



Addressing Regulatory Challenges to Tribal Solar Deployment Summary Slides

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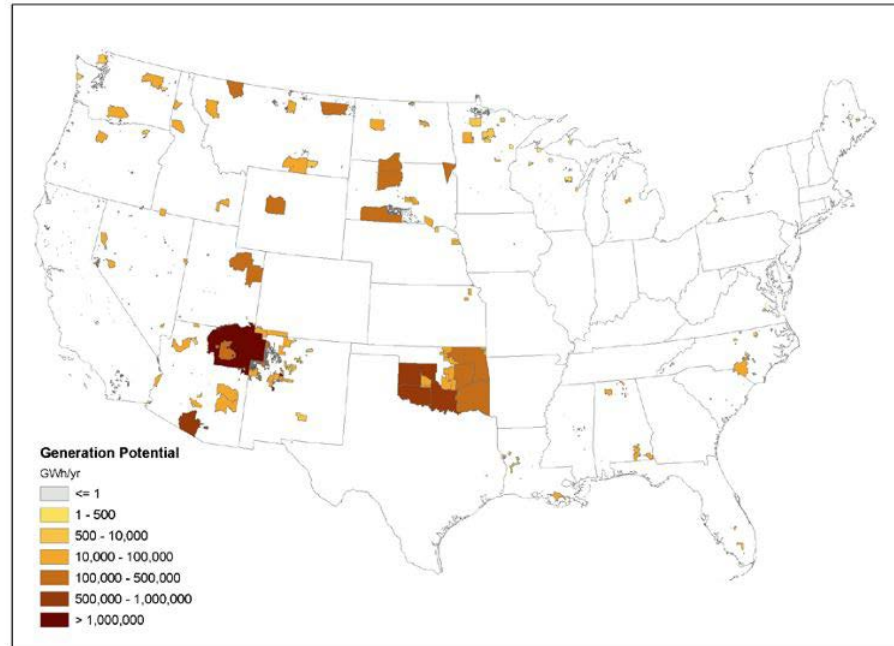
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Background

Tribal lands represent approximately 6.5% of total U.S. utility-scale renewable energy technical potential, but this resource is largely untapped.



Photovoltaic generation potential by reservation

This project articulates key regulatory challenges or barriers that affect solar projects **specifically** or **disproportionately** because they are on Tribal lands.

Regulatory Barriers

Regulatory process: any decision-making process that involves making rules that govern where, when, or how a solar project can be developed

Jurisdictional Level	Organization
Tribal	Tribal government
Local Utility	Cooperative utility (or similar) governing board
Local	County
State	State public utility commission
Regional	Independent system operator/regional transmission operator
Federal	Federal Energy Regulatory Commission

Solar Project Scale



The regulatory barriers that impact a solar project change based on the size of a project. This figure illustrates the different scales of rooftop projects. The size ranges are estimates, and not every project will fall within the defined range. All project scales were considered in this project.

Book One: Regulatory Challenges and Solutions for Tribal Solar Development

Presents each significant regulatory
challenge and associated solutions



Book One Contents

- **Barrier 1:** Lack of Tribal Representation in Utility, State, or Federal Energy Policy Decision-Making Processes
- **Barrier 2:** Tribal Government or Enterprise Leadership and Staff Energy-Related Capacity
- **Barrier 3:** Tribes Served by Multiple Utilities
- **Barrier 4:** Net Metering Limits or Lack of a Net Metering Policy
- **Barrier 5:** Limits of Third-Party Ownerships
- **Barrier 6:** Distributed Generation Interconnection Requirements
- **Barrier 7:** Tribal Utility Formation Desire Conflicts with Existing Net Metering Arrangements
- **Barrier 8:** Tribes Served by Cooperative Utilities that are Not State-Regulated
- **Barrier 9:** Distributed Solar Program Incompatibility with Tribal Facility Circumstances
- **Resolved Barrier:** The Inflation Reduction Act Solves the Issues with the Non-Taxability of Tribes and Previous Investment Tax Credit Rules
- **Barrier 11:** Additional Required Development Steps Can Impact Economics of Tribally Sited Utility-Scale Solar Projects
- **Barrier 12:** Property Taxation Jurisdiction Questions Cause Double Taxation
- **Barrier 13:** Lack of Tribal Land Use Planning or Land Entitlement Procedures

