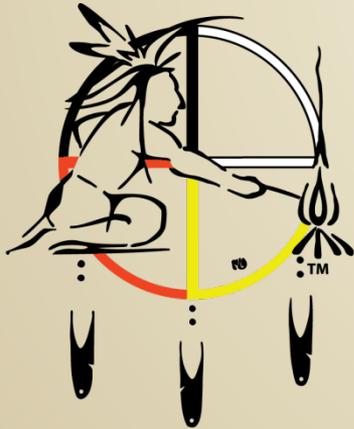


# Energy Development in Indian Country



**Sara M. Drescher**  
**FCPC Environmental &**  
**Energy Attorney**

*“Let us share our natural resources for the good of our People. Let us work for clean air and water and pray for the courage to stand up to those who would abuse our Mother Earth. So be it.”*

- Bemwetek (Elder James Thunder)

Excerpt from 2007 Class I Air Redesignation Public Hearing Prayer

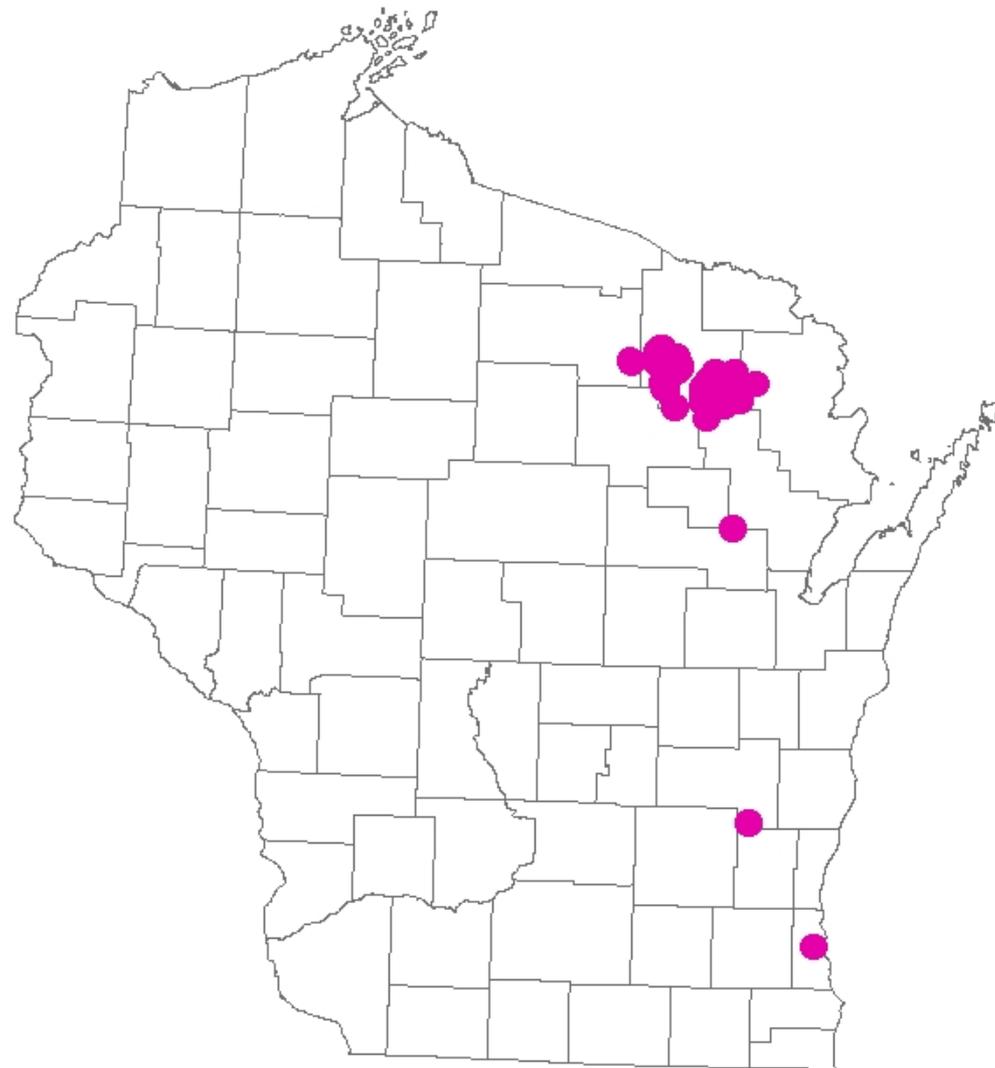
# The People

- 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.

