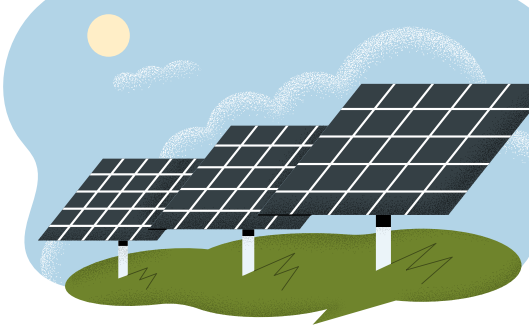

FORWARD TOGETHER WISCONSIN

Stories from Wisconsin communities that demonstrate the success of clean energy investments

Lawton Memorial Library in La Farge

The Lawton Memorial Library in La Farge Wisconsin installed a solar+battery storage system in response to a massive, 13-inch storm that flooded the community in 2018. With the area highway flooded and the only gas station in town underway, the community was cut off. It was without power and without a way to fuel backup generators.

Residents learned from this experience and cooperated to rebuild with greater resilience. They sought to equip the library with both solar power and energy storage so that it could operate as a resilience hub if a future situation arose. They learned that funding was available to install solar but at this point, the IRA Direct Pay (or Elective Pay) provision did not yet exist. Thus, a non-taxed entity such as a library could not access the credits otherwise available to for-profit entities. Four residents decided that the solar project was too important to let this stop them. They formed an LLC to work around this limitation. Sharing insight from the success of the Bad River Nation with their city council about the importance of solar plus battery storage to make the community more resilient, they gained support for this project. A number of other community partners helped to fund the project, including the Couillard Solar Foundation.

Photo courtesy of Lawton Memorial Library

This project also built on the momentum of a planned addition to the library. It was previously a small space that only had enough space for books. The Friends of the Lawton Library built the physical space to literally house the solar panels on the expanded roof and helped to build the community that bought into the idea of the solar system. Once the solar panels were installed, getting buy-in from the community for the added battery storage was made easier.

Why Direct Pay Matters

In many ways, the resulting project revealed the opportunity and need for Direct Pay. Direct Pay makes public libraries eligible for specific renewable energy tax credits such as the Investment Tax Credit (ITC). However, La Farge was ahead of its time. Direct Pay did not yet exist.

Lessons learned from this project have inspired other libraries in the region to install solar. The Lawton Library is a part of a regional, federated library system called the Winding Rivers Library System. Additional libraries in this system have since installed solar and more are planned for the future.

At a Glance: Library Resilience Hub

Year Commissioned: April 2019

Solar: 11-kilowatt rooftop solar array

Storage: 27-kilowatt lithium-ion battery

Funding Source: grants, donations, Investment Tax Credit

Project Partners: Ethos Green Power, Current Electric

As a community safe haven, solar+storage provides backup power for residents to use the internet, charge phones and power electricity dependent medical equipment.

Sugar Creek Lutheran

On Sunday, July 7, 2024 Sugar Creek Lutheran Church held a ceremony to celebrate the groundbreaking for their 19.5 kilowatt solar array. As part of their 175th anniversary as a congregation, Sugar Creek Lutheran is not only remembering the past but looking to the future.

Sugar Creek Lutheran is committed to serving the community and with this solar array, they are also witnessing to the Biblical call to care for God's good creation. The 19.5 kwh solar array will offset carbon emissions equivalent to approximately the work of 800 trees per year or over 300 metric tons of carbon emissions over the 30-year life span of the system.

This project was made possible by generous donations from the congregation, a $25,000 grant from Hammond Climate Solutions Foundation Solar Moonshot Program, a grant for 50% of the solar panels from the Couillard Solar Foundation Solar for Good grant administered by Renew Wisconsin, and Direct Pay rebates under the federal Inflation Reduction Act. The solar system, installed by Adams Solar, consists of 36 solar panels and is anticipated to offset nearly 100% of the church's annual electrical needs.

Why Solar Was the Right Choice

For nearly a decade the congregation has made a considerable effort to reduce its energy consumption through various energy efficiency upgrades. LED lighting in the sanctuary, upgraded florescent lighting throughout the building, insulation of the office and fellowship hall areas and new energy efficient windows in the fellowship hall and main sanctuary have all been completed. With these efficiencies completed the next logical step was to explore the possibility of meeting their energy needs through alternative means.

Sugar Creek Lutheran chose to pay forward to the next generation and supply now the current and future electrical needs and costs of the congregation. New cost reduction opportunities like the Inflation Reduction Act-which paid 30 percent of the solar panel system-made the research into obtaining a solar energy system more cost beneficial.

To learn more about solar energy and to find more resources for your congregation or ministry, visit the South-Central Synod of Wisconsin's website at **scsw-elca.org/creation/**

At a Glance: Sugar Creek Lutheran

Year Commissioned: 2024

Solar: 19.5-kilowatt solar array

Funding Source: donations, grants, Direct Pay tax credits

Project Partners: Adams Solar, Climate Solutions Foundation, Couillard Solar Foundation, Renew Wisconsin

The Bad River Band Microgrid

In July of 2016, historic floods inundated the lands of the Bad River Band of Lake Superior Chippewa in Wisconsin and left the tribe without power and without critical services. Utility outages eliminated critical infrastructure from being used and roadways were flooded over cutting communities off from each other.

In response the Tribe revisited emergency planning and development, and in May of 2021, the Band flipped the switch on a 500-kilowatt solar array paired with more than 1,000 kilowatt-hours of battery storage. The Ishkonige Nawadide Solar Microgrid Project ("It catches fire" in the Ojibwe Anishinaabemowin language) starts their journey toward resilience and energy sovereignty.

The microgrid was designed to withstand disasters worse than the floods in 2016, and it provides critical power to the wastewater treatment plant, the Health and Wellness Center, and an Administration Building. The Ishkonige Nawadide Project is Phase I of the Band's path to complete resilience and energy sovereignty.

The Waste Water Treatment Plant with the array in the foreground.

The roof mounted array on the Bad River Administration building.

Photos courtesy of Bad River Tribe

Tribal Energy Sovereignty and Resilience

These microgrids are being used primarily for resiliency and as examples that solar works and can provide clean back-up power when needed.

The Department of Energy's Office of Indian Energy has invested over $120 million in more than 210 tribal energy projects like this one since 2010.

Tribal communities are making informed decisions about their own energy needs so they can lower energy costs, increase energy security and resilience, strengthen local economies, and continue to fight back against the climate crisis.

"We're more than positive that when an outage does happen, these [community] buildings will be able to be supported. We built solar panels at a level that could withstand another 500-year flood. They are built for the worst event that could happen," said Daniel Wiggins, Jr., Tribal member and project lead for the Ishkonige Nawadide Solar Microgrid Project.

At a Glance: Bad River Microgrid

Year Commissioned: 2021

Solar: more than 500-kilowatts

Storage: over 1000 kWh of battery storage at three critical facilities

Funding Source: donations, grants, Direct Pay tax credits

Project Partners: U.S. Department of Energy