



# We'll keep you informed

A dedicated team of engineers, planners and crews work to ensure the REFCL technology is installed safely and operates in line with requirements set by the Victorian Government and overseen by the safety regulator, Energy Safe Victoria.

## Planning

To minimise the impact of our installation works on the community from local traffic management or the potential for electricity outages, we start planning several months before work begins to ensure household and business customers are well informed.

## Installation

While the main REFCL equipment is located in the zone substation, extensive work is also required on the high voltage powerlines supplying the surrounding area from that zone substation.

The network must be strengthened and balanced so that our assets are capable of handling the voltage increases that result from the voltage being cut from one of the three phase powerlines.

It is possible some customers may experience a small number of planned outages during this construction phase. We'll provide information about the planned outages via post beforehand.

## Commissioning

Following the installation, we need to test that everything is working. This includes simulating faults on the network.

Our commissioning team usually works overnight to minimise the impact to customers. In the unlikely event that you experience an interruption to your supply during this stage, our team will be on standby to restore power as quickly as possible.

## This is part of our safety systems

Powercor is committed to delivering the REFCL Program in the interests of community safety. This forms part of our broader annual bushfire mitigation program and our work to ensure we provide safe, reliable and affordable electricity to our customers.

REFCLs protect against single-phase to earth faults which have been found to be the most common fault type. They are not designed to protect against other

types of faults which can be caused by a range of factors including extreme weather, car crashes or animal interference. For these faults, including any within our single phase or SWER network, there is a wide range of other protection systems operating to ensure the health and safety of our people, communities, the environments we operate within and our assets.

## Be prepared for power outages

### We recommend you follow these steps ahead of planned outages

- Be prepared to implement your power interruption plan if you are a life support customer reliant on the power supply
- Turn the temperature control on fridges and freezers to the coldest setting for at least two hours before planned outages and make sure all food is well covered
- Back-up and switch off computers and fully charge laptops and mobiles
- If you use an electric water pump, prepare a supply of water for any household or livestock needs
- If you have electric hot water, carry out all tasks requiring hot or boiling water in the morning
- Make sure automatic gates or garage doors can be opened and closed manually
- Think about alternative arrangements you or your community could make during planned outages, like school excursions or community BBQs, and contact us if we can help make them happen

Contact us on **13 22 06** during business hours or visit **[Powercor.com.au/REFCL](https://www.powercor.com.au/REFCL)**

# Bushfire Safety Program



Good people  
in power

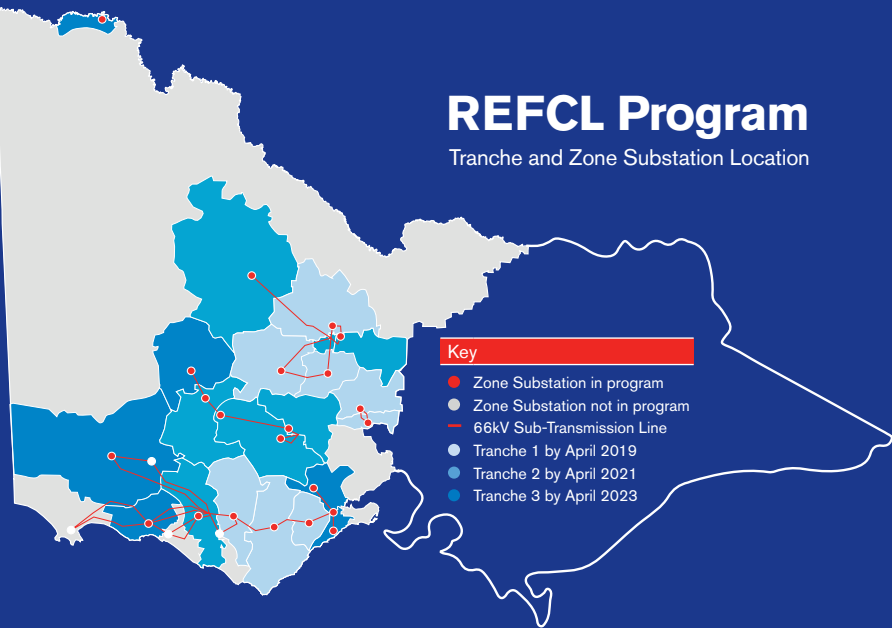
# We're making your power network even safer

Powercor is installing leading-edge technology across our electricity network as part of a Victorian Government program to reduce the likelihood of powerline-related bushfires.

Known as Rapid Earth Fault Current Limiters (REFCLs), the technology works like a large safety switch on our electricity network, reducing the risk of fires starting from faults on 22kV, multi-wire powerlines. These typically have three distinct lines spanned

between power poles as opposed to Single Wire Earth Return (SWER) lines which have only one, or low-voltage lines which have four.

Between 2017 and 2023, we're installing REFCLs in 22 of our electricity zone substations across Western Victoria's highest bushfire risk areas delivered in three project tranches.



## REFCL Program

Tranche and Zone Substation Location

### Key

- Zone Substation in program
- Zone Substation not in program
- 66kV Sub-Transmission Line
- Tranche 1 by April 2019
- Tranche 2 by April 2021
- Tranche 3 by April 2023

### We're installing REFCLs near you

#### Tranche 1

CDN Camperdown  
CMN Castlemaine  
CLC Colac  
EHK Eaglehawk  
GSB Gisborne  
MRO Maryborough  
WIN Winchelsea  
WND Woodend

#### Tranche 2

ART Ararat  
BAN Ballarat North  
BAS Ballarat South  
BGO Bendigo  
BETS Bendigo Terminal Station  
CTN Charlton  
TRG Terang

#### Tranche 3

GHP Gheringhap  
HTN Hamilton  
KRT Koroit  
MBN Merbein  
STL Stawell  
TOY Torquay  
WPD Waurn Ponds

# We're reducing bushfire risk in your community

When a powerline comes into contact with the ground or a tree, the energy released can cause a large spark. The line can continue sparking if it remains live, increasing the potential for a fire.

The REFCL works like a large safety switch. It is able to detect when one line out of a three-phase powerline has fallen to the ground and almost instantly reduces the voltage on the fallen line. At the same time, it will boost the voltage on the two remaining lines in service.

This means we can maintain power to homes and businesses while substantially reducing the fire risk.

After a few moments, the device checks if the fault is still present. If it is temporary, then power is restored to the line and voltages return to normal. If the fault persists, power to all three lines will be shut off to protect against fire risk and make it safe for our crews to fix.

While the safety devices are in operation all year round, on days of Total Fire Ban they will operate at heightened fault sensitivity, in line with regulatory requirements. When they operate, crews patrol the line to determine the cause of the fault and ensure it is safe for the community before switching power back on.

The REFCL Program was developed in response to recommendations of the 2009 Victorian Bushfire Royal Commission.

The work to install REFCLs is one of the most significant changes the electricity industry has seen in more than 30 years. Our program of work and budget is approved by the Australian Energy Regulator.