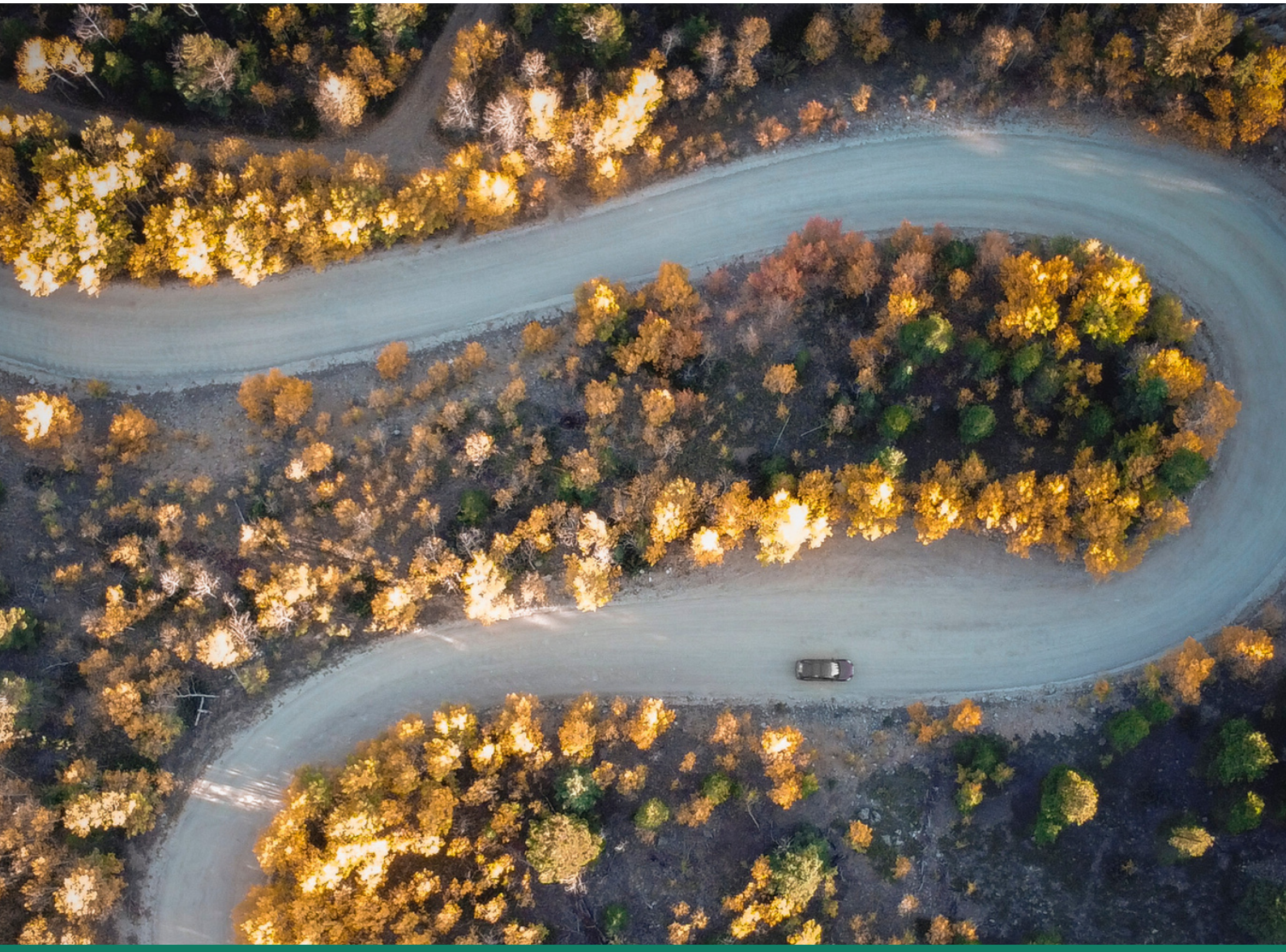


CASE STUDY

Holy Cross Mitigates Community Wildfire Risk and Increases Reliability with Satellite Vegetation Intelligence

Holy Cross Energy (HCE) is an electric cooperative providing safe and reliable power to more than 53,000 customers across Western Colorado. Driven by their mission to combat climate change, Holy Cross is paving the way for cleaner, sustainable power among electric cooperatives in the United States.

