Increase Energy Reliability and Resiliency with PwrMetrix

A Case Study

How White River Valley Electric Cooperative Uses Data to Improve Community Resiliency

White River Valley Electric Cooperative
A Touchstone Energy® Cooperative

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More Outages After the Storm

Why are there still so many people without power after a storm? Several municipalities, states and companies are faced with increased pressure for energy reliability and community resiliency. As energy prices increase and an impending labor shortage continues, several utilities are using a proactive approach to reduce future outages.

Specifically, using a data-driven approach to prioritize which projects will provide the best return on investment.

Some utilities are building out Distributed Energy Resources (DERs) and microgrids. However, some utilities don't have the density nor the budget to increase resiliency.

They are turning to data and AI for solutions. These solutions are easy to implement to reduce outages and affordable for any size utility.

This case study describes how one utility uses quality data to support their electric memberships' energy needs.

ABOUT THIS CASE STUDY

Chris Hamon is CEO of White River Valley Electric Cooperative (WRVEC). His team uses data to understand the return of future investments and maintain revenues.

Beau Jackson is Manager of Engineering for WRVEC. His team leverages data to prioritize their daily needs to reduce outages and increase resiliency.

Profile of WRVEC

- **Established in 1939**
- **5 Counties in Missouri**
- **44,000 meters served**
- **Covering 2,500 square miles**

Chris Hamon
CEO, WRVEC

Beau Jackson
Manager of Engineering,
WRVEC

A STRATEGY THAT STARTS AT THE TOP

Chris Hamon, CEO of WRVEC, explains how his team is moving towards a proactive data-driven approach.
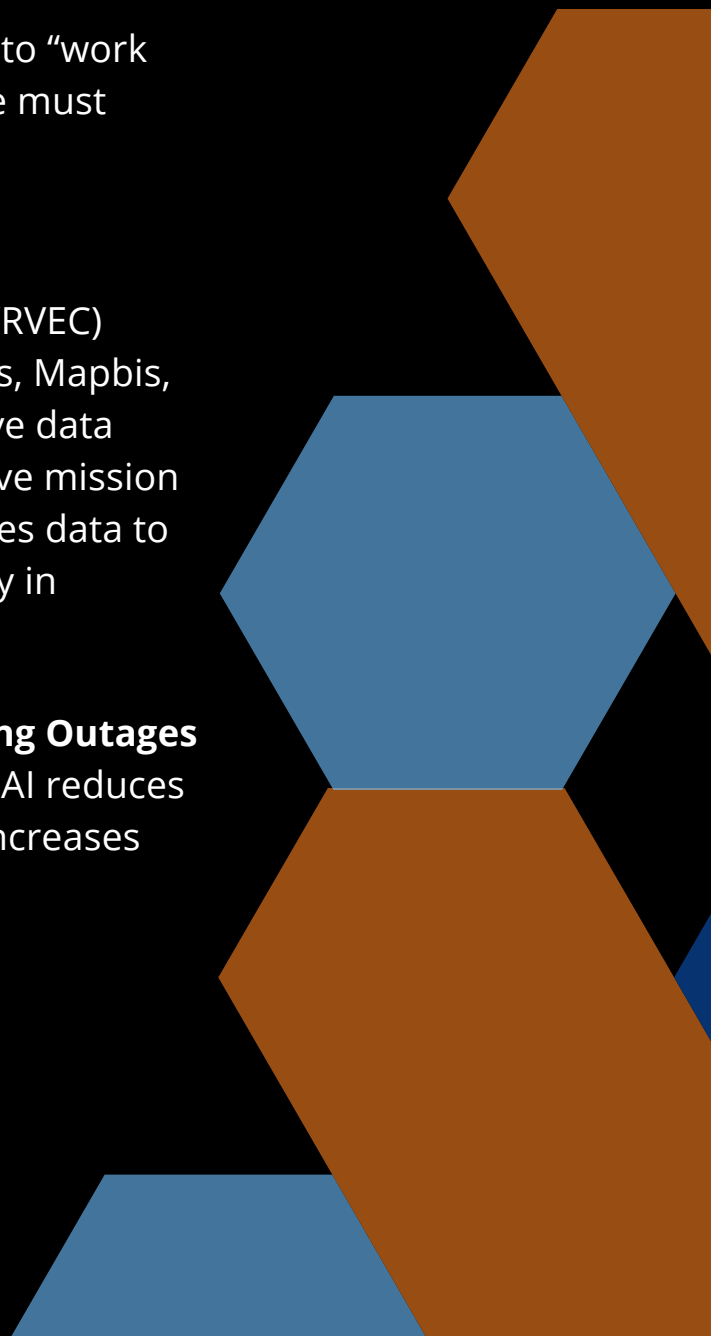
Work Smarter, Not Harder
Mr. Hamon instructs his team to use data to "work smarter, not harder". At WRVEC, everyone must embrace a data-driven approach.

