

Information for customers installing solar

Proposed updates for smarter solar

October 2025

This document is for households and small businesses who plan to install or upgrade rooftop solar or batteries. We are proposing to update connection rules for new or upgraded systems on the state's southwest grid (SWIS). The 'smarter solar' changes enable a rollout of flexible exports and make it easy for customers to opt in and out of virtual power plants. The changes increase renewable energy in the SWIS by letting bigger systems export more surplus solar.

What are distributed energy resources?

Distributed energy resources (DER) are consumer-owned systems in homes and small businesses that generate, store, or use electricity.

DER systems include rooftop solar, batteries, electric vehicle chargers, and appliances that can be added to home energy management systems, like pool pumps and hot water systems.

There are more than 500,000 rooftop solar systems in WA. These systems have an electricity generation capacity of around 2.5 gigawatts – around the same as 7 Collie power station turbines.

Why are changes needed?

DER devices are delivering a transformation that benefits all Western Australians. Rooftop solar already provides more than half of renewable electricity in WA's southwest grid, slashing bills and reducing greenhouse gas emissions.

We are supporting this world-leading rooftop solar uptake through the [WA residential battery scheme](#), which is supporting households to install an extra 100,000 home batteries right across WA. Through this scheme, more people will save on bills and continue to benefit from their rooftop solar at night.

Western Australia's southwest grid is the biggest isolated power system in the world. Having hundreds of thousands of solar systems connected to it creates unique challenges for the Australian Energy Market Operator (AEMO) to balance electricity supply and demand.

Grid-scale batteries maintain balance at a system level by soaking up excess solar during the day and discharging at night. However, our expansive network of local poles and wires can still become congested. Historically, local networks were sized for electricity demand that only occurred a few times each year in summer. Most other times, the same poles and wires are undercapacity and able to deliver more electricity. Using existing infrastructure to deliver more electricity is a significant opportunity for every customer to benefit – it reduces upgrade costs and means customers can export more solar.

We want all people in Western Australia to continue benefitting from rooftop solar and batteries, and able to connect more and bigger systems. Changes are needed so customers can keep installing bigger systems to cover growing electricity needs behind the meter. At the same time, changes for smarter solar would unlock the full benefit of systems for customers by enabling them to export more solar to neighbours through local networks more often.

To unlock this opportunity for customers, all new or upgraded systems on Western Power's network need to have the same minimum functionality regardless of the inverter brand. This ensures customers can easily opt in and out of flexible exports and VPPs without more upgrades or installer visits. If customers choose to opt in, it is also important that systems reliably respond during periods of high or low demand.

The best way to achieve this is through simpler connection rules and adopting open standards for 'interoperable' device communication. This is already happening in the WA residential battery scheme, with new systems using standardised communication and able to join a VPP.

What would the changes mean?

The proposed rules would simplify connection and device functionality requirements for new or upgraded solar and battery systems up to 30 kVA.

System functionality would improve, so that most new or upgraded systems support flexible exports for residential and small business customers.

Western Australia would use the secure [CSIP-AUS standard](#) to unlock flexible exports and easy VPP opt-ins for most systems. We have [worked with other states and territories](#) on a consistent rollout of CSIP-AUS, and the proposed approach is similar to the one used in South Australia.

CSIP-AUS benefits customers by making it easy to opt in to new electricity services like VPPs and flexible exports – if they choose to. Opting in benefits customers financially and even supports neighbours without solar by reducing investment needed to upgrade local poles and wires. Adopting this open standard means solar and battery systems would be the same across all Australian states and territories, making it easier for device makers to offer new systems in WA sooner.

From 1 February 2026, installers would use CSIP-AUS to commission all new or upgraded rooftop solar and battery systems. Devices installed since February 2022 already communicate with the network but are currently limited to more basic functionality for emergency solar management.

Customers will always have a choice – if they prefer not to use the functionality for flexible exports or VPPs, or if their site is constrained and cannot maintain minimum capability for flexible exports, their systems will not respond to network signals. These systems will still be able to export up to a standard 1.5 kW limit and customers' use of systems will not be affected in any way.

Using an open standard like CSIP-AUS would mean customers and installers have certainty that all systems meet the same minimum functionality regardless of make or model.

Have your say

We want to hear your thoughts on the proposed changes to make sure they deliver maximum customer benefit and are practical for installers. Your feedback will help us understand how changes might scale to bigger systems or new technology like V2G (vehicle to grid) EV charging.

