

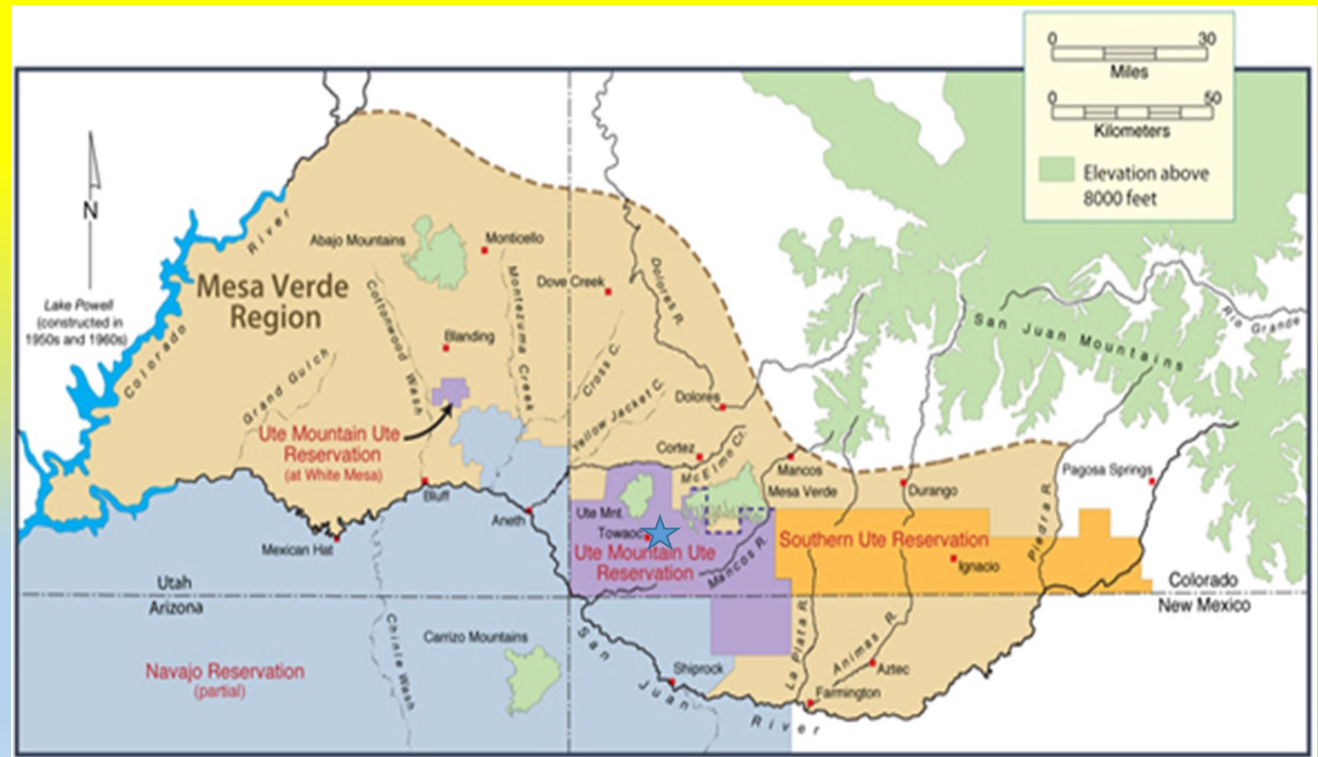
**Energy Sovereignty
Opportunities and Challenges**

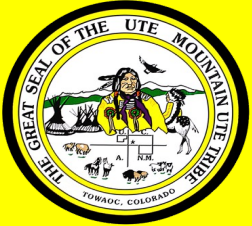
**Scott Clow
Environmental Programs Director
Renewable Energy Team Chair**

**Ute Mountain Ute Tribe
Colorado, New Mexico, Utah**

Ute Mountain Ute Tribe Overview

- The Utes were Hunters & Gatherers
- The Utes, originally were seven (7) Bands situated in Colorado & Utah
- The Weeminuche Band is now known as the Ute Mountain Ute Tribe
- 2,500 Tribal Members
- Colorado & Utah Residence
- 55 Years of Age Life Expectancy
- 26 Years Median Age
- 37.8% Poverty vs. 12.5% in Colorado
- \$13K Per Capita vs. \$42K in Colorado
- 582,321 acres Total Trust & Tribal Fee Lands (541,209 Trust Land & Tribal Fee Lands 41,112)





Commercial Opportunity – Now is the Time!

