

Overview of CSIP-AUS and NEPKI requirements for solar inverter manufacturers (OEMs)

July 2026

1. Purpose

The requirements for solar equipment sold in Australia are changing, with changes to requirements related to CSIP-AUS (Standards Australia Technical Specification 5573:2025) and the National Energy Public Key Infrastructure (NEPKI). Solar equipment manufacturers (OEMs) need to understand these changes as they will affect whether equipment is allowed to be sold in NSW and other states and territories from late 2026 onwards.

This document explains what CSIP-AUS and NEPKI are, why they matter and what OEMs need to do to meet the associated technical requirements for equipment sold in Australia.

2. Summary: what do I need to do?

You need to act now to ensure your equipment can continue to be sold in Victoria and NSW from late 2026.

The things you need to do are summarised below. More information on CSIP-AUS and NEPKI is provided in the sections that follow.

- ☑ You must ensure all solar equipment is [tested and certified by the Australian National University](#) (ANU) and [listed by the Clean Energy Council](#) (CEC) as compliant to [SA TS5573:2025](#) by the end of October 2026. This includes re-certifying all equipment that was previously certified to an earlier version of CSIP-AUS.
 - Solar equipment that is not certified to SA TS5573:2025 cannot be installed in Victoria after 1 November 2026.
 - Certification against earlier versions of CSIP-AUS will not be recognised by NEPKI after 30 October 2026
 - If you have not yet contacted ANU to book times for product testing and re-certification you should do so immediately by email to csipaus-cert@anu.edu.au as there is a waiting list for testing.
- ☑ You must onboard with NEPKI as soon as possible. To begin the process, contact NEPKI by email at info@nepki.com.au (if you are already CSIP-AUS certified you do not need to wait to onboard with NEPKI). Note that:
 - SA Power Networks has already begun the process of migration from its existing PKI solution to NEPKI
 - NSW DNSPs will require NEPKI certificates when CSIP-AUS becomes mandatory in NSW from late 2026
 - If you already have CSIP-AUS equipment deployed using one or more non-NEPKI PKI services, contact NEPKI as soon as possible for the latest information on migration plans by email to info@nepki.com.au.
- ☑ If your solar equipment will be sold in NSW from late 2026 you must also complete the online [Utility Server onboarding application form for NSW](#) to commence onboarding with the NSW DNSPs.

Further information is included on the following pages.

Language translation services are available through Multicultural NSW: <https://multicultural.nsw.gov.au>.

3. CSIP-AUS

What is CSIP-AUS?

The Common **Smart** Inverter Profile – Australia (CSIP-AUS) is a communications protocol used for communication between Distributed Energy Resources (DER)¹ like solar inverters and Australian electricity networks (Distribution Network Service Providers or DNSPs).

The current version of CSIP-AUS is CSIP-AUS v1.2 and this is defined in Standards Australia Technical Specification SA TS 5573:2025.

How is it used?

Australian DNSPs use CSIP-AUS to communicate with customers' inverters to enable:

- flexible (dynamic) export limits
- 'emergency backstop' mechanisms, where DNSP needs to reduce solar export or generation limits to maintain system stability.

CSIP-AUS is also used by energy retailer Synergy in Western Australia for battery control for its Virtual Power Plant (VPP) scheme.

Technical details

CSIP-AUS is an application layer protocol based on the IEEE 2030.5 Standard for Smart Energy Profile Application Protocol, also referred to as SEP2.0.

CSIP-AUS specifies how the IEEE 2030.5 standard is to be used for inverter communications in Australia, and includes specific extensions to support the Australian context. It is based on the Common Smart Inverter Profile (CSIP) version 2.1 published in 2018 in the United States as an outworking of a Californian 'Rule 21' initiative.

Further information on CSIP-AUS can be found at <http://www.csipaus.org/>.

Why does it matter?

Support for CSIP-AUS is currently a mandatory requirement for all solar inverters installed in South Australia and Victoria. From late 2026 it will become a mandatory requirement for all solar inverters installed in New South Wales (NSW) and in 2027 it is expected to become mandatory for solar inverters in the Australian Capital Territory (ACT).

In jurisdictions where mandatory requirements apply, products that have not been tested and certified as CSIP-AUS-compliant cannot be installed.

CSIP-AUS-compatible equipment is also required by:

- Energy Queensland for customers who want to opt into a dynamic connection offer in Queensland
- Synergy for customers wishing to access battery rebates and enrol their batteries into Synergy's VPP.

