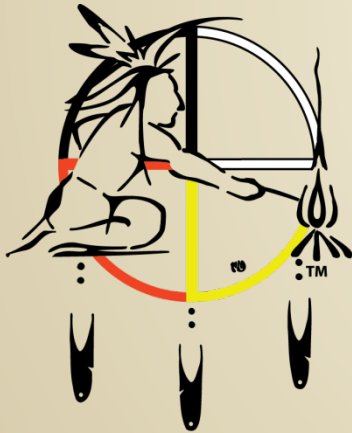


Forest County Potawatomi Community Community-Scale Solar Project

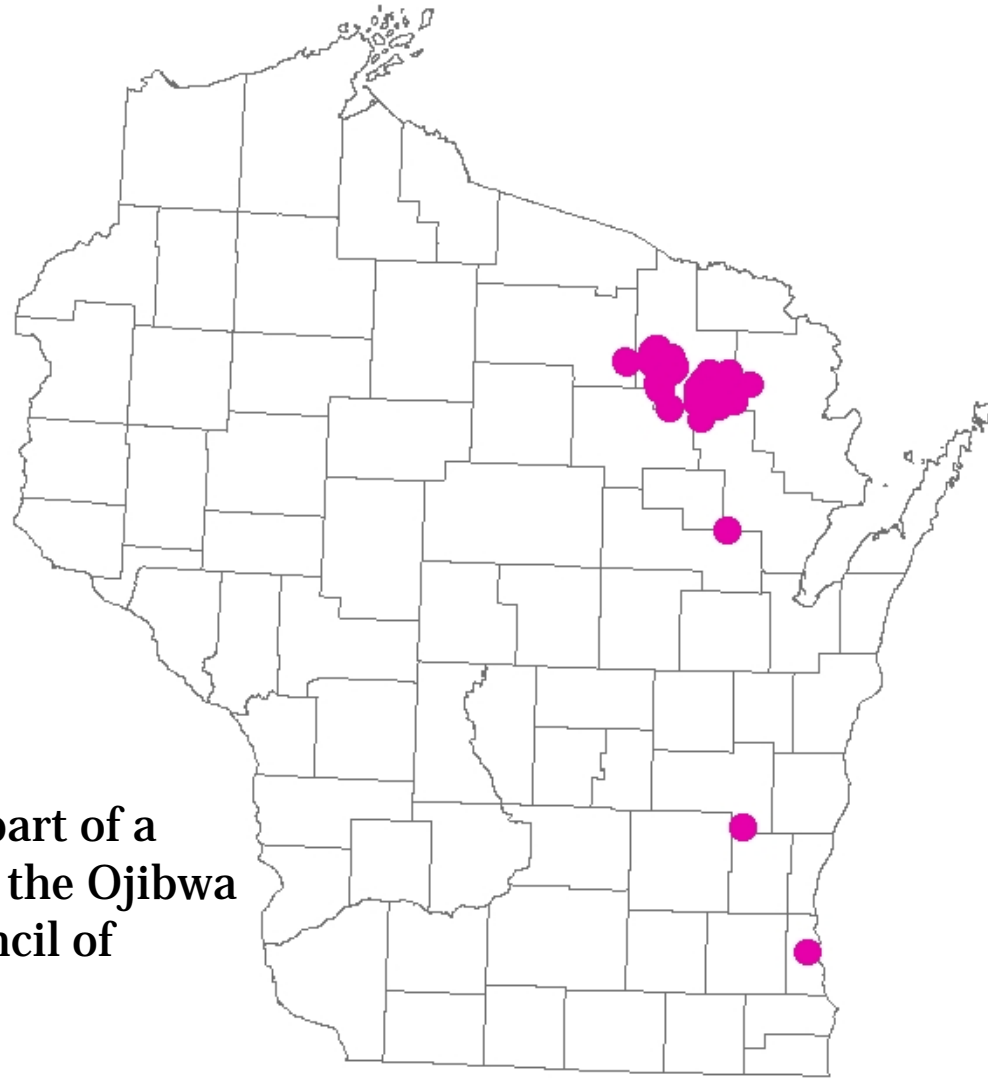


Sara M. Drescher
FCPC Attorney

The People

- Potawatomi are part of a confederacy with the Ojibwa (Chippewa) and Odawa (Ottawa), other Algonquins, called the Council of the Three Fires.
- Potawatomi were designated the “Keeper of the Fire”.
- From 1789 to 1867, through a series of treaties entered into under duress, ceded all lands east of the Mississippi.

Forest County Potawatomi Community Land Base 2015



Potawatomi are part of a confederacy with the Ojibwa and Odawa, Council of Three Fires.

The Tradition

- Tradition and history teach a strong commitment to protecting and preserving the natural environment.
- Environmental Mission Statement:

The traditional values of the Forest County Potawatomi Community teach us to respect all living things, to take only what we need from Mother Earth, and to preserve the air, water, and soil for our children. Reflecting these values, we take leadership in creating a sustainable and healthy world. We resolve to reduce our own environmental impacts and to take steps to remedy the impacts of others. We encourage others to do the same. We also seek legislative and policy changes that protect the environment for all people, including generations to come.

