

Northern Cheyenne White River Community Solar Project

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On behalf of

Kyle Alderman,

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Northern Cheyenne Tribe



Indigenized Energy (decolonialized energy)

Launched by Cody Two Bears in the wake of the Standing Rock protest against the North Dakota Access Pipeline

Mission: Pursue tribal energy sovereignty through trusting partnerships and innovative programs that grow our collective capacity to unleash the power of renewable energy.

We work side by-side with tribes, ***guided by our shared values***, to help them pursue energy sovereignty based on their unique conditions, and develop their capabilities to plan, develop, and manage resilient and sustainable energy systems.



NORTHERN CHEYENNE

TSITSISTAS AND SOOTEO

THE NORTHERN CHEYENNE TRIBE CONSISTS OF TSITSISTAS AND SO'TEO' PEOPLE. THERE IS OVER 11,000 ENROLLED MEMBERS AND OVER 5,000 RESIDE WITHIN THE RESERVATION'S 5 DISTRICTS. OUR LAND BASE TOTALS 444,000 ACRES WITH 99% OWNED BY THE TRIBE ITSELF OR INDIVIDUAL TRIBAL MEMBERS.

THE NORTHERN CHEYENNE PEOPLE VALUE OUR CONNECTION WITH THE CREATOR AND ALL LIFE. THOUGH MANY SUFFER FROM EXTREME LEVELS OF POVERTY, OUR PEOPLE HAVE CONTINUOUSLY REFUSED TO SELL OUR RESOURCES THAT DEFORM AND POISON MOTHER EARTH.

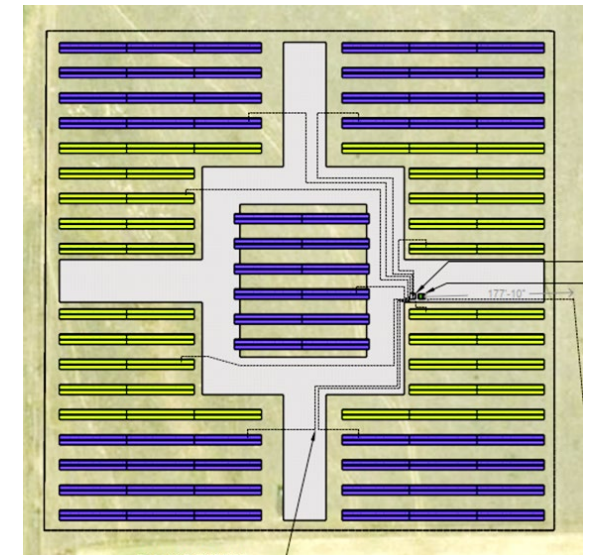
Background - \$4M DOE WRCS



- Initiated by external team and tax-credit investor
- Originally awarded by DOE in 2018 – 2.5 MW utility scale array
- New NCT Renewable Energy Manager assumed leadership
- New plan emerged to include residential projects
- Re-scope based on more realistic goals and capacity building
- COVID – DOE shift to 20% match (Cool - Thank you)
- Cost escalation / lead times . . . (Not cool)
- Decision to pursue a tribal utility
- Moving forward with new approach

Revised project plan

- 15 residential systems – battery ready 10kW ground mount
 - Battery-ready 10kW net-metered
 - All exactly the same ground mount
- 3 medium scale projects at critical facilities
 - School – 100kW
 - Head start – 25kW
 - Pumping station – 25kW
- 1mW utility scale array
 - Substation upgrade
 - Allows for expansion and community microgrid after utility transition
- Integrated training program



Challenges - *Strategies*



- Basin off-take rate 2.44cents / kWh off-take rate
 - ***Shift to behind the meter under 100kW***
- Taking on the burden of project without a developer
 - ***Skill up!***
- Project cost inflation
 - ***De-risk project – weave project together with other funds***
- Selection of first 15 residential project participants
 - ***Developed a process for ranking based on honoring elders, vulnerability, and equity***
- Allowing for future energy storage
 - ***Designing for next steps + adding other funding sources***

