



Sac and Fox Tribe of the Mississippi in Iowa
Meskwaki Solar Energy Project

November 19th 2024

Meskwaki Solar PV Team



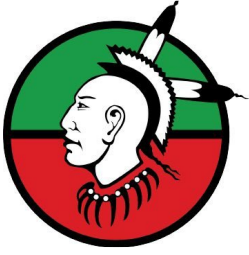
Matt Bear
Program Director
Meskwaki Nation Apprenticeship



Robert Jones
Electrical Instructor
Meskwaki Nation Apprenticeship



Daniel Gero
Principal Consultant
DG Energy



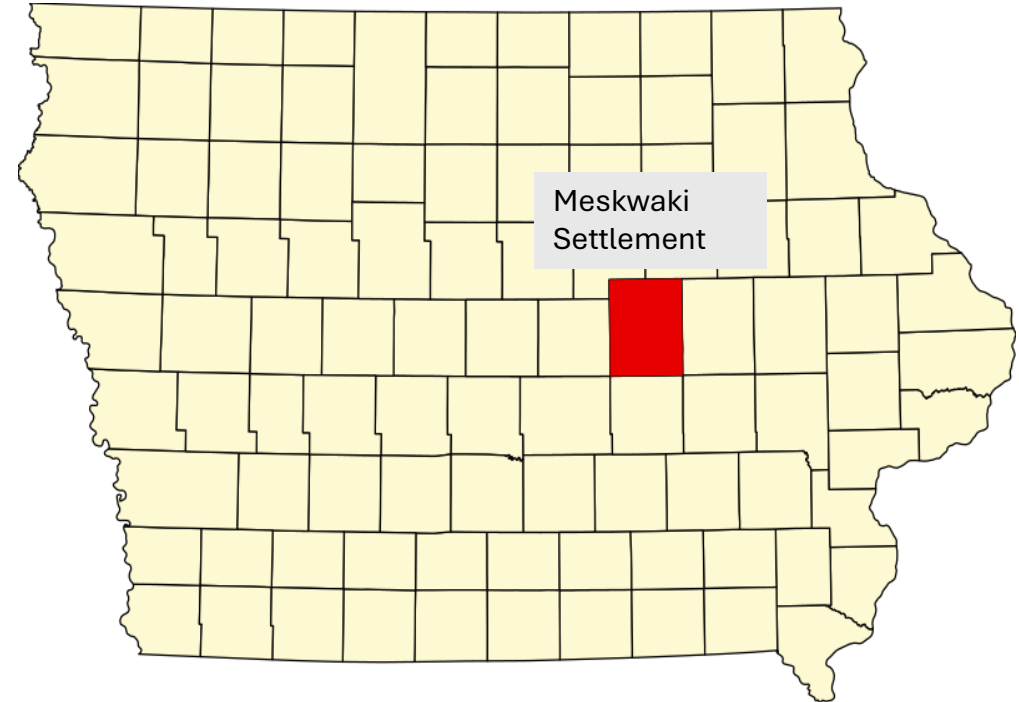
Sac & Fox Tribe of the Mississippi in Iowa

Meskwaki:

The “People of Red Earth” origin from St. Lawrence River Valley in Ontario, Canada.



Purchased 80 acres in 1857



Kindergarten – 12th Grade School 2003



Tribal Government Offices 1970's



Meskwaki Health Clinic 2010

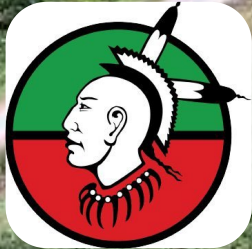


Gaming 1990's

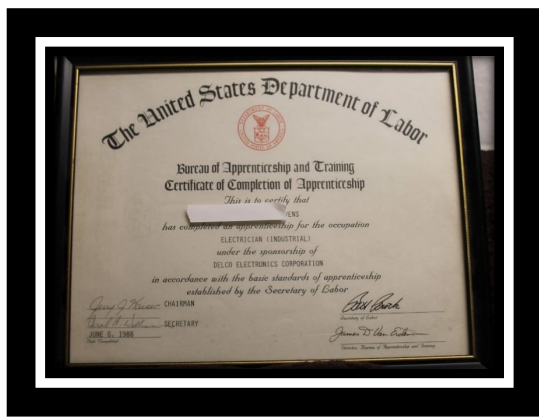


Deerfield
Development

East Village
Development







MESKWAKI MA APPRENTICESHIP

Earn as you Learn





Meskwaki Solar PV Project Background

- Meskwaki desires to harness the Tribe's renewable energy resources to:
 - Reduce environmental footprint
 - Lower energy costs
 - Support tribal workforce development
- Meskwaki partnered with DG Energy to conduct a feasibility study to determine what renewable energy projects the Tribe could pursue
- The Tribe decided to pursue development of facility scale solar PV systems due to restrictive utility policies impacting large RE systems



Meskwaki Solar Project Details

- This DOE project will fund the development of two solar PV systems serving the Tribe's facilities:
 - 90 kW dc array on Tribal Center Rooftop
 - 45 kW dc ground mounted array serving the Apprenticeship Program
- This project will also allow the Meskwaki Apprenticeship Program to create a solar PV apprenticeship training program
 - Apprenticeship Program will train tribal members while installing solar PV on additional tribal facilities and housing on the Meskwaki settlement
 - Will certify 4 tribal members per year in solar PV installation and O&M

