

# Load Shedding

Load shedding is the planned reduction of electricity to selected areas during extreme events to protect the electricity network from long-term damage and widespread consumer outages.

Used as a last resort, load shedding assists in balancing supply and demand to maintain power system security.



Wholesale Electricity Market (WEM)

National Electricity Market (NEM)



## What causes electricity shortfalls?

A combination of planned and unplanned events can impact available resources, causing a depletion of electricity reserves, including:



Bushfires and extreme weather events, such as heatwaves, floods and storms



High electricity demand



Generation and/or infrastructure outages, or critical infrastructure maintenance



### Under frequency load shedding (UFLS)

Load shedding can also occur automatically under coordinated schemes when sudden, unexpected events cause a sharp drop in frequency. In these cases, UFLS can kick in to quickly stop the frequency drop, preventing it from collapsing completely and allowing the system to be re-secured.

## Why may load shedding be needed?

After AEMO has exhausted all intervention options, manual load shedding may be required as an absolute last resort to avert the risk of power system collapse or physical damage.

These options include:

- Issuing forecast Lack of Reserve notices to secure industry response.
- Rescheduling planned outages and directing available capacity online
- Activating back-up reserves



### Emergency reserve mechanisms

In the NEM, reserves are procured through the [Reliability and Emergency Reserve Trader \(RERT\)](#) mechanism. While in the WEM, reserves are procured through the [Supplementary Capacity \(SC\)](#) mechanism.

These mechanisms comprise a mix of generation and demand reduction agreements.

## Which areas could be affected by load shedding?

**AEMO does not decide which areas have their power turned off.**

AEMO identifies the amount and duration of electricity shortfalls. The network transmission and distribution companies work out how manual load shedding is done at a local level to meet the shortfall.

Approaches vary between the states and territories, and each has a plan developed by the state government in collaboration with the electricity industry for how manual load shedding is to be carried out in their jurisdiction.

In all states, the priority order of load shedding is determined by the Jurisdictional System Security Coordinator (JSSC), with advice provided by Network Service Providers and government. In Victoria, AEMO has the JSSC role.

**Wherever possible, manual load shedding is done on a rotational basis to minimise impact.**

AEMO, governments, and the electricity industry work together to minimise the impact on the community, particularly major health facilities, emergency services and public transport. However, all electricity consumers should be prepared for power outages, in the rare occurrence that AEMO instructs manual load shedding to protect the whole interconnected power system.

## Did you know?

The power system may experience different types of power outages. Load shedding is different to local outages.

- **Planned outages** are prearranged and necessary for routine maintenance, inspections and improvements on various electricity infrastructure.
- **Local unplanned outages** are interruptions to the generation, transmission, or distribution of electricity that is unscheduled and can occur as a result of damage to wires or infrastructure.

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](http://aemo.com.au/about/who-we-are)