Committees on Energy Resources & the Environment and Consumers and the Public Interest

Chasing the Sun and Wind: Strategies for Increasing Renewable Energy Adoption Among Tribal Communities

NARUC Summer Policy Summit

Panel

Moderator:

Pilar M. Thomas, Esq.

Panelists:

Paul Schwabe, NREL

Jana Ganion, Blue Lake Rancheria (CA)

Walter Haase, Navajo Tribal Utility Authority

NARUC Summer Policy Summit

Agenda

- Introduction to Indian Country, Energy Sovereignty and Opportunities
- NREL - Tribal Renewable Energy Development and Financing Opportunities
- Blue Lake Rancheria – Microgrid and California Energy Commission Interactions
- Navajo Tribal Utility Authority – Solar Projects and Utility Operations

NARUC Summer Policy Summit

Introduction to Indian Country

- 573 federally recognized tribes
  - 229 in Alaska
  - 102 in California
  - 38 in OK, 29 in WA, 22 in AZ, 21 in NM, 19 in NV
- Indian Tribes are sovereign entities, with inherent sovereign authorities over resources, land, people
- Indian Tribes, tribal members, and tribal entities are not subject to state law ON TRIBAL LANDS
- Indian Tribes have limited authority over non-Indians on tribal lands

NARUC Summer Policy Summit

Tribal Energy Sovereignty

- Tribal utilities: water, electricity, gas, telephone
- Tribal energy and climate change adaptation planning
- Tribal distributed energy projects
- Tribal hosted commercial scale projects

NARUC Summer Policy Summit

Key Opportunities for Tribes

- Partnerships with direct customers – entities with own renewable energy goals
- Distributed energy / energy efficiency projects for energy savings
- Micro grid projects for energy resiliency

NARUC Summer Policy Summit

Contact Information

Pilar M. Thomas

Of Counsel

Lewis Roca Rothgerber Christie LLP

(520) 629-4455

pthomas@lrrc.com

Lewis Roca
ROTHGERBER CHRISTIE

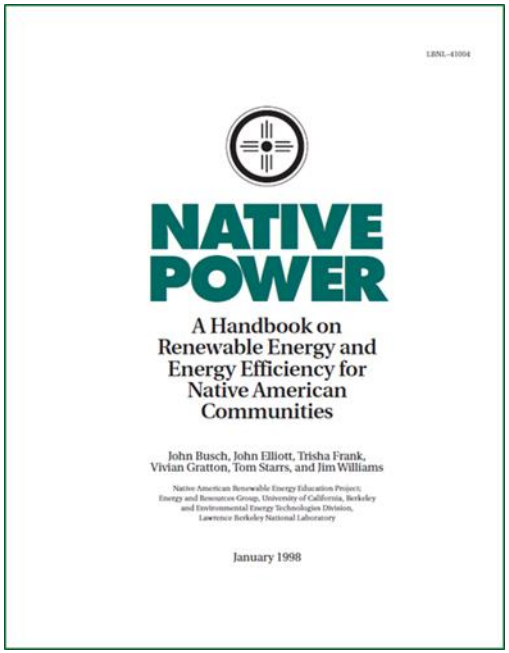
NREL
NATIONAL RENEWABLE ENERGY LABORATORY

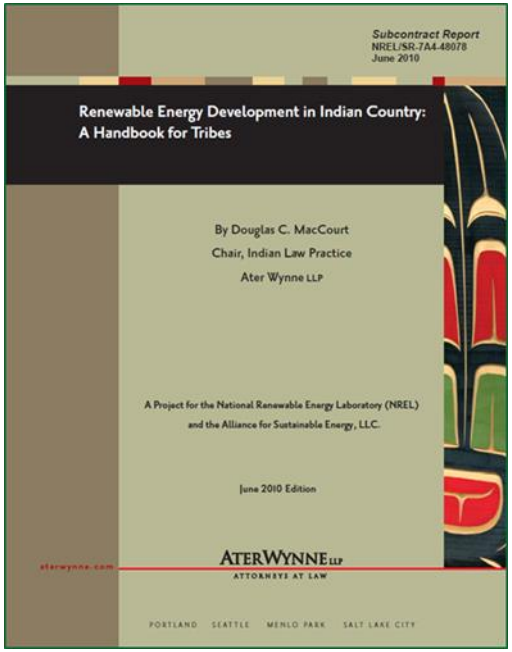
Tribal Energy Development and Financing

Paul Schwabe
NARUC Summer Policy Summit
July 17, 2018

Challenges of Financing Tribal Energy Projects

- Variations in tribal governance structures and degree of separation between government and business enterprises
- Financier comfort and experience with tribal sovereignty
- Barriers to tribal trust land encumbrances
- Tribal credit history and economic sufficiency
- Uncertainty of bankruptcy protections
- Tribal eligibility for federal income tax-based incentives



