Financial Access for Tribal Renewable Energy

UW Foster School of Business Service Corps MBA Final Presentation
Team Intro

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University of Washington Climate Risk Lab - https://fosteruw.edu/uw-climate-risk-lab/
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Project Overview

Financial Access and Success for Tribal Renewable Energy Projects

Understanding the financial access for tribal energy initiatives is essential for addressing systemic challenges and unlocking opportunities for sustainable energy development in tribal lands.

Project Objective

To explore the renewable energy development process within tribal areas, highlighting existing financing options and barriers to ownership. By examining historical, policy, and financial factors, we aim to provide insights into the challenges faced by US-based tribes in securing development finance for renewable energy projects.

Project Scope

• Assessment of financial barriers and challenges in accessing capital
• Analysis of federal policies, programs, and funding mechanisms
• Insights from different stakeholders: tribal leaders, government agencies, financial institutions, and community organizations

Research Methodology

• Mixed-Methods Approach: Literature review and interviews
• Primary Data Collection: Interviews with key stakeholders (tribe, bank, third-party)
• Secondary Research: Review of academic publications, government reports, policy documents, and industry studies.

Limitation

• The report provides an overview but lacks detailed data on individual tribes’ specific renewable energy potential and challenges.
• Future steps: Conduct case studies on specific tribes to gain deeper insights into unique circumstances and successful practices.
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6. Recommendation & Strategy
Distribution of Tribes and AIAN Populations

Geographic and Demographic Insights

- 9.7 million AI/AN people, comprising **2.9%** of the total U.S. population
- **574** federally recognized American Indian tribes and Alaska Native entities govern **326+** Indian reservations
- Alaska: Over **77%** of the Alaska Native alone population
- Oklahoma: Largest American Indian alone population at **14.2%**
- Arizona, California, New Mexico, Texas (over **50.9%** of American Indian population)

Implication

- Significant variations across states and regions
- Major concentrations in Alaska, Oklahoma, Arizona, California, New Mexico, and Texas
- Complex historical, cultural, and socioeconomic factors
- State-level and regional diversity impacts unique needs and challenges
Triable Renewable Energy Resource Potential
Opportunities, Potential, and Technology Choices

Tribal lands cover 68.5 million surface acres

Hold 6.5% of the country's utility-scale renewable energy potential

Current Tribal Energy Projects (2023)
Office of Indian Energy Policy and Programs Grants (Total 211 projects)

Implication

- The renewable energy development of tribal lands has lagged far behind non-tribal lands
- Vary widely in size, purpose, and location
- Solar energy dominates tribal projects due to technological maturity, policy incentives, and successful initiatives
Role of Tribal Government in Renewable Energy

Understanding Tribe Nations Sovereignty and Economic Development

- **Sovereignty and Responsibilities**
  - US Congress recognizes four sovereigns: federal, state, foreign, and tribal government
  - Responsible for: infrastructure development, regulatory compliance, and providing essential services with the limitation of taxation

- **Economic Development with Renewable Energy**
  - Economic Development & Revenue generation
  - Energy Independence & Lower Energy Costs
  - Environment Issues
  - Job Creation
  - Traditional Values Alignment

- **Role in Renewable Energy**
  - Capital Intensive & Risk
    - Developer/Owner
    - Equity Investor
    - Lender
    - Off-taker (energy purchaser)
    - Landowner
    - O&M subcontractor

### Key Business Structure for Tribe Government

<table>
<thead>
<tr>
<th>Structure</th>
<th>Simplicity &amp; Quick formation</th>
<th>Shield tribal assets</th>
<th>Avoid federal income tax</th>
<th>Separate from tribal control</th>
<th>Ability to secure financing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tribal Instrumentality</td>
<td>✅</td>
<td></td>
<td></td>
<td>✅</td>
<td></td>
</tr>
<tr>
<td>Political Subdivision</td>
<td></td>
<td>✅</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Section 17 Corp</td>
<td></td>
<td>✅</td>
<td></td>
<td>✅</td>
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<tr>
<td>Tribal Law Corp</td>
<td></td>
<td>✅</td>
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<td>✅</td>
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<tr>
<td>State Law Corp</td>
<td></td>
<td></td>
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<td>✅</td>
<td>✅</td>
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<tr>
<td>LLCs/Joint Venture</td>
<td></td>
<td></td>
<td></td>
<td>✅</td>
<td>✅</td>
</tr>
<tr>
<td>LLC (only sole tribe member)</td>
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Understanding the purpose of any economic development project and the role of the tribe government is critical, including assessing financial capacity, risk tolerance, and strategic objectives.
# Tribal Renewable Energy Development Process