Prioritizing sustainability and reliability for members in Western Colorado

Beyond their already ambitious sustainability and reliability goals, the HCE team is also facing ever-growing wildfire risk in the expanding wildland-urban interface (WUI). With a growing customer base spanning both rural communities and ski towns like Aspen and Vail, they are using an innovative vegetation management strategy to meet their community's needs while keeping rates low.

Jeff Wissing, Holy Cross's "home-grown" vegetation management supervisor, has been an instrumental part of that mission since joining the team as a tree trimmer in 1993. He's gotten to know the members whose trees he's trimmed for years, and has witnessed firsthand the impacts of climate change across such familiar territory.

A proactive approach to vegetation management

When observing these developing trends more than a decade ago, the Holy Cross team decided to take a more proactive approach to their VM strategy, starting by rewriting their policy to include greater clearances based on NERC transmission guidelines. Getting buy-in from members for a 10-foot trimming bubble initially caught some pushback, but Wissing used every conversation as an opportunity to build closer relationships with the HCE community.

Today, beyond their goals of providing 100% clean, affordable energy by 2030, HCE aims to improve the reliability indices of SAIDI/SAIFI scores to be in the top 10% of US cooperatives. To hit these targets, HCE knew they needed to push further than increased electrical clearances—and satellite vegetation intelligence offered the situational awareness they needed across their entire system.

Network-wide vegetation analysis

With grow-in and encroachment risk under control, HCE saw an opportunity to build a vegetation management program that tackled risk faster and more strategically than before.

Satellites vs LiDAR vs foot patrol

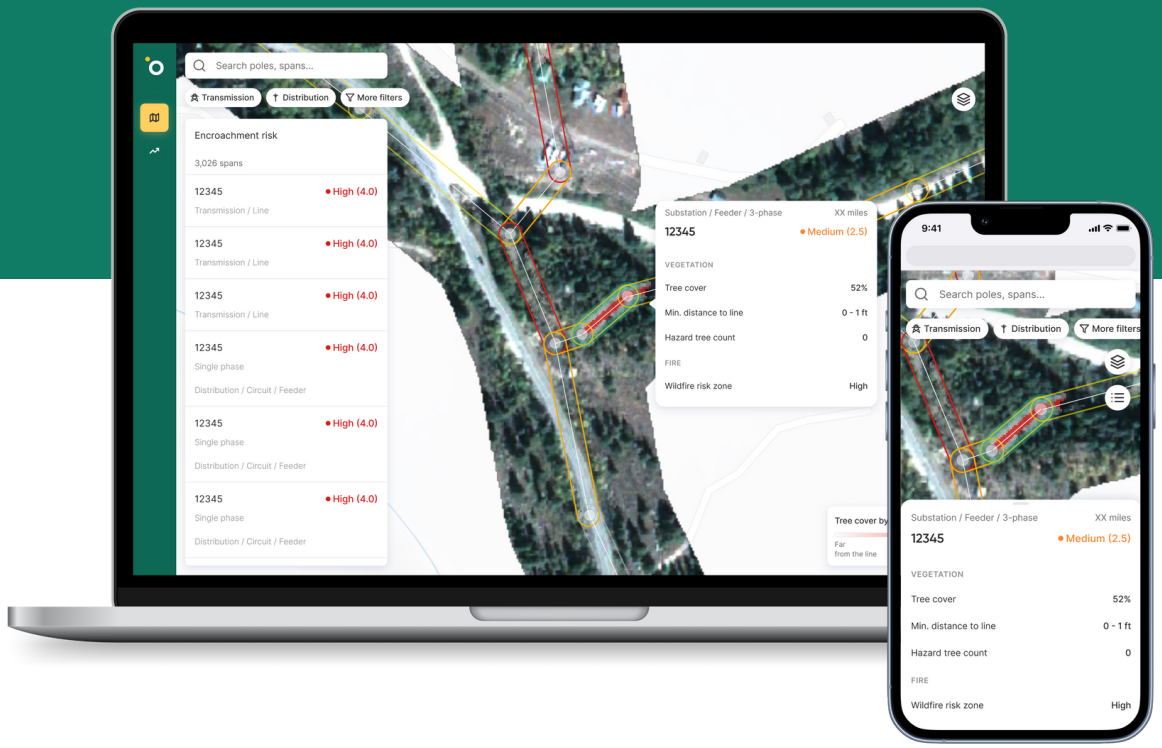
Network-wide foot patrol is highly subjective, labor-intensive, and time-consuming, taking 2+ years to complete a full assessment. Costly LiDAR flights and the necessary data processing take 6 months, but even then, data is often outdated by the time it becomes usable.