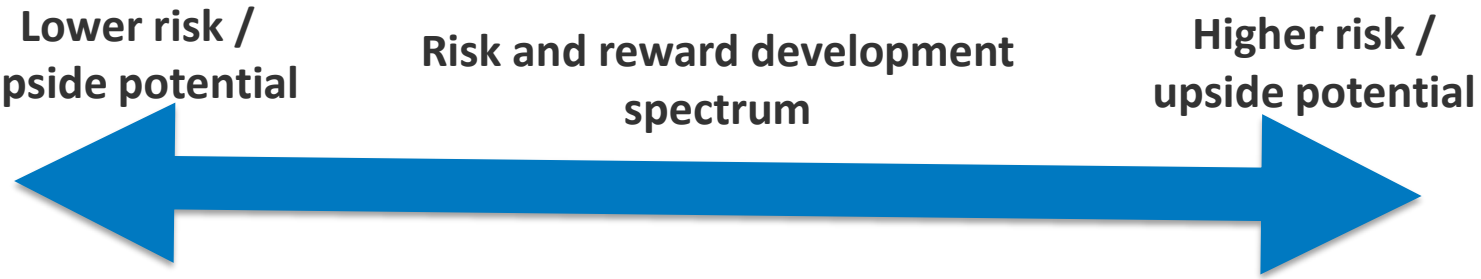


Source: Busch et al. 1998 and MacCourt 2010

Despite Challenges, Multiple Tribal Energy Development Pathways

Options to evaluate:

- Tribal ownership (grant-based)
- Tribal purchaser of energy (i.e. power purchase agreement)
- Tribal host of energy project (i.e. lease and/or royalty payments) and possibly energy purchaser
- Tribal ownership (commercially financed)



Actionable Steps for Pursuing Tribal Energy Projects

1. Secure tribal buy-in/support for pursuing energy options (it takes time, dedication and money)
2. Research tribal finances and various business structures used by tribe for other economic ventures
3. Discuss with local utility and regulators about procuring renewable and other energy options
4. Initiate discussion with possible financing partners

(aka “ask for feedback meeting”)

5. Inquire about free technical assistance by DOE Office of Indian Energy Policy and Programs

Thank You

paul.schwabe@nrel.gov

303-384-7468

www.nrel.gov

This work was authored by the National Renewable Energy Laboratory, operated by Alliance for Sustainable Energy, LLC, for the U.S. Department of Energy (DOE) under Contract No. DE-AC36-08GO28308. Funding provided by U.S. Department of Energy Office of Indian Energy Policy and Programs. The views expressed in the article do not necessarily represent the views of the DOE or the U.S. Government. The U.S. Government retains and the publisher, by accepting the article for publication, acknowledges that the U.S. Government retains a nonexclusive, paid-up, irrevocable, worldwide license to publish or reproduce the published form of this work, or allow others to do so, for U.S. Government purposes.

NREL
NATIONAL RENEWABLE ENERGY LABORATORY

Blue Lake Rancheria

Chasing the Sun and Wind:

Strategies for Increasing Renewable Energy Adoption Among Tribal Communities

NARUC Summer Policy Summit

July 17, 2018

NARUC Summer Policy Summit

About Blue Lake Rancheria

- State and National Collaboration
  - DOE ICEIWG Tribal Working Group | BOEM CA Task Force Offshore Wind
  - CA ICARP TAC | CAPP (AB 617) Consultation Group
- Developed Energy Strategy
  - Goals: reverse climate change; reduce costs; increase resilience
  - Lifeline sector approach: energy, water, food, communication, transportation – supported with 'smart' tech to increase efficiencies
- Community Energy Development
  - Low-carbon community microgrid – 500kW solar, 2MWh storage, six building campus of critical government and economic infrastructure
  - Low-carbon facility microgrid – 'resilience package' for fuel station
  - Energy-water nexus – smart community water grid
  - Low-carbon transportation – EV; biodiesel
  - Residential – solar; storage; EV
  - Continual energy efficiency measures
  - Exploring small (~2MW) utility solar

NARUC Summer Policy Summit

Tribe/State Conditions for Success in California

- Decoupling of energy efficiency from power sales
- Standalone, virtual, and aggregated net metering
- RPS + CCAs and others shifting to zero carbon energy
- Funding and incentives (e.g., EE programs, SGIP, EPIC)
- Strong partnership with PG&E (regional utility), CEC, others
- Transitions to zero carbon energy sector + DERs = new businesses and jobs (important in rural, tribal areas)
- Recognition
  - 2018 “Project of the Year, DER” DistribuTech and *PowerGrid Int’l*
  - 2017 “Whole Community Preparedness Award” FEMA
  - 2015-16 “Climate Action Champion” White House and DOE

NARUC Summer Policy Summit

Solutions and Action Items

- Improve mutual understanding of tribal governments' energy strategies and state PUC roles and policy support
- Expand standalone/virtual/aggregated net metering; explore tribal government carve-out
- Transition RPS to truly zero-carbon; support solar/wind + storage, and EV
- Think through tribal government participation in state programs (e.g., CCAs, low-interest loan programs for RE/EE)
- Think through how tribes with their own utility authorities could collaborate with state PUCs; concept of Tribal Utility Commission(s); and how tribes will be bridging the community-scale / utility-scale markets with increased DER adoption.

