

► **CASE STUDY**

PROJECT PROSPERITY

BAYFIELD COUNTY AND RED CLIFF BAND OF LAKE SUPERIOR CHIPPEWA



KEEPING THE LIGHTS ON IN RURAL NORTHERN WISCONSIN

When straight-line winds swept through Bayfield County in April 2026, thousands of residents lost power across one of Wisconsin's northernmost remote regions. In some communities, outages lasted more than a day. Roads were blocked by fallen trees, emergency crews faced long travel distances through forested terrain, and local governments were reminded once again how vulnerable rural infrastructure can be during severe weather events.

For communities spread across northern Wisconsin's Lake Superior region, resilience is not hypothetical; it is essential. That reality sparked the development of the Resilience and Prosperity in Rural Northern Wisconsin initiative (nicknamed Project Prosperity), a \$12.2 million regional energy resiliency initiative spanning Bayfield County and the Tribal lands of the Red Cliff Band of Lake Superior Chippewa Indians. This project was funded through the U.S. Department of Energy's Energy Improvements in Rural or Remote Areas (ERA) program, which supports community-driven energy resilience and infrastructure improvements in rural and remote communities. The project aims to deploy nearly 30 clean energy microgrids, solar installations, battery storage systems, and numerous electric vehicle (EV) high-speed charging stations across the county. This project was designed to keep critical infrastructure services operating during emergencies while lowering long-term energy costs and strengthening local resiliency.



Along the shores of Lake Superior

A RURAL CHALLENGE REQUIRES A REGIONAL SOLUTION

Bayfield County is one of the most geographically dispersed counties in Wisconsin, with just 11 people per square mile across large stretches of forest, shoreline, and rural communities. Much of the Bayfield peninsula relies on a single aging transmission line with little redundancy, leaving communities vulnerable to widespread outages caused by heavy snowstorms, freezing rain, and high winds. Multi-day outages have historically impacted emergency communications, including two county's 911 dispatch operations, local healthcare facilities, and critical municipal services.

At the same time, many local governments operate with extremely limited staffing and financial capacity. Some towns serve populations of only a few hundred residents and rely on local elected boards with little administrative support. Community leaders repeatedly emphasized that rural municipalities are already stretched thin trying to maintain roads, emergency response services, fire protection, and snowplowing operations.

Recognizing that no single community could solve these challenges alone, Bayfield County administrators, Tribal leadership, state agencies, nonprofit partners, and technical experts formed a collaborative working group to pursue a regional resilience strategy. This project team focused on building infrastructure that could protect communities during outages while creating long-term economic and environmental benefits.

By combining many smaller community projects into one regional effort, partners were able to create economies of scale that would have been difficult for individual communities to achieve alone. This shared approach helped the region pursue larger federal funding opportunities, coordinate technical expertise, streamline planning and administration, and demonstrate broad community impact.

The work of this regional team did not go unnoticed. When the ERA program released a notice of funding opportunity, the State of Wisconsin provided outreach to the community through the Office of Rural Prosperity to convene the group with other state agencies and nonprofit leaders to explore an application together.

BUILDING RESILIENCE WHERE IT MATTERS MOST

This project brings clean energy, battery storage, and electric vehicle charging infrastructure to 16 rural communities across Bayfield County. Through 26 distributed energy and microgrid projects, the initiative includes one Tribal nation, 11 towns, one village, two cities, and one sanitary district.

Project installations include solar and battery-powered community microgrids at town halls, wastewater treatment facilities, health centers, transportation facilities, and Bayfield County facilities, including the Bayfield County Courthouse and Jail. The project also expands EV charging access with 16 Level 2 public charging plugs and six Level 3 fast-charging plugs at local businesses, including Hunters General Store, Johnson's Store, and Washburn IGA. Fleet charging will also be added for county and Tribal operations, including 18 Level 2 plugs at seven county-owned facilities and two at Red Cliff.



Walking tour of Bayfield County courthouse microgrid



Project team members taking a site tour



Red Cliff Community Health Center future microgrid site location

At the Red Cliff Community Health Clinic, the planned microgrid will help ensure uninterrupted operation of medical equipment and refrigeration for medications such as insulin during prolonged outages. A second Tribal microgrid at the Red Cliff Transportation Facility will support transportation services serving more than 15,000 riders annually while also helping maintain local road maintenance operations during severe weather emergencies.

Bayfield County Administrator Mark Abeles-Allison described the importance of these investments simply: “We’re making investments today that are going to pay off over the next 30 years... we’ll have power backup when and if there’s an outage—and that’s resilience.”

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— *Mark Abeles-Allison, Administrator, Bayfield County*

The project also builds on years of local clean energy work already underway in the region. Organizations like Cheq Bay Renewables helped lead earlier solar and community energy projects across Bayfield and Ashland counties, including installations at schools, wastewater treatment facilities, county garages, and the county jail. Those earlier projects helped establish local expertise and community trust that ultimately supported the development of Project Prosperity.

STATE SUPPORT HELPING RURAL COMMUNITIES COMPETE

One of the most important components of Project Prosperity has been the role of state-level partnership and coordination. The Wisconsin Office of Sustainability and Clean Energy serves as the lead grant applicant and administrator for the ERA program, helping absorb the significant administrative and compliance burden associated with managing a large federal grant.

