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Utah moves to protect electric system from failures, fires and sabotage

First \$12 million in federal funds comes as state sets course for hardening the grid.



(Rocky Mountain Power) Crew near Mantua in Box Elder County updates a power line with "non-expulsion" fuses to lower

By Tim Fitzpatrick | Sep. 2, 2023, 6:00 a.m.

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It could be a wildfire that knocks out a crucial power line and turns out the lights out for thousands.



It could be failing transformers, the likes of which can take months to replace because suppliers are cleaned out.

Or it could be evil intent: vandals trying to blow up a substation or a foreign power hacking its way into the computers that manage Utah's power.



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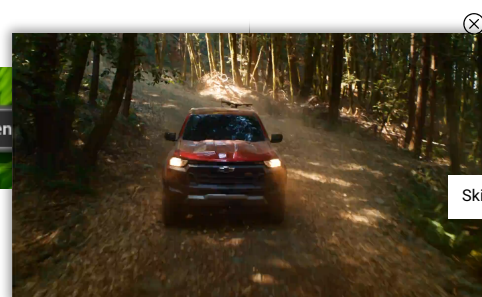
In all cases, the electrical grid is facing a rising threat, and the state is preparing to throw millions of federal dollars at plugging the gaps. The U.S. Department of Energy recently announced \$48.4 million in "grid resilience" funding, and [\\$12 million of that is destined for Utah.](#)

Every state and tribal nation is working to harden its system, and "Utah has been at the forefront" in recognizing and addressing the threats, said Rohit Nair, director of engineering and grid modernization for PacifiCorp, Rocky Mountain Power's parent company, which operates in six western states.

Tad Greener, regional economic competitiveness officer in the Utah Office of Energy Development, said the money is just the first installment of a \$35 million grant. The state will receive another \$5.7 million per year for the next four years.

The Utah Legislature in 2022 created a state [Grid Resilience Committee](#), and committee chair Chris Parker identified four major areas of concern at a legislative meeting earlier this month.

Parker, director of the Utah Division of Public Utilities, said the threats to utilities can be both physical and legal, pointing to huge settlements paid by California utilities and others after wildfires there.



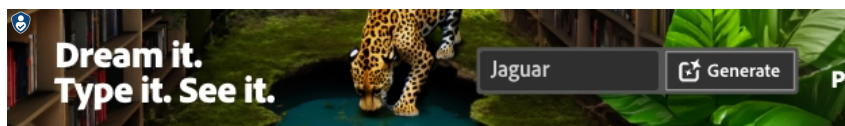
The four areas of concern:

Supply challenges for critical equipment • Parker said the supply chain for transformers and other equipment has still not



Nair said wire supplies have improved, but transformers continue to have long wait times.

Security Recent years have seen a [smattering of deliberate attacks on substations](#), and utilities have invested more in strengthening perimeters and in cybersecurity to keep systems safe from hackers, including foreign enemies.



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Jonathan Whitesides, spokesperson for Rocky Mountain Power, said the company did have one incident last fall where someone cut through a fence and stole copper wire, but the motive appeared to be theft, not vandalism.

Wildfires and extreme weather • Climate change has made aging lines and poles in the West more vulnerable, and Westerners are expecting more proactive management of the grid when fires threaten.

Greener and Nair believe wildfire and weather mitigation will be the most common purpose for grant money. “They’re pretty easy to do,” Greener said. Most of the time, that involves thicker covering on wires or fireproofing poles rather than burying lines, which is much more expensive.

Controls • The grid needs more sensors and more sophisticated software to monitor threats in real time and, if necessary, shut down sections to keep current flow from starting or spreading fires.

Whitesides said Rocky Mountain did shut down a line this summer near the Thompson Ridge fire near Beaver, but no customers went dark because the company was able to reroute power.

The state already has the money, but all projects still must be approved by DOE before they are funded. And the grants require matching money from the recipients. “When they have skin in the game, they drive the output,” said Greener.

In terms of Utah’s needs, the federal funding isn’t nearly enough to harden the full system, but it can address the most pressing situations. “In the grand scheme of things, we spend hundreds of millions of dollars on maintaining the system,” Nair said.

While Rocky Mountain manages well over half of Utah’s grid, it agreed to take only half of the federal grid-resilience money. The rest will go to the state’s municipal power systems and rural electric cooperatives. The rural systems in particular face outsized threats from fires and weather.

“We didn’t want PacifiCorp competing against the small utilities,” said Greener.

“Currently, UAMPS is working with its members on possible projects,” said Jessica Stev...
Power Systems, which represents more than 35 Utah cities and towns with their own po