Jana Ganion

Sustainability and Government Affairs Director

Blue Lake Rancheria

jganion@bluelakerancheria-nsn.gov

NARUC Summer Policy Summit

NAVAJO TRIBAL UTILITY AUTHORITY

an Enterprise of the Navajo Nation

Strategies for Increasing Renewable Energy Adoption Among Tribal Communities

NARUC Summer Policy Summit - July 17, 2018

Navajo Nation – Southwest USA

- **186,500** People – living in an area **covering 27,000** sq. miles (larger than W. Virginia)
- **Unemployment rate of 45%** (9 times current US average)
- **38% of Navajo people** live below poverty line
- Avg per capita income of **$10,695 vs US avg of $48,377**

- **<u>NTUA Customers</u>: Electric - 41,287; Water – 39,219; Wastewater – 13,990; Natural Gas – 7,888 Photovoltaic 220; Communications 262 (towers/internet service locations)**
- **<u>Current challenge</u>: 15,000 Navajo homes without access to electricity / 18,000 homes without water**

NAVAJO TRIBAL UTILITY AUTHORITY RENEWABLE ENERGY OBJECTIVES

- **Mitigate negative economic impacts from retirements and reduced capacity of coal-fired generation facilities in Navajo Nation**
- **Strengthen and diversify Navajo Nation Economy**

- **Provide wide-ranging economic benefits to the Navajo People, the local community, Navajo Nation, and NTUA**
  - **Create green jobs for Navajo residents**
  - **Create revenue to the Navajo Nation to also benefit local communities**
  - **Produce other local economic benefits associated with job creation and new business development creation of Renewable Energy facilities**
  - **Create revenue stream to contribute to electrification of Navajo homes**

- **Improve infrastructure available for tribal communities, e.g., electricity, water and communication services**

- **Create Economic Development Anchor**

Current Renewable Energy Projects

- **NTUA operates and maintains largest off-grid residential solar fleet in the country**
  - **220 hybrid wind/solar units are located throughout the service territory, majority western part of Navajo Nation**

- **3 out of 7 NTUA District Offices – have large on-grid utility scale systems producing energy for buildings**
  - **One is Gold LEED certified; Another is Platinum LEED certified**

- **In 2017 – NTUA opened the first large scale tribally-owned solar facility on the Navajo Nation, becoming the first Native American Nation to generate 27.3 MW on its ancestral lands**

- **In 2018 – NTUA will break ground to expand Kayenta Solar to generate an additional 27.3 MW**

- **In 2018 – NTUA will create the first majority Navajo-owned 100 MW facility operating outside the Navajo Nation, which led to a PPA partnership with Sacramento Municipal Utility District (SMUD)**

- **In 2018 – very recent - NTUA receives tribal community support to build a 100MW facility north of Flagstaff, Arizona**

KAYENTA SOLAR PROJECT – PHASE I

- **27.3 MW Facility Utility Scale Solar Facility located north of Kayenta, Arizona**
- **First pushed energy to the electric grid in April 2017**
- **Fully operational in May 2017**
- **The project output is producing 2% above the guaranteed minimum output**
- **Water, Electricity, and Communication infrastructure extended to solar project site which benefit Navajo homes near the project**
- **Kayenta Solar Project selected by SEPA as one of the top ten 2018 solar projects in U.S.**

KAYENTA SOLAR PROJECTS - PHASE I / PHASE II
Financial Benefits to Kayenta/Navajo Nation

KAYENTA I

- The construction generated $3,017,055 in taxes to the Navajo Nation
- The first year tax revenue is expected to exceed $211,852 and the 20 year total will generate over $4 M in taxes to the Navajo Nation.
- At the height of construction 284 people were employed - 85% were Navajo descendants
- As a result - Navajo employees received over 4,700 hours of specialized training
- Navajo people were paid $5.2 M as a result of the construction of this project
- The $5.2 M generated over $15.6 M in economic activity in Kayenta region

KAYENTA II

- Because we have an existing workforce to draw from the project is expected to have a higher percentage of workers of Navajo descent
- Anticipated specialized training hours are to be about 3,000 hours
- The construction is estimated to generate over $2 M in taxes to the NN
- Navajo people are expected to receive at least $6.2 M to $7.5 M in wages as a result of the construction of this project which is projected to generate between $18.6 M to $22.5 M in regional economic activity

Key Takeaways for State Regulators

- Tribes are governments – establish government to government relationships
- Tribes are actively developing clean energy strategies and resources, consistent with their tribal community needs and values
- Technology is typically DER, energy efficiency – and soon, microgrids – for cost savings and resiliency
- Tribal electricity systems are interconnected, and can be leveraged to achieve local, regional, state and national energy goals

NARUC Summer Policy Summit