“It’s too big of a project for these small rural communities to take on by themselves.”

— *Kelly Traczyk, Rural Sustainability Specialist, WEDC Office of Rural Prosperity*

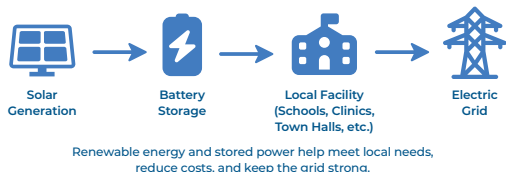
For small rural communities with limited staffing, this support was critical. As Kelly Traczyk, rural sustainability specialist with the Wisconsin Economic Development Corporation’s Office of Rural Prosperity, explained: “It’s too big of a project for these small rural communities to take on by themselves.”

The regional collaboration allowed communities to pursue a scale of investment that would not have been possible individually. In total, the project includes approximately \$9.6 million in federal funding combined with local and regional cost-share contributions supporting infrastructure across municipal and Tribal facilities throughout Northern Wisconsin.

HOW MICROGRIDS WORK IN BAYFIELD COUNTY

Resilient power for the places our communities count on the most

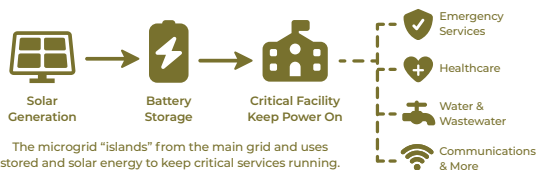
1. CONNECTED TO THE GRID (NORMAL CONDITIONS)



2. GRID DISRUPTION (OUTAGE OCCURS)



3. ISLANDED MODE (MICROGRID OPERATES INDEPENDENTLY)



STRONGER COMMUNITIES, BRIGHTER FUTURE



ENERGY RESILIENCE
Critical facilities stay powered during outages.



COST SAVINGS
Lower energy costs and long-term savings



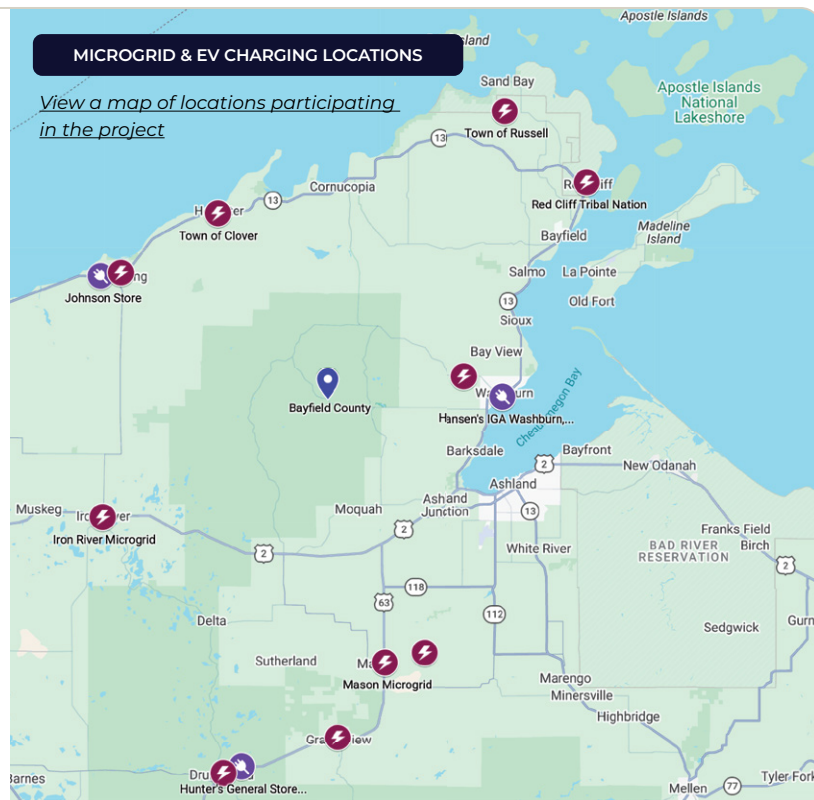
CLEAN ENERGY
More renewable energy for a healthier future



LOCAL BENEFITS
Creates local jobs and strengthens our economy



EV READY
High-speed charging supports electric vehicles and fleets.



LESSONS FOR OTHER RURAL COMMUNITIES

Project Prosperity demonstrates that rural communities can successfully pursue innovative infrastructure projects when partnerships are locally driven and supported through regional collaboration. The initiative also reinforces several important lessons for other communities facing similar challenges:

- 1. State-level partnerships can help rural communities overcome federal grant administration barriers.**
- 2. Regional collaboration creates economies of scale that make complex infrastructure projects more achievable.**
- 3. Developing resilient critical infrastructure helps communities maintain public safety, healthcare access, and essential local government services during emergencies and natural disasters.**
- 4. Previous planning efforts and even unsuccessful grant applications can create the foundation for future success.**

This project reflects the determination and adaptability that defines many rural Wisconsin communities. By combining local leadership, Tribal partnership, technical expertise, and long-term planning, communities across Northern Wisconsin are building infrastructure designed not only to withstand future disruptions but to strengthen the region for decades to come.