Capacity Building Objectives



- Resiliency
- Northern Cheyenne Solar Program Development
- Workforce Development

Capacity Building Objectives



Tiers of Resiliency

- Tier 1: Most vulnerable individuals – protected at home
- Tier 2: Critical facilities – Shelters, infrastructure
- Tier 3: Community scale / power outages - Microgrid

Updated Disaster Mitigation Plan

Integration of funding FEMA and Bipartisan Infrastructure Legislation (BIL) funding

Capacity Building Objectives



Launch of Northern Cheyenne Solar Program

- Deploy solar with grant funding / tribal funds
- Capture shared savings / IRA reimbursements
- Manage Operations and Maintenance
- Re-invest revenue into further renewable deployment and grid upgrades



Capacity Building Objectives



Integration of workforce development

- Design training programs for local community (Chief Dull Knife College)
- Align training with projects
- Utilize first set of residential projects as workshops
- Pause for additional training
- Form crews to build project the rest of the project
- Plan future projects to sustain jobs



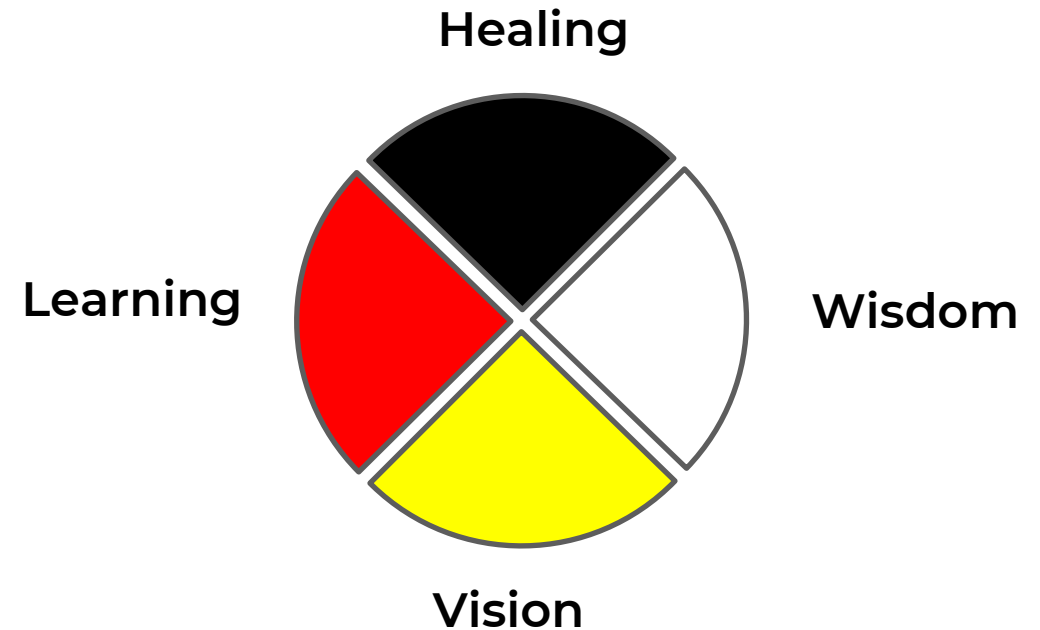
Acknowledgments



- Tweedy Doe and Kris Venema at DOE Office of Indian Energy
- Department of Energy and Mineral Development
- Red Cloud Renewables
- Chief Dull Knife College
- Indigenous Energy Initiative
- NDN Collective \$200K matching fund
- Grid Alternative Tribal Solar Accelerator Fund \$125K matching fund

Tribal Energy Transformation Playbook

- Funded by Energy Foundation and IEI
- Resource ***assembled by tribes, for tribes*** and teams to develop long term energy transformation plans
- Collection of strategies ***based on experience of tribes***
 - Renewable energy deployment
 - Microgrids
 - Utility formation
 - Capacity building
 - Economic Development
 - Resiliency



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