

Victorian communities need power shut off during bushfire threat, energy economist says

ABC South West Vic / By Charlotte King

Posted Mon 26 Oct 2020 at 8:08am



The aftermath of the fires at Kilmore East. (Supplied: Stella Reid)

An energy economist has proposed switching electricity off in isolated Victorian communities on days of extreme weather because it is taking too long to replace potentially dangerous powerlines.

Powerlines have been linked to some of Victoria's most catastrophic bushfires, including the Kilmore East fire on Black Saturday in 2009 that killed 119 people.

The Victorian bushfires royal commission recommended the progressive replacement of thousands of kilometres of bare-wire lines to reduce the risk.

But this month an auditor-general's report confirmed the majority of work to make electricity infrastructure safer in the state's most fire-prone areas had not been done.

They found that, at the current rate of replacement, it would take between 30 and 50 years for Powercor and Ausnet to replace the lines.

The Environment Department and Energy Safe Victoria said this was "too slow to reduce the remaining risk".

Economist Bruce Mountain, director of the Victoria Energy Policy Centre, said electricity consumers and taxpayers had contributed roughly \$1 billion to making electricity infrastructure safer.

Key points:

- Powerlines have been linked to some of Victoria's most catastrophic bushfires
- A program to bury or replace lines in fire-prone areas is expected to take another 30 to 50 years at its current rate
- An energy economist has suggested shutting off electricity on high-risk days in some areas to minimise bushfire danger

But Mr Mountain said it might be time for a new approach.

"Knowing what it's cost to do the first 15 per cent of lines and the budgetary implications of that, it's wise to think again," he said.



Bushfires left a path of destruction through Garvoc, in western Victoria, in 2018.

(Supplied: Energy Safe Victoria)

Flowerdale nervous ahead of summer

Of the \$750 million of state funding dedicated to its Powerline Bushfire Safety Program, the Government has spent \$188 million burying or insulating powerlines in high-risk areas, reducing the fire risk by at least 90 per cent.

But the auditor-general found that works had only been done in 11 of the 33 areas prioritised by state agencies as "high risk".



Alison Powell, pictured with her niece, saw her home destroyed in the bushfires that ravaged Flowerdale. (AAP: Catherine Best)

Laws passed in 2016 require power distributors to complete the remaining replacements across high-risk areas.

The small hamlet of Flowerdale, 90 kilometres north of Melbourne, is in one of the 22 high-risk areas where works are incomplete.

Of the 119 people who lost their lives on Black Saturday in the enormous Kilmore East fire, 11 died in and around Flowerdale.

Former mayor of Murrindindi Shire Lyn Gunter returned to Flowerdale after the fire to find a wasteland.

"Everything was in sepia ... just black and cream," she recalled.

"There weren't any birds, there weren't any animals. Everything was gone."

Ms Gunter said private contractors working for Ausnet insulated powerlines on her street last year, but other streets in Flowerdale remained untouched with another hot summer just around the corner.

Flicking the switch

In a statement, energy provider Ausnet said it had made a submission to the Australian Energy Regulator to propose "a program of accelerated replacement of an additional 100km of line, including in the Murrindindi or Flowerdale regions, with a combination of insulated conductor and underground cable".



Lyn Gunter was Flowerdale's mayor when the Black Saturday bushfires tore through in 2009. (ABC Ballarat: Charlotte King)

The company said it was also implementing safety initiatives including its Rapid Earth Fault Current Limiter (REFCL) program that had already been installed at the Seymour substation, which supplied Flowerdale and Kinglake.

The device is designed to reduce power on the line when it detects faults in the network, and according to the auditor-general reduces the fire risk by about 58 per cent in installed areas.

"A REFCL will reduce risk because it covers entire feeder lines, which distribute to the local street level," the Ausnet statement said.

Energy provider Powercor said it was reviewing the auditor-general's report in full, but that it had "met all deadlines set by the [Victorian Bushfires Royal Commission] recommendations and resulting legislation and regulations".

Government estimates of the total cost of insulating bare-wire powerlines in regional areas are about \$20 billion; burying them would cost double that amount.

Mr Mountain said, given the enormous cost of completing the small amount of work done so far, it was time for a rethink.



Shutting off the electricity in fire-prone areas on high-risk days is a common practice in the US. (Reuters: Kyle Grillot)

He said "pre-emptively switching off some parts of the circuit" was accepted practice in the US to reduce the risk.

"In the recent fires on the west coast they shut off bits of the distribution network," Mr Mountain said.

"The network can be switched off at a whole range of points, so you can go quite deeply into the distribution network and isolate the switch-off so that small communities and small areas are actually isolated.

"It can be quite localised, and it can be managed in time, so it's just for an hour or two, while the risk is most keenly felt.

"Obviously it's inconvenient for the people living there, but in terms of risk management it's a very good deal cheaper."

No power, no water

But Lyn Gunter said that would not work for her community.

"I don't have mains water power ... I have tank water," Ms Gunter said.

"So if I have the electricity shut off, then I haven't got any water.

"I understand it can make places safer, but it cannot assist the communities that are there."



The Kilmore East fire was one of Australia's deadliest. (ABC News)

Mr Mountain said generators could be provided to communities with tank water to counter that problem.

"A little diesel or petrol generator can give you the motive force for the pumping," he said.

"And those properties that are bush exposed, if they don't have it already, a government program at not terribly much cost could handle that risk."

The Victorian Government's bushfire taskforce considered the switch-off option in the wake of the bushfire royal commission but found the benefits were outweighed by further risks, including to electrical equipment used to monitor and communicate fire activity, which considerably increases the risk for communities.

They also found it posed a significant health and welfare risk to vulnerable members of the community who relied on medical equipment and air-conditioning.

The Environment Department has accepted the auditor-general's recommendation that it investigate ways to speed up the rate of powerline replacements.

In a statement, the department said its powerline safety programs had led to "transformational change to reduce the risk of bushfires being ignited by power infrastructure".



Powerlines have been linked to fires across the state, including the Garvoc blaze. (ABC News: Karen Percy)

"This program is projected to reduce the electricity network's relative bushfire risk — that is, the chance an electric powerline could start a bushfire — by up to 60 per cent on average on high voltage powerlines across the state, with significantly higher risk reductions in some of the highest bushfire risk areas," the statement said.

Ms Gunter said the public needed to be better informed about the level of risk they were in.

"There should be a plan and it should be put out to the public to say: this is what we're going to do, and this is how we're going to do it," Ms Gunter said.

"You would think that they would understand these communities and treat them with a little more respect."