

Transmission, renewables and fire safety in Victoria

June 2026

How renewable energy and transmission infrastructure are planned, regulated and managed to minimise fire risk.

Renewable energy projects are planned and built to manage fire risk

Renewable energy facilities in Victoria are regulated with clear safety requirements, and fire incidents are rare. All solar, wind and battery projects must follow safety laws and regulations.

Under the Electricity Safety Act 1998, owners and operators of renewable energy facilities must design, construct, operate, maintain and decommission their installations safely.

As part of their safety obligations, they are also expected to consult with fire agencies – including the Country Fire Authority (CFA) – when seeking planning approval, and have procedures, emergency access and supporting infrastructure in place to help mitigate fire risk.

CFA's role in keeping facilities safe

The CFA has a Specialist Risk and Fire Safety Unit which works with regulators and industry to assess and manage the fire risk of renewable energy facilities.

The CFA's Design Guidelines and Model Requirements for Renewable Energy Facilities outlines clear expectations for fire safety in the design and operation of renewable energy facilities.

These guidelines, the first of their kind in Australia, set out standard measures for fire safety, risk and emergency management in the design, construction and operation of renewable energy facilities and infrastructure.

Transmission lines are designed and maintained to minimise fire risk

Transmission lines are designed, operated and maintained in line with laws, regulations and Australian standards to ensure they operate safely.

This includes requirements for height clearances, vegetation management, distances between lines, structures and any equipment that passes under them.

Vegetation management on transmission easements reduces fire risk and, in some cases, easements may even act as firebreaks. Bushfire risk is carefully considered when designing and planning where transmission lines will go. If a fault occurs, protection systems switch the power off in a fraction of a second to reduce fire ignition risk.

There are no records of a significant bushfire in Victoria being directly started by a transmission line.

How the network is regulated

As the regulator responsible for enforcing electrical safety laws, Energy Safe Victoria oversees how transmission companies minimise bushfire risk and meet their safety obligations.

It requires all transmission companies to have:

- **Bushfire Mitigation Plans** – outlining how they mitigate the risk of transmission lines starting fires and manage the network during periods of bushfire risk.
- **Electric Line Clearance Management Plans** – outlining how vegetation is managed under and around powerlines.
- **Electricity Safety Management Schemes** – outlining how they design, construct, operate, maintain and decommission networks to minimise safety risks as far as practicable.

Energy Safe Victoria checks compliance with these plans every year to ensure the infrastructure and surrounding vegetation are properly managed before and during fire season.

Fighting fires near renewable energy facilities and transmission

Victoria's fire agencies have well-established policies and safety procedures for responding to fires near renewable energy facilities and transmission infrastructure. They continually refine and review these procedures to ensure local brigades and volunteers are appropriately trained.

Around transmission lines, firefighters can directly attack fires next to transmission easements when it is safe to do so, including through aerial bombardment. When high-voltage lines are turned off (de-energised), firefighting can occur within the easement.



Transmission lines are designed to withstand extreme wind

Transmission lines must meet the Australian design standards in place at the time they are built.

The standards were updated:

- In 2010 to address high-intensity winds from thunderstorms and downbursts.
- In 2016 to consider the risk of multiple towers failing during a single event.

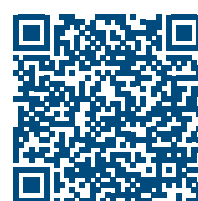
All new Victorian transmission projects must meet these standards.

Transmission companies must also continually assess older assets to determine whether upgrades are required.

Find out more

For more information about fire safety, renewable energy and transmission planning in Victoria, visit:

vicgrid.com.au/community/living-and-working-near-transmission-lines



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