SJGS: 1848 MW
4CPP: 2040 MW
4CPP: currently 770
MW
Past Total Capacity:
3888 MW



Ground Breaking

(Ceremony for 1 MW Community Solar)




Since then:

- 2 additional DOE-cost shares for community solar focused on housing sector
- 2 Commercial solar projects moving forward with lease agreements
- 600 MW energy storage project in FERC licensing process
- 1.5-2MW commercial small hydroelectric project (early phases of planning)

Community Scale Interconnection Decisions



- Community Scale Interconnection Scenarios
 - Tri-State Power Supplier, NTE 1MW & Policy 115
 - WAPA involved as EEA system user/federal decision - maker

 **TRI-STATE**
Generation and Transmission Association, Inc. **Board of Directors Policy**

Subject: MEMBER SYSTEM DISTRIBUTED GENERATION POLICY			Policy No: 115
Original Issue: 1-9-02	Last Revised: 5-3-17	Last Reviewed: 5-3-17	Page 1 of 10

OBJECTIVE

The Wholesale Electric Service Contract between Tri-State and the Member Systems allows each Member System the option of using generation resources they own or control to serve up to five percent (5%) of the Member System's total load. This policy describes how this option will be implemented. The five percent (5%) represents a right, not an obligation of the Member System.

It is intended that the implementation of the 5% option should minimize subsidization between Member Systems that choose to implement this option and Member Systems that do not.

 **Empire Electric Association, Inc.**
801 N. Broadway P.O. Box K Cortez, CO 81321-0076 Phone (970) 565-4444
www.eea.coop

Distributed Energy Resource Interconnection Agreement

This Agreement is made and entered into this _____ day of _____, 20____ by and between EMPIRE ELECTRIC ASSOCIATION, INC., 801 North Broadway, Cortez, Colorado ("Empire") and _____ ("Customer") whose address is _____ ("Customer's Address"). Empire and the Customer may be referred to herein individually as a "party" or collectively as the "parties."

- 1) **Purpose.** This Agreement is required for Customer to interconnect a customer-generator ("Generator") to Empire's electrical grid. If the Generator is to be net metered behind an existing load, this agreement also allows Customer to receive service under Empire's Net Metering Rate Schedule.
- 2) **Term.** This Agreement shall remain in effect as long as the Customer's Generator is interconnected to Empire's electrical grid. The Customer's Generator shall be considered a fixture and shall be attached to the land located at the Customer's Address.

Workforce Development



- 1 MW project
- 21 applied
- Higher Ed SEEDS Grant
- Temp Worker Program
- 11 employed
- 6 Interns saw it all the way through
- Other Co.'s Interested
- 2nd Community Scale project similar workforce development



Future Phases of Towaoc Community Solar



- Additional kW – MW at current site
- Brownfields to Greenfields
- Additional Facility Scale Offsets
- 2024: Commercial partners working to assist overcoming local constraints

White Mesa Community Solar

- SIS constraint +\$360k
- Go big ?
- Go off grid?