Pick Collaborative Partners
White River Valley Electric Cooperative (WRVEC) collaborates with NRECA, Aerinet Solutions, Mapbis, and Genetica.ai to implement cost-effective data solutions.   Mr. Hamon lives the cooperative mission by educating others about how WRVEC uses data to continually provide affordable, safe energy in Missouri.

Savings With AI Extends Beyond Reducing Outages
 Mr. Hamon's team details how deploying AI reduces their cooperative's risk to their staff and increases revenue while decreasing costs.

A DAY IN THE LIFE OF WRVEC ENGINEERING

According to the U.S. Energy Information Administration, there are more power outages from 2018-2020, compared to 2013-2015. Beau Jackson knows that to be able to combat future outages his team must use data to prioritize future investment.

During this interview, a substation went out due to severe weather. Mr. Jackson explained that's a typical day for WRVEC. The team quickly restored the power and know the cost associated with the outage.

Measure The Issues In Order To Manage It

"We are used to extreme weather and responding quickly. What we are trying to do is quantify everything we do so we can know where to prioritize our resources"

Beau Jackson

How did PwrMetrix help improve WRVEC's data quality?

Having confidence in the quality of the data

"Most companies have tons of data that they are not using. What PwrMetrix showed us was that some of our outage data was not clean. We cleaned up old data. By fixing the data, our predictive analytics were more accurate and allows us to be more proactive." "This is about using the tools to make better decisions and serve our members in a more cost-effective way, " Mr. Jackson declared.

What proactive steps is WRVEC taking to stop outages?

Beau Jackson detailed how engineering is using lightning strike data to identify damaged lightning arrestors in areas where outages happened that had no probable cause.

Mr. Jackson further described their steps, "once we get the fault current and lightening strike data, then we can locate faults caused by lightning arrestors with more precision. We can also use lightning strike data to inspect and locate damaged arrestors after a storm before they eventually fail and cause an outage. This is one of our proactive and data-driven approaches to improving our system reliability and lowering incremental costs for our membership."

OUTAGES

What were the expectations of running AI predictors?

Mr. Hamon explained "when we ran the outage predictions on the PwrMetrix AI platform and it gave us the probabilities of outages for the next month, we were a little skeptical." Mr. Hamon explained. He continued "until in the first week, after **all top 5 predicted feeders went out. Literally it picked all five!"**

What were the outcomes of having AI for your team?

WRVEC also uses the AI report to minimize outage lengths and proactively stop future outages. By doing this, they are keeping their staff actively monitoring the assets during operational hours and good weather. This saves significant costs and reduces the risk of deploying crews during non-business hours.

"We are using science and artificial intelligence to improve reliability and reduce losses of revenue during outages. Again, working smarter and not harder, and reducing incremental costs while reducing revenue losses" stated Mr. Hamon.

Any electric utility can use PwrMetrix without having to rip and replace existing systems. PwrMetrix doesn't require additional staff. Utilities can see which assets are the most costly. The mapping system allows utilities to visualize, predict and decide their future.

Chris Hamon, CEO

SEE IT IN ACTION

PwrMetrix®

Aerinet Solution's patented PwrMetrix platform integrates existing data to increase reliability and community resiliency. PwrMetrix provides reporting of SAIDI, SAIFI and CAIDI with just a click. The GIS visualizations and AI predictors provide proactive tools for utilities to reduce outages and manage assets.

Saving Thousands with Just a Click

Proactively reducing outages saves thousands of dollars since the utility can manage the maintenance of feeders and meters during work hours.

PwrMetrix, The Platform with a Plan

The real-time patented system shows where future resource allocation will provide the best return on investment. PwrMetrix eliminates the guesswork by qualifying the data and having accurate proven predictors.

Reducing the Need for Additional Staff

PwrMetrix's easy interface means companies don't have to invest in software developers, data scientists or disparate business intelligence systems.

Get Started Today with a demo
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