## Navigating Phases and Overcoming Challenges

<table>
<thead>
<tr>
<th>Phase</th>
<th>Pre-construction Development</th>
<th>Construction</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td><strong>Finance &amp; Management</strong></td>
<td><strong>Generating Facility</strong></td>
<td><strong>Interconnection</strong></td>
</tr>
<tr>
<td>Pre-construction Development</td>
<td>Tribal sponsor commits resources for initial assessment</td>
<td>ID potential sites</td>
<td>ID transmission/interconnect path</td>
</tr>
<tr>
<td>Development entity raises funds</td>
<td>Forms development entity, solo or as joint venture</td>
<td>Determine suitable site and scale of production</td>
<td>Pay transmission provider for study</td>
</tr>
<tr>
<td>Identifies and secures sources of funding</td>
<td>Pay transmission provider for study</td>
<td>Pay transmission provider for study</td>
<td>Secure final Power Sales Agreement</td>
</tr>
<tr>
<td>Secure all permits and construction contracts</td>
<td>Secure final transmission services &amp; interconnection agreement</td>
<td>Secure final transmission services &amp; interconnection agreement</td>
<td>Secure final Power Sales Agreement</td>
</tr>
</tbody>
</table>

## Challenges

<table>
<thead>
<tr>
<th>Development</th>
<th>Permitting</th>
<th>Finance</th>
<th>Construction</th>
<th>Operating</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Poor resource assessment</td>
<td>- Tribe-adopted code &amp; requirements</td>
<td>- Capital availability</td>
<td>- EPC difficulties</td>
<td>- Output shortfall</td>
</tr>
<tr>
<td>- Overlook possible costs</td>
<td>- Utility interconnection requirements</td>
<td>- Incentive available risk</td>
<td>- Cost overruns</td>
<td>- Technology O&amp;M</td>
</tr>
<tr>
<td>- Community push-bask &amp; land use</td>
<td>- New transmission</td>
<td>- Credit-worthy purchaser of generated energy</td>
<td>- Schedule</td>
<td>- Maintaining transmission access &amp; curtailment</td>
</tr>
<tr>
<td>- Site Access &amp; right of way</td>
<td>- Possible NEPA</td>
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Key Factors in Tribal Renewable Energy Planning
Assessing Ownership, Financing, and Strategic Considerations

### Ownership & Control
- **Direct Ownership**
  - Tribe purchases an energy system with its own funding and possibly other sources like grants
  - Project: Tribe and Electricity Users
  - Payments: Over time, investment recouped from utility bill savings
- **Ownership w/Debt**
  - Tribe finances portion or all of project with a loan.
  - Project: Tribe and Electricity Users
  - Payments: Remaining Energy Needs

### Financing Option
- **Cash**
  - Reserves & General Funds
  - Trusts
  - Operating revenue from other
- **Loan**
  - Commercial / project loan
  - Bonds
  - Loan guarantees
- **Grant**
  - Infrastructure Deployment on Tribal Lands
  - Tribal Solar Accelerator Fund Grant
- **Incentive**
  - Tax incentives (credits, deductions)
  - Production/Investment rebates
  - Environmental attributes
- **Saving Contracts**
  - Energy Savings Performance Contracts
  - Utility Energy Savings Contracts
- **Operating Revenue**
  - Energy Sales
  - Energy Purchases below avoided cost

### Project-Specific Factors
- **Purpose**
  - Offset Utility Purchases
  - Revenue Generation
- **Project Technology**
  - Commercial / Utility
  - Distributed
  - Community-Scale
  - Microgrids
- **Size/Site**
  - Solar
  - Wind
  - ...
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OVERVIEW OF THE REGULATORY LANDSCAPE

Renewable energy development in tribal areas involves a complex network of regulatory and financial stakeholders.