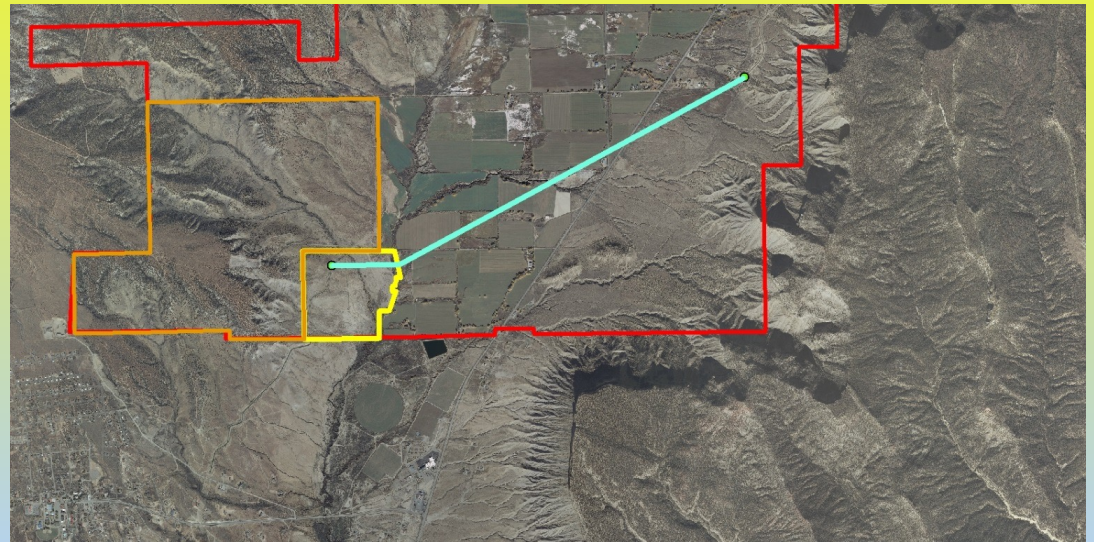
Agricultural Water and Hydroelectric Potential

Local and Commercial Opportunities

- Micro-Hydroelectric Project
 - 5-10 micro-hydro generators at 7000 acre farm (2 installed)
- Small Hydroelectric
 - 1.5-2.0 MW during irrigation season
 - >7000 MW-hours annually



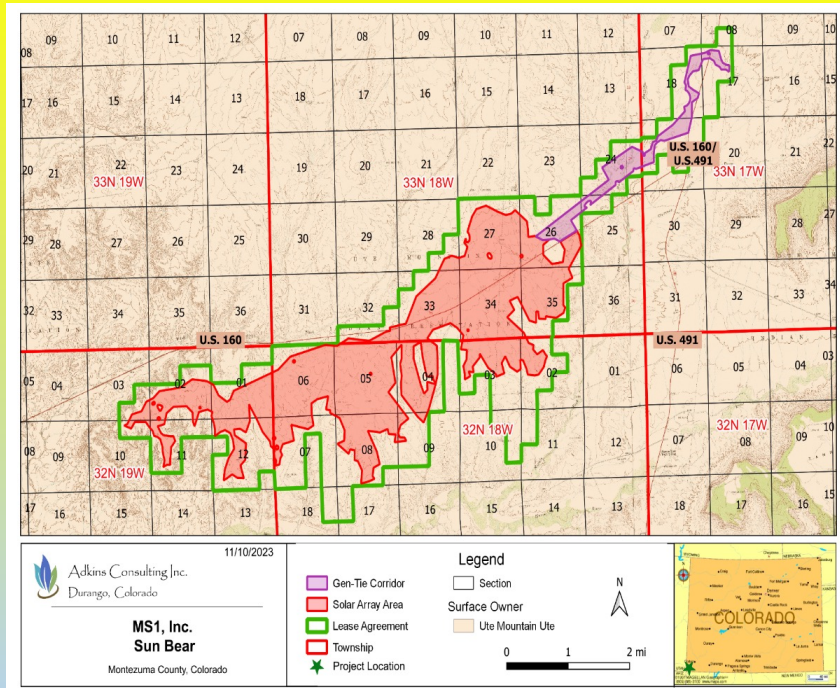
Towaoc Highline Canal
Courtesy Steve Albert



Large Scale Commercial Renewable Energy



- Commercial Solar
- Energy Storage



Ongoing Challenges

- Developing Internal Technical Capacity
- Community Scale:
 - Capacity and Limitations in Towaoc (EEA) distribution system (CO)
 - Overcoming Rocky Mountain Power (PacifiCorp) constraints (UT)
 - *Does the Tribe care where electricity comes from and how?*
- Commercial Scale:
 - Good Partners
 - Capital
 - Interconnection
 - Markets (best deals we can get)
 - *Long-term Financial Capacity of Tribe (UME, etc.)*
- The Big Question from Tribal Members: ***“What Happened to that Solar Project?..”***
- Thanks for Your Attention

