

POWERLINE BUSHFIRE SAFETY PROGRAM

REFCL Program Fact Sheet

Fact Sheet
1

REFCL PROGRAM OVERVIEW

What are we doing?

AusNet Services is installing leading-edge technology across its electricity network to reduce the risk of powerline-related bushfires.

The technology, known as Rapid Earth Fault Current Limiter or REFCL, is being installed in selected hazardous bushfire risk areas.

It is estimated that REFCLs could cut powerline fires in Victoria by about 50 per cent, according to the Victorian Government's Powerline Bushfire Safety Taskforce.

This initiative is mandated by the Victorian Government and is part of a broader Powerline Bushfire Safety Program aimed at improving safety across Victoria's power network.

Other work aimed at reducing the number of fires started by electricity assets includes:

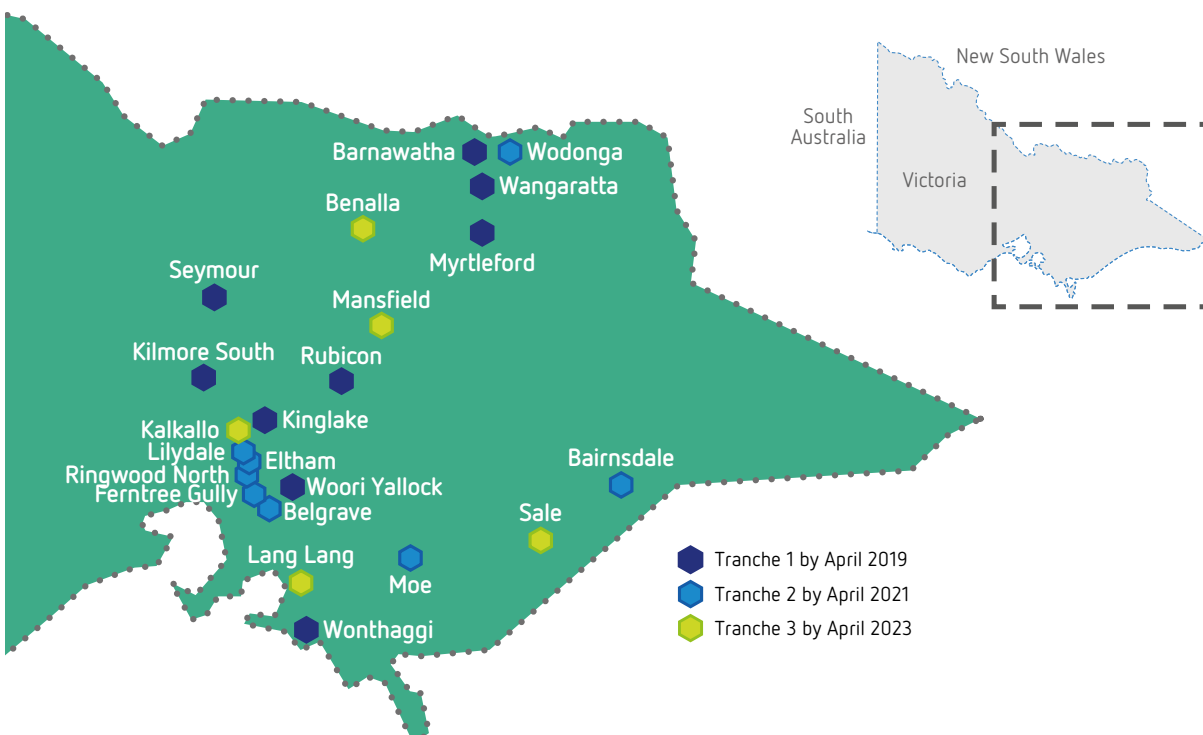
- > Undergrounding or covering of powerlines in very high-fire risk areas;
- > More frequent inspections and maintenance; and
- > Intensified vegetation management and clearing programs.

Where is it being done?

AusNet Services will install REFCLs in 22 locations in outer Melbourne and across northern and eastern Victoria.

In 2016, the first REFCL was installed at the Woori Yallock zone substation servicing the surrounding areas including Warburton and Healesville. It began operating early in 2017.

REFCLs will be installed at:



If you have any other questions about this program, please contact us on 1300 360 795 or pbsp@ausnetservices.com.au



What does it mean for you?

This new technology is designed to reduce bushfire risk across the network. In some instances power will need to be temporarily cut to install and test the technology safely. This will affect some households and businesses at different locations across the selected regions.

