Location

- 122K Acres of plains, hills, and mountains (Bear Paws)
- 6400 members with roughly 3800 living within the reservation boundaries
- Celebrated 100 Year in August 16’
Project Goals

- Introduce Solar PV as a viable means of sustainable energy development on the Rocky Boy Reservation
- Kick-off our commitment to long term strategic energy plan
Chippewa Cree Tribe Deployment of Clean Energy Solar PV Project
CHIPPEWA CREE/GRID ALTERNATIVES

Project Summary
Through the Chippewa Cree Tribe Deployment of Clean Energy Solar PV Project, the Chippewa Cree will partner with non-profit solar installer GRID Alternatives to introduce a scalable model of solar PV to its reservation. The installation of the six solar PV systems on the Rocky Boy’s Indian Reservation, will help fulfill the Chippewa Cree’s strategic goals of long term sustainable development of its energy resources.

Key Personnel/Organizations
- Chippewa Cree Energy Corporation
- Chippewa Cree Housing Authority
- Stone Child College
- GRID Alternatives

Budget and Timeline
Federal funds: $63,435  Cost-share: $ 63,436 Total: $126,871

Key Milestones & Deliverables
Year 1: Install six 3.5 kW solar PV systems on three of the tribe’s recently constructed duplexes.
Year 2: Verify energy output and savings to use as justification for future renewable energy projects.

Project Outcomes
Install six 3.5 kW grid-tied residential solar PV systems—21kW total—on three of the tribe’s recently built duplexes constructed from highly energy efficient SIPs panels. It is estimated the project will produce 26,541 kWh/year or 283,988 kBtus/year and offset 27.3% of the current aggregate electrical usage, from 972,272 kWh/year. 10 Job Trainees will gain up to 80 hours of hands on, real world job experience in the solar PV field.

Introducing Solar PV as a viable means of sustainable energy development on the Rocky Boy Reservation.
Procedures

- Construction was in an area that had pre-existing Environmental Assessments and Cultural clearance
- Work with local utility company to be in compliance with their requirements.
- Ours was a net metering system
- Ran into difficulty with utility in the form of a 3K fee
Description

- Installed six solar PV systems on income qualified residential units
- Houses also chosen based on existing energy efficiency
- Completed in October 16’

## Key Milestones & Deliverables

<table>
<thead>
<tr>
<th>Year 1:</th>
<th>Install six 3.5 kW solar PV systems on three of the tribe’s recently constructed duplexes.</th>
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<tbody>
<tr>
<td>Year 2:</td>
<td>Verify energy output and savings to use as justification for future renewable energy projects.</td>
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</table>
Monitoring Results
PV Watts Results for Box Elder, MT
4.402 kWh/year
October 323 kWh

Enphase Monitoring
Approximately 5kWh/year
October 317 kWh
Key personnel/Organization

- Chippewa Cree Tribe
- Grid Alternatives
- Chippewa Cree Housing Authority
- Stone Child College
22 Tribal Members Trained

Cumulative 459 hours

7 Days of training provided totaling 50 hours
Budget/Costs

- $126,872 total award amount
- 50% matching contribution for total of $63,436
- Shared between Chippewa Cree Tribe and GRID Alternatives in form of equipment, in-kind, and cash contributions
- Tribe is looking at 8yr. ROI with a 25yr life of panels
Project Outcomes

- Reduce utility bills for income qualified residents
- Currently paying around $2K per year with an anticipated $500 yearly savings
- Provided training for local community members
- Stimulated community interest in renewables