Barrier 1: Lack of Tribal Representation in Utility, State, or Federal Energy Policy Decision-Making Processes

Tribes are often not represented in decision-making processes that impact their ability to develop energy projects.

- Relevant project scale: all
- Relevant jurisdiction: all

Potential reasons

- Time
- Financial resources
- Technical expertise
- Sovereignty concerns
- Election procedures.

Short-Term/Workaround Solutions	Long-Term Solutions
<ul style="list-style-type: none">• Outreach from Tribal staff or leadership to elected and appointed officials with info about Tribal perspectives or priorities• Tribal liaison positions.	<ul style="list-style-type: none">• Tribal members run for or get appointed to office.• Generic dockets.

Barrier 2: Tribal Government or Enterprise Leadership and Staff Energy-Related Technical Capacity

Tribal staff and leadership often do not have time or experience to deeply and effectively engage in solar project development.

- Relevant project scale: all
- Relevant jurisdiction: Tribal government or enterprise

Short-Term/Workaround Solutions

- Council resolutions to support specific solar projects.

Long-Term Solutions

- Long-term planning initiatives such as strategic energy plans or economic development plans
- Fund an energy-focused staff position
- Engage with intertribal organizations for knowledge-sharing.

Barrier 3: Tribes Served by Multiple Utilities

Energy project decisions are more complicated when Tribes are served by more than one utility.

- Relevant project scale: distributed, facility, behind-the-meter
- Relevant jurisdiction: local utility

Short-Term/Workaround Solutions

- Work within the constraints of multiple utilities using tools and resources
- Early engagement with utilities
- Design projects to only work with one utility
- Discuss potential policy changes with the multiple utilities for more uniformity.

Long-Term Solutions

- Form a Tribally owned utility
- Develop Tribal utility codes.

Barrier 4: Net Metering Limits or Lack of a Net Metering Policy

Net metering can have an impact on the economic viability of a project. Policies, or lack thereof, can be a limiting factor for Tribal solar.

- Relevant project scale: distributed, facility, behind-the-meter, often referred to as “rooftop” solar
- Relevant jurisdiction: local utility, governed by the state or the utility’s board of directors

Potential factors:

- Compensation rate
- No net metering rate or policy
- Size cap.

Short-Term/Workaround Solutions

- Split solar projects into smaller projects to meet size caps.

Long-Term Solutions

- Work with utility or rulemaking proceedings to modify or establish net metering rules
- Negotiate net-metering allowances into right of way access.

Net metering: billing mechanism that credits utility customers who have distributed generation on-site for electricity they export to the grid. Customers are only billed by the utility for their net energy use.

Barrier 5: Limits of Third-Party Ownerships

Third-party ownership arrangements can make projects more cost-effective, but third-party ownership rules can be unclear, or such a system may be prohibited in a jurisdiction.

- Relevant project scale: distributed, facility, behind-the-meter
- Relevant jurisdiction: state regulator

Short-Term/Workaround Solutions

- Work with the utility so the utility allows the interconnection
- Work with the state and utility early in a project to determine allowable business models.

Long-Term Solutions

- State legislature creates a policy to allow third-party ownership.
- Judicial ruling enable
- Regulatory change
- Change Tribal law code to permit third-party ownership.

Barrier 6: Distributed Generation Interconnection Requirements

Interconnection policies may not be clear or streamlined, which can prevent or delay projects.