# The Land

- Many Potawatomi refused to move West or quickly returned to the Great Lakes Region, including to the Forest County, Wisconsin area.
- 1913 Act of Congress provided funds to Potawatomi who relocated, and money was used to purchase trust lands (11,786 acres) in Forest County.

# Forest County Potawatomi Community Land Base 2015



# The Tradition

- Tradition and history teach a strong commitment to protecting and preserving the natural environment.
- Elders communicating that things are out of balance.

# **Stand Up to Those Who Would Abuse Mother Earth**

- Crandon Mine Opposition (1970s-2003)
- Class I Air Redesignation (1993-2008)
  - Final Standards agreed to with the State 2015
- TAS for CWA

# The Work for Clean Air and Water

- Project Greenfire (2007)
- Participation in (former) Governor Doyle's CCTF (2007-2008)
- Adopted "Environmental Mission Statement" (2008)
- A Comprehensive Energy Audit(2008)
- Renewable Energy Credits (RECs) are purchased annually – 55,000 per year in addition to those FCPC creates
- Four day work week was also established
- #10 On the EPA Top 20 Local Government List
- Member of the Green Power Partnership



# Project Greenfire (2007)

- Established goal of energy independence using only renewable carbon-neutral or carbon-free resources.
- Adopted “Environmental Mission Statement” to help implement and institutionalize goal (2008).
- Comprehensive Energy Audit
  - Established baseline of energy consumption / carbon footprint;
  - Identified “List of 100” facilities improvements;
  - Efficiencies have eliminated over 13,700 tons of CO<sub>2</sub>;
  - Further reductions with ongoing projects.
- RECs purchased to completely offset electricity use and serve as bridge to energy independence.
- Resource assessments for potential projects.

# FCPC Energy Efforts

- Created by Executive Council Motion on January 3, 2013 to forward FCPC's Energy Goals;
- Performs Preliminary Due Diligence for New Energy Projects;
- Reviews New Funding & Grant Opportunities;
- Maintains a Database Tracking Energy Use; and
- Founding Member of the Midwest Tribal Energy Resources Association (MTERA).

# FCPC Energy Efforts

- TEDC Tribal Utility Formation Study
  - Completion September 2017
- Carter Microgrid/Biomass Feasibility Study
  - Completion September 2017
- Wgema Campus Urban Biomass Feasibility Study
  - Commencing 2018
- LEED Directive
- Solar and green energy consideration for new construction

# Green Energy Production

- DOE Community Renewable Energy Deployment Grant (2010)
- Milwaukee Administrative Building Solar (completed 2011)
- Milwaukee Biodigester and Biogas Facility (completed 2014) 2MW

# Green Energy Production

- Community - Scale Solar Project  
(completed 2015) 1MW
- Deployment of Green Energy Department  
of Energy Grant
  - Work commences in the coming months

