility Server to test its inverters as soon as possible to ensure a better customer/installer experience.

3.2.1.2 GMM Type

Only sites that Jemena have agreed to use GMM as an EBE type are verified and tested during the connection process. As such, the GMM solution does not require any specific OEM's EBE equipment verification.

3.2.1.3 DoE over SCADA Type

DNP3 control (including DoE over SCADA) of EG systems is not new to Jemena's network on systems above 200kVA. As such, the processes and procedures will continue to follow business-as-usual for verification and validation testing during the connection process. As such, the DoE over SCADA solution does not require OEM's EBE equipment verification.

3.2.1.4 Relevant Documents

The relevant supporting documents grouped by EBE type are summarised in Table 3-3 below.

EBE Type	Document Title	Document Type	URL
All types	Embedded Generation Emergency Backstop Requirements Procedure (this document)	Procedure	Emergency Backstop Mechanism Documents Jemena
CSIP-Aus	JEN OEM Technical Guide Handbook – Client onboarding technical guide to Jemena's Utility Server (Staging and Production)	Procedure	Emergency Backstop Mechanism Documents Jemena
GMM	No specific requirements unless OEMs want to set up test bench with Jemena.		
DoE over SCADA			

Table 3-3: Supporting Documents for EBE Equipment Verification

3.2.2 Requirements during Connection Process (OEM, Installer & Jemena)

For each site to connect to Jemena's network, the installer and/or customer, is to follow the EBE requirements as outlined within the relevant documents. Each site, connection type and size have different requirements to adhere to and are summarised in Table 3-4 below.

Size	Applicable EBE Type
0-30kVA	CSIP-AUS
30-200kVA	CSIP-AUS (or GMM at the discretion of Jemena)
>200kVA	DoE Over SCADA

Table 3-4: EBE Type for different EG sizes

3.2.2.1 CSIP-AUS Type

The EBE requirements are:

- All inverters must register the device with the OEM during the connection process. Each connected site must have an LFDI and NMI prior to submitting to Jemena's 'Commission My CSIP-AUS Inverter'. Refer to Section 2.6 for the connection processes.
- Specific requirements and outcomes under different scenarios are outlined in Section 3.1.

3.2.2.2 GMM Type

Only sites that Jemena have agreed to use GMM as an EBE type are verified and tested. The process is slightly different to CSIP-AUS and will require support from the installer (on-site) and collaboration with Jemena's AMI Meter commissioning team to ensure the EBE design is functioning correctly.

Specific requirements and outcomes under different scenarios are outlined in Section 3.1.

3.2.2.3 DoE over SCADA Type

DNP3 control (including DoE over SCADA) of EG systems is not new to Jemena's network on systems above 200kVA. As such, the processes and procedures will continue to follow business-as-usual for verification and validation testing.

3.2.2.4 Relevant Documents

The relevant supporting documents grouped by EBE type and other relevant supporting documents grouped by connection agreements and processes are summarised in Section 6 Appendix 1.

3.2.3 On-Going Operations and Maintenance (O&M) Requirements (Customer & Jemena)

Effective EBE implementation also requires ongoing verification and where applicable, annual site testing. As such, the customer should expect communication from Jemena in this regard. Jemena will ensure, that where a site has successful EBE implemented, it will enact all verification requirements and inform the customer of any such testing required prior to tests being conducted.

See below for outlined testing and notification requirements.

3.2.3.1 Jemena's communication processes

The connection application process requires the customer details for on-going and future notification and communication purposes. A preferred communication method is to be agreed upon at which point all future communication will use the chosen method. If there is no agreed communication method, Jemena will apply its own method to communicate.

MSO and/or Negotiated Customers

Where customers sign onto an MSO and/or Negotiated connection agreement containing the customer's explicit informed consent, then Jemena will follow that process in the contract / agreement.

Timelines on notification

Website and CSIP-Aus commissioning portal methods

When actioning an instruction from AEMO or undertaking a subnetwork and network-wide test, to interrupt or curtail electricity generation, Jemena will, as soon as practicable, publish a notice on its website with information on the nature of the interruption or curtailment.

