

Power pole sustainability

Q&A

1. Why did ESV need to do this report?

After the devastating St Patricks Day fires of 2018, ESV began an investigation into the Powercor's wood pole asset management processes. On its own volition Powercor made some initial changes to its practices – increasing the frequency of inspections and tightening the timeframes for pole replacement.

With these initial changes in place, ESV concluded in its July 2019 investigation report that there was no immediate systemic risk of pole failures in the South West at that time. ESV, provided a commitment that it would do further work over the subsequent six months to assure itself and the community that Powercor's wood pole management process will deliver sustainable safety outcomes for the community in the long term. This report addresses the findings of that further work.

The objective of this further investigation was to determine the long-term effectiveness of Powercor's pole asset management and pole condition assessment practice. The investigation involved examining the end-to-end process of Powercor's wood pole asset management.

ESV has now determined that Powercor needs to make further, improvements to its wood pole management process, requiring thirteen recommendations to be addressed. Ten of the recommendations are directed at Powercor to improve its wood pole management regime to deliver sustainable safety outcomes for the future. Three further recommendations require reporting protocols and performance measures to be established that will ensure Powercor implements the ten recommendations.

2. ESV previously reported that 'Powercor's inspection practices were found to be adequate'. Isn't this inconsistent with the findings of this report?

ESV's July 2019 report concluded at that time, with the changes Powercor made to its pole inspection and maintenance practices, and the condition of its wooden pole population, there was not an immediate risk to the community of greater numbers of poles failing now or anytime soon.

ESV, in that report, undertook to do further work to assure itself and verify whether the changes in maintenance and inspection practices would deliver sustainable outcomes into the future. That further work has resulted in this report. Its findings are not inconsistent with our initial findings.

The laying of charges against Powercor underscores ESV's allegations and view that Powercor failed to meet its general duties under the Act to minimise risks as far as practicable on St Patrick's Day 2018.

3. What changes does Powercor need to make for the power poles to be safe?

ESV has made thirteen recommendations which, when adopted will deliver sustainable safety outcomes for the community. These include:

- improved inspection practice and rigour
- improved training of power pole inspectors and clarification of their responsibilities
- better methodology to predict the likelihood of pole failure over time, particularly in high bushfire risk areas
- taking cognisance of the consequence of a pole failure when assessing it for replacement by implementing risk-based asset management practices
- exploring options for technology that will improve the accuracy of pole condition assessments.

4. How can we be sure that Powercor will make the necessary changes?

Using its powers under the *Electricity Safety Act 1998*, ESV will require Powercor to:

- develop a wood pole management improvement plan which must include all ESV's requirements and provide it to ESV by 5.00 pm, 28 February 2020
- include its improvement plan in its Bushfire Mitigation Plan that it must comply with
- update all its wood pole management documentation
- deliver the promised wood pole replacement/reinforcement volumes.
- ESV will ensure Powercor implements the improvements by:
 - monitoring Powercor's delivery of its improvement initiatives against its plan until all recommendations have been delivered and enforce compliance if required
 - monitoring Powercor's wood pole performance (such as pole failures and volume of replacements/reinforcements) every quarter and take action if required.

ESV will also revise wood pole safety performance reporting requirements for all the other major electricity companies in Victoria.

5. Does Powercor have a dangerous network?

The overhead electrical network by its nature has inherent risks. The likelihood of a pole failing before it is replaced is extremely small, but it does happen. The aim of Powercor's wood pole management process and practices are to replace (or reinforce) poles before they fail.

Whilst ESV has determined that there is not an immediate systemic risk of wood pole failures in Powercor's network, it must improve its process and practices to ensure sustainable safety outcomes for the future.

ESV has set out its requirements to achieve this in the recommendations contained in this report.

6. Why isn't there a process to monitor the safety of power poles?

There is a process in place. The process is detailed in Powercor's Electricity Safety Management Scheme (ESMS) and Bushfire Mitigation Plan (BMP), as accepted by ESV. The investigation has concluded that some of their practices are not sustainable for the long term and require improvement.

The regime does not involve the regulator independently examining all power poles to verify their condition. It does involve regular auditing of Powercor by ESV to ensure their processes are effective and they are complying with their ESMS and BMP.

7. Why didn't ESV pick up on these dangerous power poles earlier?

The responsibility for effectively managing individual power poles rests with the owner and manager of those poles, which in this case is Powercor.

Powercor has recognised the need to improve its management of its wood poles and has improved its wood pole inspection and other practices, with more changes to follow. ESV's investigations following the St Patrick's Day fires has identified opportunities to improve its monitoring of the safety of wood pole assets in Victoria and it has already taken steps to employ more compliance officers who will audit Powercor's inspection performance.

8. Are there enough power poles to meet future demand?

ESV's investigation concluded that Powercor will be able to procure enough wood and concrete poles to meet future pole replacement demands, provided that Powercor confirms its requirements to its suppliers 12 months in advance.

9. Do other electricity distribution networks have the same problems?

Based on ESV's regular audits, field inspections and analysis of pole failures, ESV believes there is no immediate risk to the community. That said, ESV will investigate the pole management practices of the other Victorian distribution businesses in 2020 to determine if they will deliver sustainable safety outcomes into the future.

10. Did ESV know about the Powercor RCM report or was it 'secret'?

Yes, ESV was aware that the CitiPower/Powercor independent Reliability Centred Maintenance (RCM) study report was being produced. The RCM study report was being written while ESV was undertaking its own further technical investigation. Powercor provided some initial findings, which were considered as part of ESV's investigations and incorporated into the draft ESV report.

11. What is the difference between the Powercor RCM report and ESV's investigation report?

The CitiPower/Powercor Reliability Centred Maintenance (RCM) study report is focused on improving the assessment of the condition of wood poles and how poles' condition changes over time for both networks. This is important work. ESV's investigation report looks more broadly at pole management practice, looking at all (end-to-end) aspects of Powercor's pole management practices, from inspection, selection, remediation actions, and replacement forecasting with power poles.

ESV also notes in its Technical Report that Powercor is now moving away from RCM and towards a risk-based approach

12. Why does the Powercor RCM report quote 384 pole failures and only 209 reported to ESV?

There is no inconsistency. The CitiPower/Powercor RCM study report included in its statistical analysis the 209 unassisted pole failures over the last decade and a further 175 Unserviceable P1 poles that were identified for immediate replacement for both companies. This was done just for analysis purposes in its RCM study to provide a larger dataset and greater confidence in the results of the RCM study and analysis. CitiPower/Powercor's reported 209 pole failures to ESV was consistent with ESV reporting requirements.

13. Why does the ESV report state a four-fold forecast increase in pole replacements compared to an 8-fold increase in the RCM report?

During ESV's investigations, ESV was aware of the CitiPower/Powercor RCM study. As Powercor had not completed the final RCM study report, ESV could not include any clear conclusions from the study into the ESV draft report. ESV has only recently received the final report and is in the process of analysing the full details of the RCM study.

An initial review would suggest the RCM study report used the number of poles replaced or reinforced by CitiPower/Powercor in 2018 as its starting point. The ESV report uses the Powercor average number of poles replaced or reinforced over the five-year period (2015-2019) as the starting point.

Once this analysis is completed early in 2020, the ESV investigation report will be amended prior to its finalisation.