Satellite vegetation intelligence offers a much more cost-effective solution and delivers accurate network-wide data in weeks. That quick, objective overview of their territory was the solution HCE needed to prioritize and plan impactful trimming immediately.

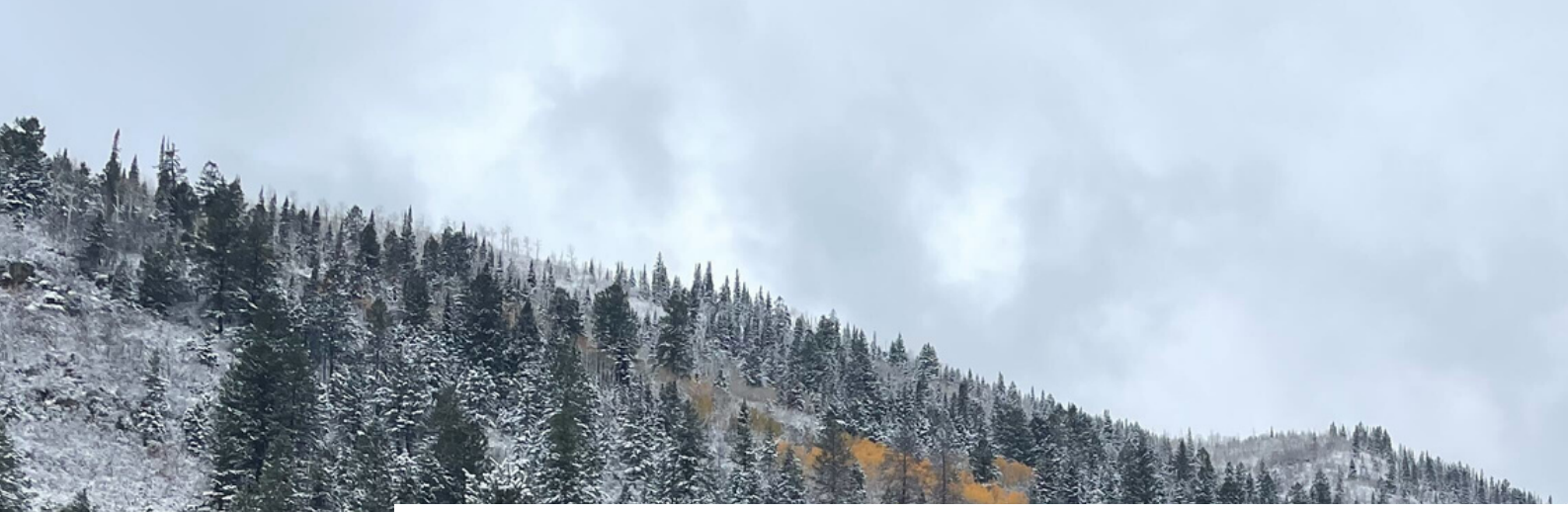
Choosing the right vegetation intelligence partner

In their search for a satellite vegetation analysis partner, HCE pinpointed a few key factors that would be critical to their success, namely:

- The ability to spot tree mortality and decline
- Functionality to prioritize trimming based on impact to SAIDI
- Field-validated precision and accuracy
- A partner who would tailor vegetation analysis and recommendations to HCE's hard-won local expertise
- The ability to share critical information both within the organization and externally with regulators, contractors, and landowners



HCE's team tested other tools and technologies on several spans, and ultimately chose Overstory as their strategic vegetation intelligence partner. Initially skeptical that satellite vegetation intelligence would live up to its claims, Wissing did a lot of firsthand field validation by walking the lines to verify Overstory's accuracy and results. "[Overstory] came through with the data they said they would," he explained.