The same website will be used to publish any utility server outage information that impact CSIP-Aus commissioning test or the operation of the EBE systems, including:

- (a) an estimate of when an outage-affected utility server will be restored; or,
- (b) if reliable information is not available to inform that estimate, an estimate of when reliable information on restoration of the utility server will be available.

Jemena is currently developing a new CSIP-Aus commissioning portal, anticipated to be available in July 2026, which will also provide utility server outage information.

Electronic methods and physical mails

When Jemena is carrying out subnetwork tests to satisfy EBE functionality, and the event is anticipated to result in customer's generation being interrupted or curtailed for a cumulative total of more than 30-minute within a 48-hour period¹⁰, Jemena will inform the customer at least 48 hours before the event. The notification method where Jemena anticipates a test is going to take longer than 30 minutes in a 48-hour period, specifically that:

- (a) Jemena will contact the customer via preferred method of communication; or
- (b) if the customer has not nominated a preferred method of communication, by electronic communication; or
- (c) if neither of the above are available, whichever other method of communication is available.

Following subnetwork or network-wide test, if any customer remains disconnected from exporting for longer than the intended testing period, Jemena will within 24 hours following testing, notify that customer that they remain disconnected from exporting to the distribution network following testing.

Telephone service

Our existing telephone service is available for customers (and installers) to contact for EBE related matters.

¹⁰ For customers with Model Standing Offer or Negotiated Connection Agreement that stipulated with a "15-minute within a 48-hour period", the 15-minute threshold will apply for these customers.

Notification of this procedure

Jemena is publishing this document on its website and will notify the Essential Services Commission (ESC) when amended from time to time. Other related EBE documents are also published on Jemena's website.

3.2.3.2 On-going Testing and associated reporting

Every new site undergoing connection will be reviewed regularly after commissioning, for ongoing EBE functionality, or where sites are set to "low static export" to ensure they do not export above this limit.

Sites that have successfully passed EBE verification, will be re-verified and re-tested (where necessary) to ensure EBE functionality. Jemena's on-going testing includes subnetwork and network-wide testing as described below.

Subnetwork test

This is an ongoing verification and where applicable, annual site testing for parts of EBE systems connected on JEN.

Network-wide test

Jemena will undertake 2 to 4 tests across its entire network annually where each network-wide testing duration is expected to last a cumulative total of less than 90 minutes within a 48-hour period. This test is to ensure that systems and platforms which remotely interrupt or curtail electricity generation function as expected during minimum system load emergency conditions and seek to understand capacity available of all EBE systems on JEN.

Prior to the network-wide test, Jemena will inform the ESC of Jemena's intention to undertake a network-wide test at least one business day before undertaking that test. That notice will include when the test is to occur and what is anticipated by an interruption.

If Jemena considers it needs to conduct more than four network wide tests annually, it will make a request to the ESC for approval to conduct an additional network wide test by providing an approximate window of when the proposed test will occur and include the rationale for why an additional test is required. The ESC may approve or decline the request for additional network wide testing for any reasons it considers relevant, including but not limited to, the potential impacts on customers.

Following each network-wide test, Jemena will provide test results to the Department of Energy, Environment and Climate Action (DEECA), AEMO and the ESC. The test results would include the total numbers of devices that have passed or failed the testing as part of the results of Jemena's network-wide test, and the aggregate capacity in megawatts of EBE compliant systems, within 10 business days of when the test was conducted.

4. Summary of Responsibilities

The following table summarise the roles and responsibilities.

Role	Responsibility
Jemena	<ul style="list-style-type: none"> • Provides test Utility Server for OEM • Provides production Utility Server for Installer and Customer • Provides testing requirements and criteria (this document and others outlined) • Perform and record test outcomes • Administer communication software clients and inverters that passes or fails the test • Technical support and resolve dispute • Ongoing verification of EBE • Upkeep of Jemena's CSIP-AUS Approved Listing
OEM	<ul style="list-style-type: none"> • Provides registration details of the device to the Installer and/or Jemena (i.e. NMI, LFDI) • Communication and system commissioning support • Testing troubleshooting support • Ensure/Set low static export on EG (as required)
Installer	<ul style="list-style-type: none"> • Registration of device with Jemena and OEM (where applicable – i.e. LFDI, NMI, etc.) • Jemena approved CSIP-AUS compliant system installed, connected and ready for commissioning with internet connection made available to inverters • Support to Jemena's representative (as required) • Ensure/ set low static export on EG (as required)
Customer	<ul style="list-style-type: none"> • Maintain the EG EBE system with ongoing function • Maintaining Utility Server connectivity (where applicable)

