

Rooftop solar management

Rooftop solar panels on homes and businesses are Australia's largest electricity generator when aggregated.

Rooftop solar is installed in around one-in-three Australian homes. Uptake of rooftop solar systems is expected to continue growing. These systems will be critical in helping Australia meet its future energy needs as the nation transitions to a net zero emission economy.

AEMO is collaborating closely with governments and industry to integrate high volumes of rooftop solar, particularly under certain weather conditions.



What are the risks?

AEMO can operate the power system with high levels of rooftop solar most of the time.

However, on sunny, mild-temperature days, typically in autumn and spring, large volumes of electricity from rooftop solar reduces the need for grid-scale generation, which provides essential services to keep the power system secure.

Another risk when rooftop solar output is high is a potential issue on the power system that coincidentally disconnects a large power station and rooftop solar systems.

How does AEMO manage these risks?

AEMO alerts market participants of the risks and actions being taken before directing rooftop solar management as a last resort.

In alerting market participants of rooftop solar risks, AEMO issues market notices. This is a similar process to when AEMO communicates forecast low electricity reserves.

AEMO and industry are collaborating to overcome these risks and maintain electricity reliability and security. Work includes introducing new standards, exploring new technologies, and reforms to increase the value of rooftop solar, batteries and other consumer devices.

Market notices

One action available to AEMO to manage the power system during minimum system demand or rooftop solar contingency events is to issue market notices.

Notice 1



Advance notice

AEMO provides advance notice of a possible minimum system demand or rooftop solar risk event. The notice will generally be issued in advance, such as a day, to provide the market time to prepare and respond. However, it could be issued quite quickly if an unexpected condition arises.

Notice 2



Confirm operational actions taken

This notice is issued if the previous notice wasn't able to secure sufficient action to clear the risk. It states AEMO is taking available steps to maintain system security. These steps can include:

- Recalling planned transmission outages.
- Constraining and directing non-essential generation.
- Increasing electricity demand by directing large consumers into service to absorb excess energy (such as pumped hydro or batteries).

Notice 3



Notify the market that rooftop solar management will occur

This third notice will signal that capable rooftop solar systems may be temporarily dialled down or switched off from generating to maintain system security and reliability.

Where will this happen?

Rooftop solar management programs are active in [South Australia](#), [Queensland](#), [Victoria](#) and [Western Australia](#).

Only systems installed or upgraded from the start of these programs will be temporarily remotely dialled down or prevented from exporting into the grid.



About us: AEMO is the independent energy market and system operator and system planner for the National Electricity Market (NEM) and Western Australia's Wholesale Electricity Market (WEM). We are a not-for-profit company, with a membership of state and federal governments (60%) and energy industry members (40%).

More info: aemo.com.au/about/who-we-are