Collaborating together for best-in-class results

Partnering with Overstory has meant collaborating on critical issues that pose the greatest risk to HCE's network. Sharing their local vegetation expertise helps the Overstory team configure the tool to Holy Cross's specific needs. Together, they're fine tuning the analysis to prioritize high-risk vegetation— including hazard trees, overhang, and species under threat such as aspens and cottonwoods—to reduce wildfire risk and improve safety and reliability across their network.

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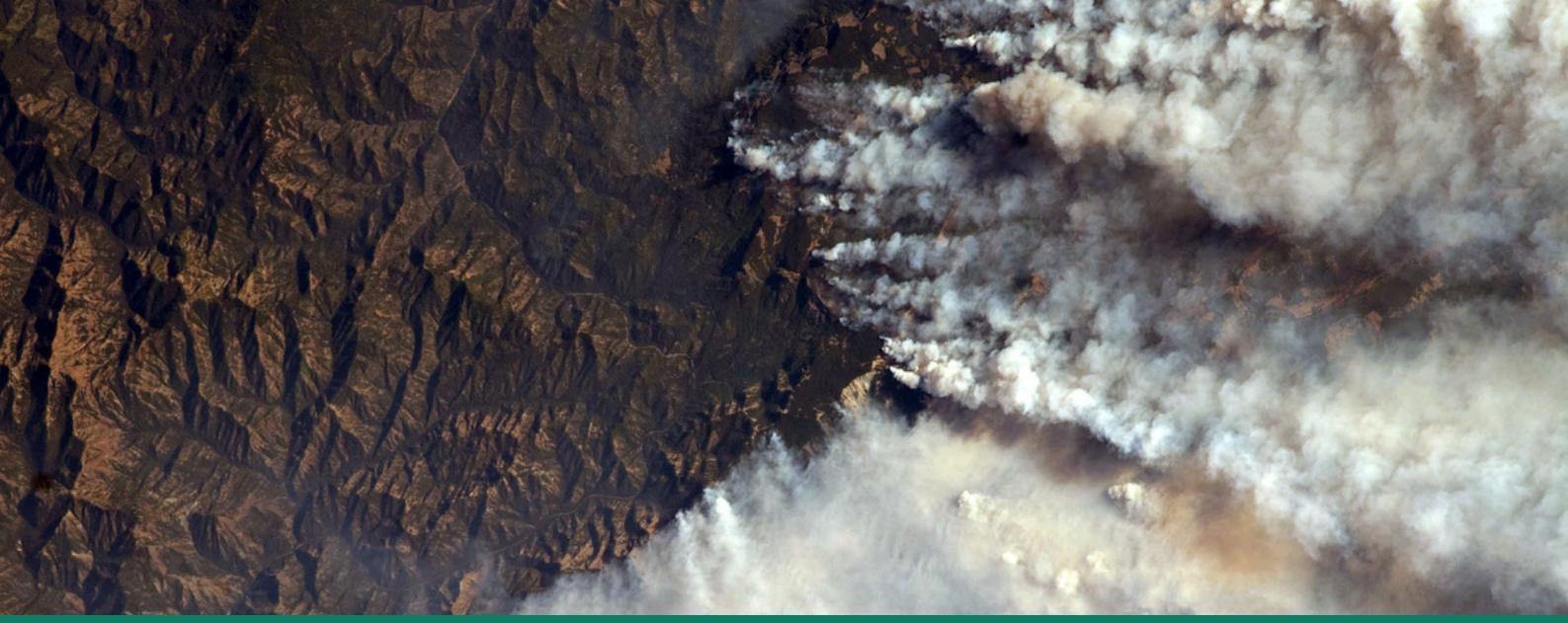

Pinpointing critical wildfire risk

During their first year together, Overstory provided HCE vegetation analysis for more than 18,000 spans over their entire network of more than 1,000 miles. Out of this area, Overstory identified five miles within a wildfire risk zone that needed immediate attention—a tiny percent of the entire network, but critical to managing the greatest risk—as well as dozens of hazard trees and beetle kill areas that would require close monitoring.