- Provides grant opportunities, loan guarantees and technical assistance
- Administers tax incentives

Collaborate with tribes to structure financing and loans that are tailored to the unique needs of tribal projects

Offers support to tribes in navigating the regulatory landscape

Tribal governments: primary decision makers
Community members: support & involvement

Private Capital

Tribal Community

Support

Capital Market
- Community Banks
- Tribal Lenders

Government Agencies
- Department of Energy
- Department of Interior
- Department of Commerce
- Environmental Protection Agency
- Internal Revenue Service

Public Funding
## REGULATORY INITIATIVES

### Pathways to capital

#### Public Subsidy
- Project funding and technical support
- Federal opportunities include competitive and non-competitive fundings provided by the DOE and DOI.
- State grants, rebates and technical supports

- Direct, upfront capital
  - Complex application process
  - Subject to budget allocations and political changes

#### Tax Incentives
- Enables tribes to receive tax refund through IRA’s new “Direct Pay” provision.
- Up to 50% of construction cost

- New pathway to monetarization
  - Time lag in tax refund
  - Require extensive knowledge and resources

#### Public-Private Partnership
- Leverages federal funds to attract private investment to catalyze investment in clean energy projects and technologies
- Greenhouse Gas Reduction Fund

- Amplify the impact of federal funds
  - Misalignment of private sector interest to community goals
  - Lack of incentives
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Stakeholder Dynamic and Contribution to Barriers
Assessing Stakeholder Perspectives & Institutional Priorities

Government Institutions

Site Acquisition & Approval
- Renewable Energy requires large amounts of land that mandate several stakeholders to agree
- Each have complex regulatory requirements and required documentation to be filled out.

Environmental Regulations
- National Environmental Policy Act (NEPA) & Endangered Species Act (ESA) require assessments
- Cooperative agreements aim to conduct environmental that respects tribal sovereignty and aligns with federal standards

Political Shifts & Affect on Resourcing
- Resourcing is guided by political agenda of party in Presidential Office
- Leads to volatility in the institutional longevity due to how next leader prioritizes renewable energy development

Key Challenges Identified
- Difficult Navigation of Processes & Agreements
- Misalignment Among Parties
Provide Funding for Tribal RE Development

- Offer bridge loans to tribes, helping mitigate timing mismatches between capital deployment and tax credit receipt.
- Collaborate with tribes to structure financing arrangements, streamlining the process and providing support in navigating complex financial requirements.

Bridge Gaps in Funding Timeline

- Mobilizing private investment for renewable energy projects by leveraging private capital to complement public funding

Key Challenges Identified

- Timing Mismatches of Funding (Long Timelines)
- Lack of Tribal Lenders due to Risk Perception
- Cultural Naivety in Working with Tribes
Stakeholder Dynamic and Contribution to Barriers
Assessing Stakeholder Perspectives & Institutional Priorities

Tribal Sovereign

Tribes bear governmental responsibilities

- Main priority is to provide welfare for tribal members and generate revenue to self-support

Priorities & Process Differ for Tribes

- Tribes represent a large population of underserved communities
- Processes for tribes are designed by the sovereign, not guided by federal or financial institutions

Key Challenges Identified

- Gap in Regulatory & Legal Compliance
- Lack of Documentation Standardization
- Socioeconomic Barriers in Education/Specialization
Federal Bureaucratic Barrier

Lack of Federal Recognition/Omission & Systematic Inefficiencies are a Constraint on Access

~400 There are over 400 tribes that are not federally recognized. These tribes are omitted from statistics that drive agendas and face unique challenges in resourcing. (BIA)

### Challenges Faced by Unrecognized Tribes

- Limited Sovereignty and no government-to-government connections.
- Limited Access to Federal Programs
- Economic Limitations (e.g. Gaming Regulatory Act)
- No Trust Lands
- Fewer Resources for Cultural Activities and challenges in protecting sacred sites.

### Challenges Faced by ALL Tribes

- Bureaucratic inefficiencies and complexities within federal agencies can lead to delays, confusion, and obstacles in navigating regulatory processes and accessing services.
- Disparities in access to information, education, resources, and support further exacerbate barriers.

**Addressing These Bureaucratic Barriers** requires efforts to improve recognition, streamline processes, enhance transparency, and promote equity and inclusion in federal governance and decision-making.
Barriers with Tribal Internal Administration

The difficulty in reaching internal administration within First Nations presents several barriers to renewable energy development.

Complex Decision-Making Structures
- Tribal governments often have complex decision-making structures which lead to delays or impasses in project approval and implementation.
- Navigating these structures requires fostering inclusive dialogue and building capacity for decision-making.

Uncertainty and Funding Setbacks
- Without unified support and clear processes for decision-making, renewable energy initiatives may face uncertainty, funding setbacks, and prolonged timelines.
- This can hinder the timely implementation of projects and limit their overall success.