Solar PV Project Locations





Tribal Administration

- 90 kW dc nameplate rating
- Will generate approximately 119,000 kWh per year
- Offset 97% of the facility's usage
- Reduce CO₂ Emissions by 112,700 lbs. per year
- Decrease electric bill by approximately \$7,500 per year



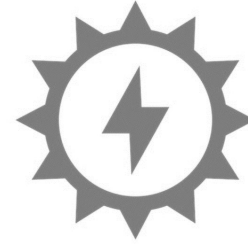
Apprenticeship Program

- 45 kW dc nameplate rating
- Will generate approximately 63,500 kWh per year
- Offset 98% of the facility's usage
- Reduce CO₂ Emissions by 60,000 lbs per year
- Decrease electric bill by approximately \$4,000 per year



Solar Photovoltaic Installer Diploma Program

ON-CAMPUS SOLAR

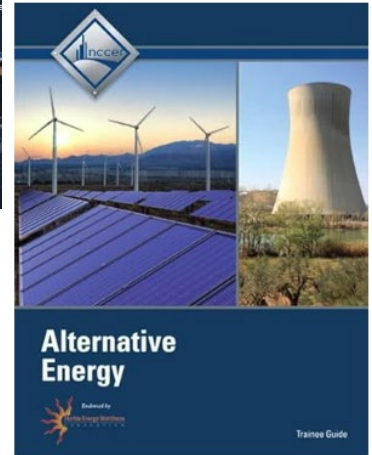


IN-CLASS EDUCATION

Solar Project Experience



Instructors & Students



MESKWAKI SOLAR ENERGY PROJECT

Project Status

We have released an RFP and expect to begin evaluating proposals early next month

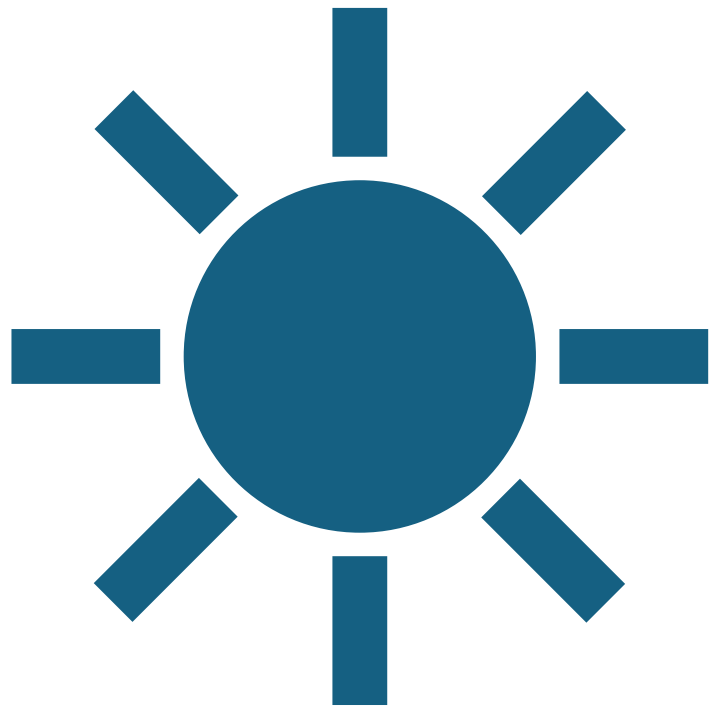
The project team anticipates executing a contract with the selected firm in January 2025



Lessons Learned

Communication across tribal departments is critical

- Project faced delays due to internal communication and coordination issues
- We recommend ensuring leaders of tribal departments are kept informed of the project's status and included in communications to ensure they can provide appropriate support to the project

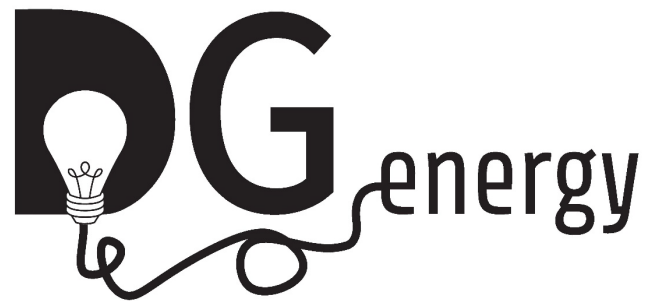


Future Plans

- The Tribe plans to leverage its solar PV apprenticeship training program to install solar PV systems on additional tribal facilities and residences across the settlement which will:
 - Provide employment opportunities for tribal members
 - Train tribal members in high value solar PV skills
 - Reduce electric bills for tribal members and tribal facilities
 - Reduce the Tribe's environmental footprint

Questions?

Daniel Gero
Principal Consultant
daniel.gero@dgtribalenergy.com
(805) 796 - 6286



Matt Bear
Apprenticeship Program Director
ac.exec@meskwaki-nsn.gov
(641) 484 - 9388