Pinpointing the exact location of the most impactful issues across their network enables HCE to create an effective, defensible, and immediately actionable wildfire mitigation strategy.

From cycle-based to risk-based vegetation management

Over the next few years, Holy Cross Energy will take a step-by-step approach to transition to a fully risk-based vegetation management strategy. Overstory's functionality—specifically visibility into overhang and SAIDI impact—allows them to transition gradually without overhauling their entire workflow at once.

In 2023, HCE is maintaining their cycle program while using Overstory's analysis to tackle the highest-risk spans and get ahead of immediate threats. In 2024, they'll use Overstory's vegetation analysis to make decisions not only about which spots they'll visit to trim, but also which spans in their cycle they *don't* need to trim, saving members from unnecessary costs and disruption.

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“My job has always been to just go cut the trees, but now, Overstory insights like SAIDI impact allow me to look forward and gauge the success of the transition from cycle-based to risk-based.”

Jeff Wissing, Vegetation Management Supervisor
Holy Cross Energy

Where is satellite vegetation intelligence impactful?

Utilities facing compounding labor costs, wildfire risk, and increased grid pressure in coming years need actionable, affordable network-wide intelligence if they hope to keep up. When asked if he thought the technology would work for utilities across different geographies, Wissing said, “I think this is something that’s viable for the entire industry.”

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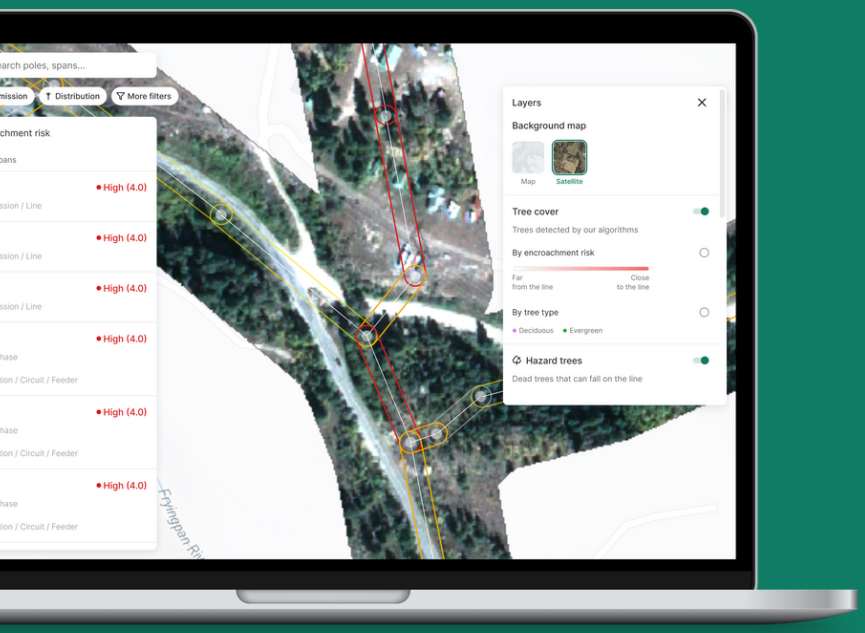
Strategic vegetation management powered by satellites and machine learning

Overstory gives vegetation management teams a bird's eye view of their network using satellite imagery and machine learning to prioritize the trimming work that matters most.

Because Overstory fits into existing vegetation management workflows from the start, utilities don't have to overhaul their cycle programs or replace existing work management tools to start making a difference immediately.

Rather than relying solely on annual cycles or reactive strategies alone, teams using Overstory can strategically plan risk-based, data-driven vegetation management work based on Overstory's configurable models—including overhang, hazard trees, wildfires, fall-in and grow-in potential, SAIDI impact.

By helping to proactively mitigate the risk of hazard trees and wildfires, Overstory helps VM teams make drastic impacts on key business metrics like outages, SAIDI, SAIFI, and O&M budgets.



Learn how Overstory can help you make smarter vegetation management decisions, starting with a custom risk framework.

Book a demo at overstory.com/demo

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