A map summarising current CSIP-AUS requirements in Australia is included in Attachment 1.

¹ Also referred to as Customer or Consumer Energy Resources, or CER

How do I certify products as CSIP-AUS compliant for sale in Australia?

To be eligible for installation in jurisdictions where CSIP-AUS is mandatory, solar inverters must be certified as CSIP-AUS compliant and listed on the CEC's list of compliant inverters.

The ANU is currently the sole test house able to test and certify equipment as compliant to SA TS5573:2025, the current version of CSIP-AUS.

Certification involves the following steps:

1. OEMs wishing to certify a product should begin by contacting the ANU. Visit the [ANU's CSIP-AUS testing and certification site](#) for details.
2. ANU will provide access to its online CSIP-AUS software client testing tool so that the OEM can perform its own software testing.
3. ANU will then schedule a testing session with the OEM involving physical testing of a sample product (e.g. a solar inverter) to confirm correct behaviour. This session is typically conducted remotely by video call.
4. Once all tests are passed, ANU will provide confirmation of test success to the CEC.
5. The CEC will review the test results and then add the product to the [CEC list of certified products](#).

If you have not yet contacted ANU to book times for product testing and re-certification you should do so immediately, as there is a waiting list for testing.

What if my product has already been certified against an earlier version of CSIP-AUS?

In Victoria, products that were previously certified against the earlier version of the CSIP-AUS standard (CSIP-AUS v1.1, Standards Australia Handbook HB218:2023) can still be installed until 1 November 2026, after which only equipment that has been tested and certified against the current version of the standard, SA TS5573:2025, can be installed. In Queensland, SA TS5573:2025 will be required for all dynamic connections after 1 November 2026.

When CSIP-AUS becomes mandatory for new solar installations in NSW in late 2026 and in the ACT (expected in 2027), only products certified to SA TS5573:2025 will be able to be installed in these jurisdictions.

South Australia has not yet set a deadline for re-certification; CSIP-AUS products that are currently approved by SA Power Networks will continue to be allowed until further notice.

What else do I need to do to prepare for the mandatory CSIP-AUS requirements in NSW?

If your solar equipment will be sold in NSW from late 2026 you need to:

1. Ensure all products have been tested and certified by ANU as compliant to SA TS 5573:2025 (see above)
2. Onboard with NEPKI and ensure all CSIP-AUS products have NEPKI digital certificates (see below)

You must also complete a short onboarding process with each NSW DNSP to enable your devices to access DNSP utility servers, as follows:

1. Complete the online [Utility Server onboarding application form for NSW](#). You only have to do this once, and your details will be sent to all three NSW DNSPs.
2. After your form is received, Ausgrid, Essential Energy and Endeavour Energy will contact you to complete the onboarding process. This is a simple process that involves applying the necessary firewall changes to enable your devices to access the DNSP's utility server, and performing a basic communication test to confirm access.

3. As part of DNSP onboarding you are required to confirm that you have read, and will abide by:
 - The [NSW/ACT Interconnection Handbook](#)
 - The [Common Cyber Security Requirements](#).

Where can I find more information on CSIP-AUS and the NSW CSIP-AUS requirements?

You can find more information using the resources below:

- The national CSIP-AUS Portal web site: <https://www.csipaus.org/>
- ANU's CSIP-AUS testing and certification guidance: [CSIP-AUS certification — CSIP-AUS CSIP-AUS testing and certification handbook](#)
- The CSIP-AUS standard (free download): [SA TS 5573:2025 | Standards Australia Store](#)
- The CSIP-AUS Explainer – technical information for OEMs and aggregators: [CSIP-AUS Explainer](#)
- Clean Energy Council CSIP-AUS certification and listing process: [CSIP-AUS and approved inverters](#)
- Clean Energy Council approved inverters list: [Inverters | Clean Energy Council](#)
- The Utility server onboarding [application form](#) for NSW
- NSW Utility Interconnection Handbook: [NSW and ACT utility interconnection handbook](#)
- NSW and ACT Common Cyber Security Requirements: [Common Cyber Security Requirements for DER](#)
- NSW DNSP email contacts for CSIP-AUS enquiries:
 - csip-aus@ausgrid.com.au
 - csip-aus@endeavourenergy.com.au
 - csip-aus@essentialenergy.com.au

4. NEPKI

What is NEPKI?

NEPKI is Australia's National Energy Public Key Infrastructure (PKI) provider. It provides PKI services to the energy sector to facilitate cyber-secure communication between CSIP-AUS devices.