Lack of Clarity in Governance Frameworks
- Establishing transparent governance frameworks that align with tribal goals and values is essential for overcoming internal administrative hurdles.
- Lack of clarity in these frameworks can impede progress and create challenges in project alignment and execution.
Financial Barriers
Access to finding remains challenging despite efforts such as BIL and IRA

40%

“President’s Justice40 Initiative goal that 40 percent of the overall benefits of certain federal investments flow to disadvantaged communities that are marginalized by underinvestment and overburdened by pollution, including Tribal communities.” (2024, The White House Press Release)

The Costs of Delays

- Inflation of development costs (e.g. Construction) may escalate during the time that agreements are in negotiation
- New technologies or requirements may need revision in designs, leading to further delays
- Tribal nations may become discouraged by the delays that they give up, or their financing may vanish
- Lenders who require speedy returns may be deterred from engaging
Implications for Tribal Renewable Energy Development
Navigating Multiple Layers of Factors & Systems of Friction

1 Federal Recognition and Access to Resources
- 574 federally recognized tribes vs.
- 400+ non-federally recognized tribes face funding voids, limiting access to federal and state resources

2 Complex Native American Land Ownership
- A mix of trust lands and fee lands, each with specific legal and regulatory frameworks
- Shared natural resources with other tribes or non-tribe communities

3 Socioeconomic Disparities
- Lower educational attainment, higher poverty rates, and higher unemployment
  - 20.8% hold a bachelor’s degree in tribes vs. 36.9% of white

4 Cultural and Environmental Stewardship
- The Seventh Generation principle: long-term impacts on future generations
- Tribal storytelling and traditions offer insights into sustainable land use and community engagement, fostering meaningful partnerships in renewable energy projects

5 Unique Indigenous Renewable Solutions
- Each tribe has distinct approaches to renewable energy based on geographical location, traditional practices, and community priorities
- Tailored solutions respect cultural heritage and environmental values

6 Financial Policies
- Limited Access to funding and perceived risk in working with tribal nations.
- Timing Mismatches make funding difficult to secure and adds risk to project completion.
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Recommendations

1 Outreach Programs

Outreach programs are developed by State government Commerce and have been proven very successful. Recommend expanding across all states with First Nation’s Lands. Worth noting Commerce emails also contain education and training resources for grant proposals.

WA State Commerce Clean Energy Fund was used for Tribal Renewable Energy Projects (2024)

71% Total Funding Awarded in 2024

$5.73M

With one of the more prominent barriers being a lack of systematical integration from the tribes and the governments we came across 2 recommendations worth investigating for implementation focused around inclusive collaboration and system efficiency.

2 Principle Guide

A guide co-designed with federal agencies and research teams with sole purpose of identifying gaps and developing principles to mitigate layers of friction

Recommended action: assemble a council and research team to roadmap key contributors and develop paths of open communication to develop guide based off AU’s Leading Practice Principles First Nations and Renewable Energy Projects - Clean Energy Finance Corporation.

"This is the first comprehensive national Guide on First Nations engagement, participation and benefit-sharing, for renewable energy projects, co-designed by First Nations peoples."
Recommendation from Third-Parties
Collaborative Approaches and Financial Mechanisms for Sustainable Projects

Clarify Goals and Maintain Authenticity
- Transparent communication about project objectives and funding sources
- Ensure tribal communities lead in project development: trust and long-term partnerships
- Address historical concerns of green colonization and multiple solicitations

Develop Market-Based Solutions
- Collaborate between public and private sectors to drive incentives
- Establish transparent and fair rate designs to encourage investment and participation
- Incentivize resilience programs to ensure equitable distribution of economic and environmental benefits

Build Equitable Frameworks for Technical Assistance
- Create clear criteria for project prioritization and open communication channels
- Provide unbiased support from independent technical advisors to all communities
- Engage consistently and authentically with community members from the early stages of project planning

Establish a Dedicated Green Bank
- Offer low-interest loans, grants, and financial products to overcome capital barriers
- Empower communities by providing consistent and accessible funding for renewable energy projects
- Foster long-term economic and environmental benefits through community ownership of energy solutions
Takeaways From Our Research

Cultural storytelling and long-term, authentic engagement are crucial for gaining tribal community support

Cultural story-telling plays a tremendous role in engaging with the tribal communities.

Long-term and authentic engagement with the tribes is critical for the success of any research projects or development projects with the tribal community.

“Stop talking and instead center the tribes in the discussions”

“Work at the tribe’s speed and sometimes it means working slowly”
THANK YOU ...