5. Related / Reference Documents

1. Government of South Australia, Technical Regulator Guideline. Link: [2022D066388-Technical-Regulator-Guidelines-Distributed-Energy-Resources-Version-1.5-1.pdf \(energymining.sa.gov.au\)](#)
2. DEIP Distributed Energy Integration Program, CSIP-Aus Testing & Certification Handbook, September 2025, External client and server development handbook, aligned with CSIP-Aus version 1.2., Link: [CSIP-AUS+support+guide_external_v1.0.pdf](#)
3. [IEEE 2030.5:2018](#)
4. [SA HB-218:2023](#) and [SA TS 5573:2025](#)

6. Appendix 1: Supporting Documents during Connection Process (OEM, Installer & Jemena)

The relevant supporting documents grouped by EBE type are summarised in the table below.

EBE Type	Document Title	Document Type	URL
All types	Embedded Generation Guidelines (JEN GU 0020)	Guideline	Solar and Other Technologies Jemena
	Embedded Generation Emergency Backstop Requirements Procedure (this document)	Procedure	
CSIP-Aus	Installer CSIP-AUS Commissioning Test Procedure	Procedure	Solar and Other Technologies Jemena
	Inverter Energy System Embedded Generators Protection Requirements and Settings Summary (AS/NZS 4777.2:2020) – 0-200kVA systems	Fact sheet	
	Connection Guidelines for Inverter Energy Systems - >10kVA (single phase) and >30kVA to 200kVA (three phase) (ELE GU 0014)	Guideline	
	Residential Solar and Battery Systems EG Application Single Line Diagram Requirements	Fact sheet	
GMM	Embedded Generation Backstop Guideline (Above 30kVA) – DoE Over SCADA and Generator Monitoring Meter Methods (ELE-999-GL-EL-007)	Guideline	Solar and Other Technologies Jemena
	Inverter Energy System Embedded Generators Protection Requirements and Settings Summary (AS/NZS 4777.2:2020) – 0-200kVA systems	Fact sheet	
	Connection Guidelines for Inverter Energy Systems - >10kVA (single phase) and >30kVA to 200kVA (three phase) (ELE GU 0014)	Guideline	
	Residential Solar and Battery Systems EG Application Single Line Diagram Requirements	Fact sheet	
DoE over SCADA	Embedded Generation Backstop Guideline (Above 30kVA) – DoE Over SCADA and Generator Monitoring Meter Methods (ELE-999-GL-EL-007)	Guideline	Solar and Other Technologies Jemena
	Embedded Generation – Connection Principles and Guidelines; Embedded Generation – 5MVA or Greater (ELE GU 0004)	Guideline	
	Embedded Generation – Technical Access Standards; Embedded Generation – 5MW or Greater (ELE SP 0003)	Guideline	
	Register of Completed Embedded Generation Projects (Greater than 5MW)	Guideline	
	Embedded Generation – Example Charges and Fees; Embedded Generation – 5MW or Greater (ELE PR 0007 RG 01)	Guideline	

Other relevant supporting documents grouped by connection agreements and processes are summarised in the table below.

Connection agreements and processes	Document Title	Document Type	URL
Embedded Generation Connection Agreements	Model Standing Offer(s) – IES 0-30kVA	Contract	Solar and Other Technologies Jemena
	Generator Connection Agreement(s) – Above 30kVA	Contract	Available upon request
	Model Embedded Generation Connection Agreement (ELE PR 0007 RF 01)	Contract	Solar and Other Technologies Jemena
Embedded Generation Processes and Forms	Basic EG connection process	Procedure	Solar and Other Technologies Jemena
	Negotiated Connection Process (Embedded Generators) – (Embedded Generators with total capacity of up to 5MVA)	Procedure	
	Description of Connection Process for Embedded Generation 5MVA or Greater (ELE PR 0007)	Procedure	
	Negotiated Connection Services Embedded Generation – Enquiry form	Form	
	Negotiated Connection Services Embedded Generation New Connection & Connection Alteration – Connection Application form	Form	