NEPKI was established in 2025 following calls from the DER industry to create a single, consistent national PKI service for the energy sector, to replace previous individual DNSP-specific PKI arrangements for CSIP-AUS. Having a single, national PKI instead of many individual PKI arrangements eliminates duplication, reduces effort and complexity for industry and improves cyber-security for the sector.

How is it used?

NEPKI issues digital certificates that CSIP-AUS devices and DNSP utility servers need in order to communicate securely.

Technical details

NEPKI administers the Smart Energy Root Certificate Authority (SERCA) for Australia's CSIP-AUS ecosystem. DNSPs, OEMs and aggregators enrol ('onboard') with NEPKI in order to generate digital certificates for their utility servers and CSIP-AUS clients.

Why does it matter?

In future, CSIP-AUS servers, devices and aggregators will need NEPKI-issued digital certificates to communicate.

NSW and South Australia (SA) will be the first jurisdictions to require NEPKI certificates for all CSIP-AUS devices. **All OEMs and Aggregators will need to onboard with NEPKI well before the mandatory CSIP-AUS requirements come into effect in NSW in late 2026, to allow time for testing with NSW DNSPs.**

NEPKI will also be mandatory for all CSIP-AUS devices in the ACT when CSIP-AUS requirements come into effect in the ACT, expected in 2027.

What if I already have CSIP-AUS products that are using certificates issued through a previous PKI arrangement?

The aim of NEPKI is to establish a single national PKI that replaces legacy PKI arrangements. It is important that all OEMs and aggregators onboard with NEPKI as soon as possible to ensure continued operation as other PKI arrangements are phased out.

As of June 2026, NEPKI is working with all parties that currently operate CSIP-AUS utility servers (DNSPs and Synergy) to help coordinate the migration from current PKI arrangements to NEPKI. This process will be different for each organisation:

- NSW DNSPs (Ausgrid, Essential Energy and Endeavour Energy) intend to launch their production CSIP-AUS utility servers in late 2026 with NEPKI as the PKI. The interim PKI solutions that the NSW DNSPs are currently using for test and trial purposes will be retired as soon as possible after go-live of the production environment.
- SA Power Networks has commenced the process of migration from its previous PKI to NEPKI and expects to progressively migrate all OEMs and aggregators as they onboard with NEPKI through mid 2026.
- The timeframe and process for migration from legacy PKIs in Victoria, Western Australia and Queensland are currently being developed.

How do I onboard with NEPKI?

To onboard with NEPKI you need to:

1. Ensure your products are listed by the CEC as compliant to CSIP-AUS. Until 1 October 2026, NEPKI will accept certification against the previous version of CSIP-AUS, Standards Australia HB218:2023. After 1 October 2026, NEPKI will only accept certification against the current version of CSIP-AUS, Standard Australia TS5573:2025. Products that were previously tested and certified against SA HB218:2023 will need to be re-certified, as described earlier.
2. Contact NEPKI at info@nepki.com.au to apply to onboard and to attend a pre-registration session.

NEPKI will provide detailed instructions on the onboarding process. The process normally takes 1 – 2 weeks and involves up to three online meetings with NEPKI of 30-45 minutes each. You will be required to provide proof of identity for your organisation, as well as nominate a person to be your Primary Certificate Manager and provide proof of identity for that person. If you are a device manufacturer and require your own Manufacturer Issuing Certificate Authority (MICA) there is an additional 'key ceremony' step required to create the MICA. This step is not required for aggregators, only those OEMs with 'direct connect' CSIP-AUS devices.

Where can I find more information on NEPKI?

You can find more information using the resources below:

- NEPKI [homepage](#)
- NEPKI [CSIP-AUS PKI Services](#)
- NEPKI enquiries email: info@nepki.com.au

Attachment 1: current CSIP-AUS requirements in Australia (source: ANU)

- Required for **battery control** in Synergy VPP (2025)
 - Mandated in WA for **emergency backstop** (2026)
 - Required in QLD for voluntary **dynamic connections** (2024)
 - Mandated in NSW for **emergency backstop** (late 2026)
 - Proposed in ACT for **emergency backstop** (expected 2027)
 - Mandated in SA for **flexible exports** (2023)
 - Market trials underway
 - Mandated in Victoria for **emergency backstop** (2024)
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- A map of Australia with lines pointing to various states and territories, indicating specific CSIP-AUS requirements. The lines point to Western Australia, Queensland, New South Wales, the Australian Capital Territory, South Australia, and Victoria.