

# Reliability and Cost - Frequently Asked Questions

**Storms are getting more frequent and more damaging to electric systems around the state. What is VEC doing to improve reliability given these changing circumstances?**

VEC is taking a range of steps that we have deemed to be strategic and cost-effective to improve the reliability of the system over time. For example, where it makes sense, we are moving lines from forested rights-of-way to roads for easier access. We are upgrading wire size to accommodate increased electrical use and utilizing coated “tree” wire to mitigate outages caused by incidental contact between tree branches and lines. We continue to seek as many options as possible for federal funding for improvements that make the system more resilient, sometimes called “hardening.”

**Why doesn't VEC just bury the electric lines?**

In most cases, an overhead electric system makes the most sense because it offers the co-op flexibility and lower costs. Overhead lines allow us to easily add customers and make other improvements to the power system.

Underground systems cost about six to ten times more than overhead to install. With underground lines, it's also generally much harder to make changes and perform upgrades and repairs. While underground systems are less susceptible to outages than exposed overhead lines, when outages do occur, especially during frozen ground conditions, they generally last three to four times longer than overhead outages. Moreover, underground systems are often less efficient at delivering electricity in part because underground lines cannot easily dissipate heat. With all that said, VEC does bury lines in targeted areas. For example, in 2015, VEC used a FEMA hardening grant to bury a section of line that had repeatedly experienced outages near Gillette Pond in Richmond. We relocated the line from a heavily-forested, sloped area to a roadbed to improve reliability and save money on continued maintenance. This section of line had little to no potential for future changes, and therefore less need for flexibility or system modifications.

**Does VEC proactively trim trees to reduce the threat of power outages? Can you do more of that or do it differently?**

Yes, we do proactively trim trees. And, VEC plans to significantly increase our vegetation management in the coming years so that by 2020 we are clearing 240 miles of line every year, at a minimum. Today our minimum is 200 miles. As we execute our planned vegetation management, we also contend with hazardous trees and other specific safety and reliability concerns as needed. We sometimes refer to this as “hotspot” maintenance.

**Why doesn't the co-op bite the bullet and seriously boost spending on grid “hardening” so we can significantly reduce outages?**

We hear from our members that they want us to improve the reliability of our system over time, and they also want us to minimize rate increases. So we are always trying to strike a balance. We are proud we have been able to make important investments while keeping rates stable for the last five years. Vermont’s landscape, the vagaries of our weather and the changing energy environment mean there is no single, magic solution - but with the steps we are taking now and in the coming years, we’re confident we’ll continue to strengthen our system in a cost-effective manner.

*Adapted from an interview with Chief Operating Officer Peter Rossi, “Keeping the Lights on and the Costs Down: Striking the Reliability Balance” that appeared in the winter 2019 issue of Co-op Life.*