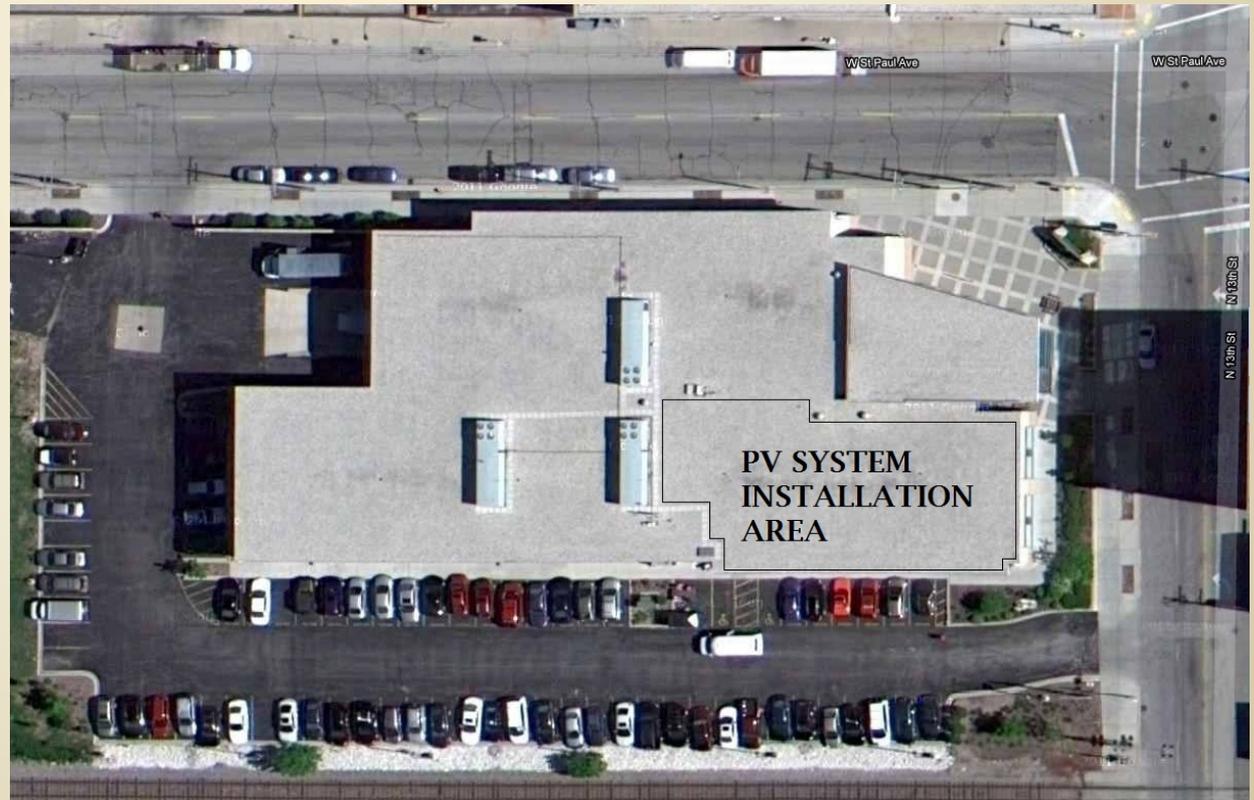
# Milwaukee Administration Building Solar Photovoltaic Installation

- In October 2011, Tribe completed installation and commissioning of 35 kW array of solar photovoltaic panels on the roof of its Milwaukee Administration Building.
- Reduces CO<sub>2</sub> By 41 tons annually.