AusNet Services will notify customers well in advance of any planned outages. Customers can also keep informed through AusNet Services' outage tracker map, which provides detailed information about power interruptions, including expected restoration time. This can be found on our website (www.ausnetservices.com.au).

Customers will also receive outage updates via SMS if they have registered their mobile number with their electricity retailer. Once the technology is installed, the devices will undergo testing. During this phase, there is a small possibility there may be unplanned power interruptions.

When REFCLs are operating, customers might experience more outages on Total Fire Ban days or Code Red days. On these days, the technology will shut down sections of the network where an earth fault is detected to reduce the risk that the fault causes a fire. Crews will be on standby to fix faults as quickly as possible.

What is a Rapid Earth Fault Current Limiter (REFCL)?

A Rapid Earth Fault Current Limiter (REFCL) is a type of electricity network protection device that operates similar to a safety switch on AusNet Services' electricity distribution network.

It was originally developed for its reliability benefits in Europe. In Victoria, however, it will be used to help reduce the risk of bushfires. Trials of the technology were conducted in 2014 and 2015.

How does a REFCL work?

As the name suggests, the REFCL limits the amount of energy released when an earth fault occurs on a powerline.

An earth fault occurs when a connection is made between a powerline and the ground. This could occur as a result of a fallen powerline, a tree falling against a powerline or wildlife touching the pole and powerline at the same time.

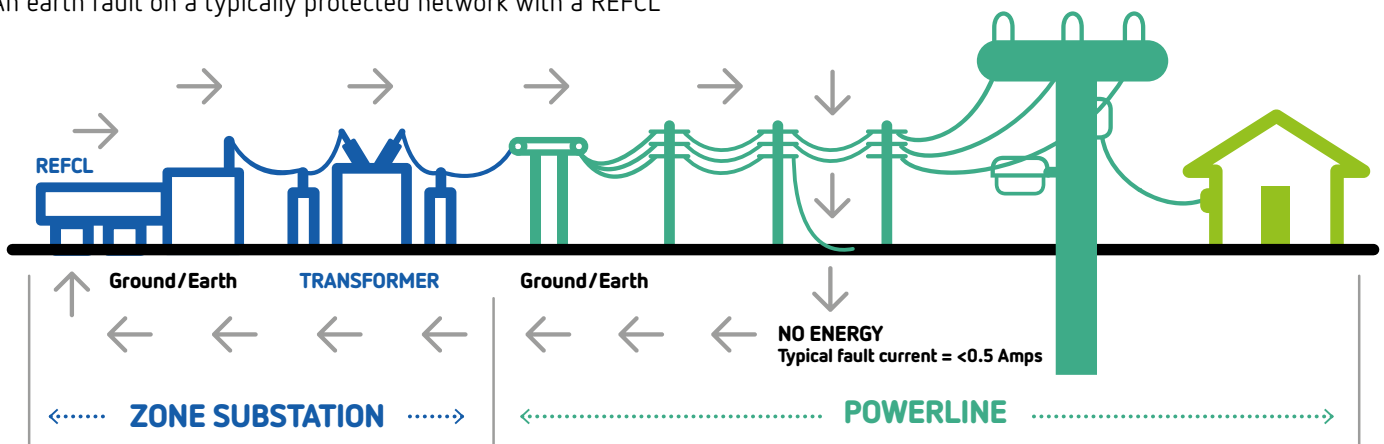
When a fault occurs, a REFCL detects and significantly limits the energy flow within a tenth of a second. This reduces the possibility of a fire being started, or of a person or animal nearby receiving an electric shock.

If the fault is able to fix itself quickly (for example a tree branch that had touched the powerline then falls away), customers will not be affected. Currently, without a REFCL, these faults can cause power to turn off for several minutes, lead to fires or even property damage. If the fault remains (for example a tree has fallen on a line or a car has hit a powerpole) then all power will be cut around the fault area.

If you would like more information on the REFCL installation or broader powerline bushfire safety works that AusNet Services is implementing, please visit our website at <https://ausnetservices.com.au/pbsp> or the State Government website at <https://www.energy.vic.gov.au/electricity/powerline-replacement-fund/powerline-bushfire-safety-program>

AusNet Services REFCL Introduction

An earth fault on a typically protected network with a REFCL



When an earth fault occurs a REFCL detects and cuts the energy flow within a tenth of a second on the powerline that has the fault. This reduces the possibility of a fire being started.

If you have any other questions about this program, please contact us on 1300 360 795 or pbsp@ausnetservices.com.au