Community Scale Solar Photovoltaic Systems

- FCPC received a DOE Community-Scale Clean Energy Projects in Indian Country Grant for the Installation of Solar Photovoltaic Systems in November, 2013.
- The \$1.4 million grant provided half of the total project cost.
- The remaining project costs were funded in part through a partnership with a solar company. The company invested 30% of the remaining costs as a match for the Company's investment tax credit. The solar company also receives the benefit of annual tax depreciation of the system.
- The Tribe's portion is 20% payable through a Power Purchase Agreement.

Project Overview

- **The Tribe installed approximately 922.95 kW of solar PV systems at fifteen tribal facilities in Milwaukee and Forest counties, Wisconsin.**
- **The individual installations ranged from 9.0 kW to 447.64 kW and will displace between 16.9% to in some cases in excess of 90% of each building's energy needs.**
- **The project focused on both government facilities and enterprises and utilized roof and ground mounts depending on site specific needs.**

Project Locations

The Phase I sites included:

- Potawatomi Bingo Casino, Milwaukee, WI (447.64kW);
- Natural Resources Building, Crandon, WI (22kW);
- Utilities Maintenance Building, Crandon, WI (23 kW);
- Recreation Building, Crandon, WI (62.25 kW);
- Solid Waste Building, Crandon, WI (19.5 kW);
- Assisted Care Building, Crandon, WI (86 kW); and,
- Emergency Management, Crandon, WI (23.56 kW).

Project Locations (Cont.)

The Phase II sites included:

- Rising Sun Daycare, Crandon, WI (24.8 kW);
- Gte-Ga-Nes Pre School, Crandon, WI (24.8 kW);
- Air Monitoring Station, Crandon, WI (12.5 kW);
- AODA, Crandon, WI (12.4 kW);
- Museum, Crandon, WI (49.6 kW);
- Ordinance, Crandon, WI (9kW);
- Stone Lake C-Store, Crandon, WI (80.6 kW); and,
- Property Management, Crandon, WI (24 kW).

Project Participants

- Pewaukee, Wisconsin based SunVest Solar Inc. (SunVest), installed solar PV systems at fifteen tribal facilities in Milwaukee and Forest counties.
- The Tribe contracted with SunVest to provide technical assistance and oversight for the installations.
- SunVest was responsible for project design, engineering, analysis, and for providing the necessary PV components.
- An internal advisory group was created to oversee the project for the Tribe and to provide Executive Council with the project options and outcomes.
- In addition, FCPC worked with other outside parties and vendors including Wisconsin Public Services, WE Energies, installers, and inspectors.
- FCPC remained fully involved throughout the project and provided oversight of each installation at the sites and the project objectives as a whole.

Potawatomi Bingo Casino Event Center and Woodland Dreams Roof



Community Scale Clean Energy Project (2015)



Project Objectives

- Install approximately 875 kW of solar generation capacity at Tribally-owned buildings in Milwaukee and Forest Counties.
- Increase the Tribe's renewable generation capacity with equipment that has low operations and maintenance requirements and costs.
- Provide a good match between the renewable solar resource and the time of use of tribal facilities.
- Be economically feasible by allowing for a payback of capital costs based on energy savings achieved over time.

Lessons Learned

- **Communication with Tribal Members and Encouraging Stakeholder Participation.**
 - Although a Working Group was in constant communication with the Tribe's Executive Council, it could have done a better job of disseminating information to individual tribal members.
 - Although tribal members were aware of the project and the potential benefits of the project, the group could have provided greater understanding of how those benefits would improve the situation of the Tribe vis-à-vis the environment and its own economic agenda.
 - Better communication with tribal members for support of the project earlier in the process.

Lessons Learned (Cont.)

- **Effective Information and Analysis of Options.**
 - One of the most important components of the project was to utilize funds for installations that would provide a substantial net benefit to the Tribe.
 - Benefits in the form of environmental attributes, energy cost savings and offset of traditional energy were important to the Tribe.
 - This approach required analysis of several layers of information including the net metering at each location, the cost of kWh, energy usage and related factors.
 - It was important for the Tribe to have access to current and historic information as well as being able to appropriately analyze it.

Lessons Learned (Cont.)

- **Reevaluating Goals and Working Effectively within Grant Parameters.**
 - As the project developed FCPC had a better understanding of how to create efficiencies and receive the most benefit out of each individual installation.
 - The end results of the project included facilities not previously considered and the most beneficial uses of the grant funds.
 - It was important for FCPC to be able to separate the projects into two phases and create a scope that provided the most benefit.

Lessons Learned (Cont.)

- **Building Capacity.**
 - The process FCPC undertook to analyze sites, consider the benefits of potential solar PV installations, and understand the needs for the Tribe as a whole and individual tribally owned sites has helped FCPC better realize the parameters for renewable energy installations as a whole.
 - By analyzing sites on a site by site basis and considering the energy needs the Tribe will be able to better consider future projects of varying technologies.
 - The grant period helped the Tribe better understand renewable energy alternatives and decision making protocols for future projects.

Future Projects

- **Small Scale Biomass Deployment**
 - Investigating, with assistance from NREL and Office of Indian Energy, potential small scale biomass project(s) on the reservation.
- **Solar**
- **TEDC Grant to Study Feasibility of Creating Tribally Owned Electric Utility.**