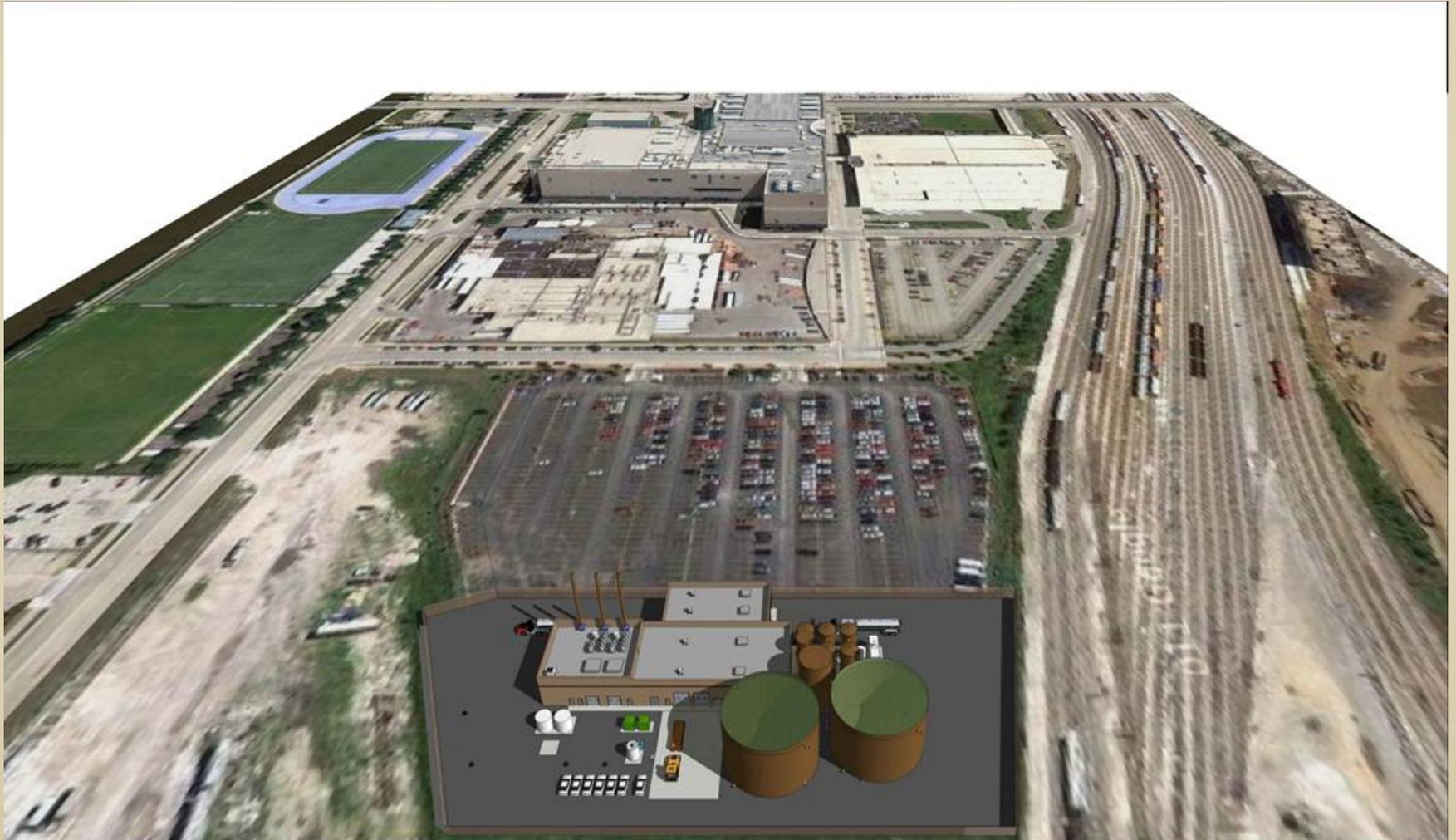


# Milwaukee Administration Building Solar Photovoltaic Installation

Tribe partnered with DOE (under the Community Renewable Energy Grant), WE Energies (the local utility) and Wisconsin Focus on Energy to implement the project.



# Milwaukee Biodigester and Biogas Facility 2014



# Overview of Facility

- 2.0 megawatt anaerobic biodigester and biogas facility located near Potawatomi Bingo Casino in Milwaukee, WI.
- Operates on liquid (pumpable) food wastes.
- Generates revenue from a combination of tipping fees and electricity sold through a WE Energies Renewable Energy Tariff (local utility).



# Funding

- Section 1603 Grant
- DOE CRED Funding
- Focus on Energy Grant
- Self Funding - Reinvestment

# Community Scale Clean Energy Project (2015)



# 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.

# Specific Outcomes

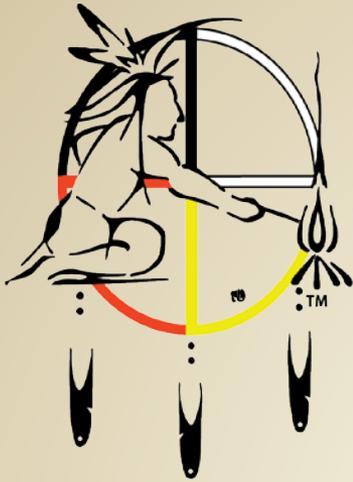
- Install solar PV at 15 Tribally owned buildings. The buildings were chosen based on the match between the time of use of the buildings and solar production hours to maximize offsets.
- Solar production will result in offsets between 20% and more than 97% at individual locations with a projected annual savings of \$102,351.
- The project will result in a total of 922.95 kW of installed solar. As the project developed the parties were able to find ways to increase efficiencies. The project as originally designed was for the installation of 737 kW at an average price of \$3,790/kW. As installed the average price will total \$3,034/kW.
- Solar designs were able to accommodate both Tribal business interests and cultural and historical concerns. By working closely with Tribal members installations were sited based on specific locational needs.
- The total savings of the project since March 2017 is \$158,966.19 with 1,617,555.43 kWh of energy produced to date.

# Other Projects

- Small Scale Biomass Deployment
  - Investigating, with assistance from NREL and Office of Indian Energy, potential small scale biomass project(s) on the reservation.
- Compressed Gas
- Geothermal
- Housing Projects
  - DOE Housing Efficiency Project

# Important Considerations

- Tribal Member Goals
- Structural Integrity
- Green Energy Sources
- Timing
- Partners
- Energy is Not One Size Fits All



# Thank you!

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