Please provide feedback by emailing it to smartersolar@deed.wa.gov.au

Installing new DER

Most new inverters already support CSIP-AUS, including hybrid 'battery-ready' and non-hybrid inverters. Enabling the functionality would mean that new or upgraded sites are able to do more than simply [switching off in an emergency](#) and:

- Give every system 'ready-to-go' functionality that customers can use without needing more system upgrades.
- Create opportunities for more customer benefit by allowing retailers to offer flexible exports and VPPs to customers.
- [Enable installers to use the same device onboarding process](#) for all systems regardless of make or model.
- Support stronger cyber security measures and better visibility of network stability.
- Provide consistency for device makers by using an open standard, which makes it easier for new entrants to the WA market.

Upgrading existing DER

Upgraded systems, such as customers adding batteries or a bigger inverter, would also use CSIP-AUS. In most cases, installers would enable CSIP-AUS through an inverter's 'solar cloud' app and customers will not notice any difference.

For the small number of systems that do not support the standard or cannot be updated, installers would use gateways to enable CSIP-AUS during the upgrade. Gateways are useful for complex or less common installs, such as sites with a second inverter that does not match an existing inverter. Gateways are also dual purpose – many allow older systems to use CSIP-AUS and act as energy management systems, which is useful for customers trying to optimise their solar for more things, like hot water or pool pumps.

We have [published a fact sheet](#) with more information on some of the options available to customers adding a battery to legacy systems under the WA residential battery scheme. This information would also apply for customers upgrading systems under the updated rules.

Existing DER (no upgrades)

Customers with existing solar or battery systems would not notice or need to do anything. Synergy would begin to transition systems from its current emergency solar management platform to a new, basic version of CSIP-AUS that provides the same functionality. Everything else – like surplus exports and feed in tariffs – would stay the same.

Smarter solar – More questions and answers for consumers

Who would be responsible for inverters maintaining minimum functionality over time?

There would be no changes to who is responsible for maintaining device communications when new rules come into effect on 1 February 2026.

Installers would continue to be responsible for properly installing or upgrading solar and battery systems. Once installed, system owners would make sure that equipment maintains the minimum functionality needed for systems to perform as expected. Often this will be a simple fix, like entering a new Wi-Fi password on the inverter.

There would be no penalties if devices lose communication. Devices would simply default to a lower static export limit after a period. Exports would automatically increase again once communication is restored.

Electricity retailers would monitor dynamic/flexible systems and may communicate to homeowners and businesses to let them know their systems have lost connectivity for an extended period.

Would it cost more to maintain minimum device functionality under the new rules?

No. All states and territories have been working to make sure that rules for solar and battery systems are the same across Australia.

Synergy and other utilities have worked directly with manufacturers to make sure solar and battery systems support updated standards by default. CSIP-AUS and new communication capability will not form part of any subscription or product that customers must pay to use.

Newer energy services like flexible exports and VPPs do require some level of secure connectivity, so that devices can respond to local network conditions. That means customers who wish to opt in to these services will need an active internet connection to participate.

I have an inverter bigger than 5 kVA and installed a battery under the WA residential battery scheme. Would I need to upgrade again to increase the 1.5 kW export limit?

No. Systems installed under the WA residential battery scheme already have the functionality we are proposing through the updated rules.

These systems can easily opt in to flexible exports when Synergy makes it available.

Could I upgrade my current solar export arrangement?

Yes. Customers with existing systems may want to sign up to a VPP or flexible exports. Depending on what equipment is already on site, installers can bring sites up to the level of functionality needed for customers to opt in to these arrangements.

Existing sites that already meet minimum functionality would be able to sign up to a flexible export or VPP from a retailer or aggregator. They will be able to tell you when it becomes available and what you need to do. For Synergy customers, it would simply mean using CSIP-AUS to enrol systems to a flexible export or VPP platform.

Customers who are unsure what type of system they have or whether their system is eligible should speak to their installer.

I have a large residential property or business and plan to install or upgrade a solar system bigger than 30 kVA. Does this affect me?

No. The proposed changes would not affect customers installing solar or battery system bigger than 30 kVA. We are initially focussing on systems smaller than 30 kVA because this covers most of systems currently being installed.

I plan to install solar on a workshop that is far away from my internet router. Would this prevent me from installing solar altogether?

No. A small number of customers struggle to maintain remote connect/disconnect functionality in the current connection rules, because of physical site constraints like distance.

The rule changes fully retain an option for customers to choose a fixed 1.5 kW export limit instead of maintaining ongoing device functionality.

Would I need to pay to upgrade my system if the inverter is being replaced under warranty?

No. Inverters replaced with a similar or exact replacement under warranty would not be required to meet site functionality requirements.

What would happen to systems already approved before the rules change?

Systems installed and compliant with existing connection rules, but where the connection application to Western Power was before 1 February 2026, would not be required to meet site functionality requirements. All systems being installed or upgraded must still comply with the current connection rules – including remote connect/disconnect functionality for emergency solar management.