- Relevant project scale: distributed
- Relevant jurisdiction: local utility regulatory board or state

Short-Term/Workaround Solutions	Long-Term Solutions
<ul style="list-style-type: none">• Negotiate with utility for project-specific solutions• Work with utility for broad policy change	<ul style="list-style-type: none">• Tribes can create regulations that establish interconnection rules, procedures, and enforcement provisions.

Barrier 7: Tribal Utility Formation Desire Conflicts with Existing Net Metering Agreements

If a Tribe with existing net metering arrangements takes over the utility in their service area, the Tribal enterprise will need to decide whether to honor preexisting arrangements.

- Relevant project scale: distributed
- Relevant jurisdiction: utility and Tribe

Short-Term/Workaround Solutions

- Evaluate project economics to assess impact of changes to net metering agreements
- Honor arrangements for specific installations.

Long-Term Solutions

- The new Tribal utility takes over the electrical system, exclusive of customers with net metering with incumbent utility.

Barrier 8: Tribes Served by Cooperative Utilities that are Not State-Regulated

Electric cooperatives are largely unregulated, and Tribes may have little ability to participate in decision-making processes.

- Relevant project scale: all, more relevant at the distributed scale
- Relevant jurisdiction: incumbent cooperative utility

Short-Term/Workaround Solutions

- Engage directly and often with the co-op governing board
- Connect with the National Rural Electric Cooperative Organization for services.

Long-Term Solutions

- Appeal to FERC
- Negotiate rights of way
- Pursue state legislation for policy solutions
- Tribal members stand for election to the co-op board.

Barrier 9: Distributed Solar Program Incompatibility with Tribal Facility Circumstances

Residential rooftop solar can be desirable for a Tribe, but several factors can impede development.

- Relevant project scale: distributed, facility, behind-the-meter
- Relevant jurisdiction: local utility

Potential factors:

- Rooftop structure and orientation
- Buildings do not meet utility codes for rooftop installation.
- Home ownership requirements built into funding mechanisms
- Multifamily housing split incentive issue
- Utility rules and regulations regarding deployment and compensation.

Long-Term Solutions

- Tribal building codes so that all buildings are designed to be “solar-ready”
- Submit comments to regional organizations in support of distributed generation
- Utility-owned and utility-operated residential solar programs.

Resolved Barrier: The Inflation Reduction Act Solves the Issues with the Non-Taxability of Tribes and Previous Investment Tax Credit Rules

Pre-Inflation Reduction Act (IRA)

Tribes could not take advantage of the federal solar investment tax credit (ITC), and therefore projects were more expensive.

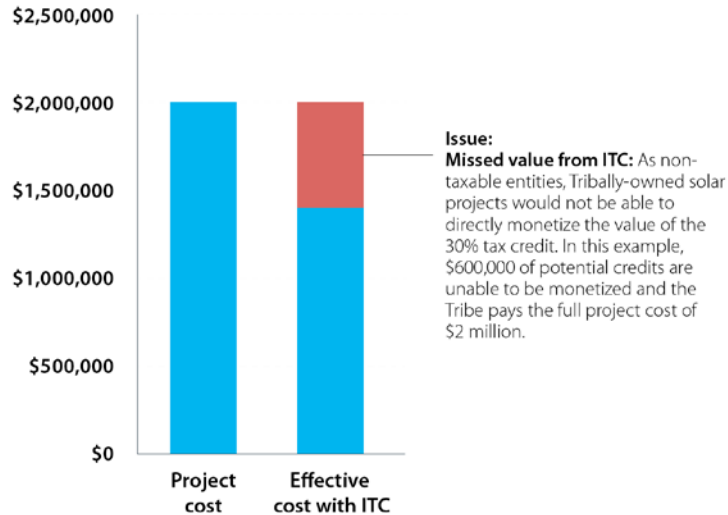
- Relevant project scale: all
- Relevant jurisdiction: federal tax law

Impacts of the IRA

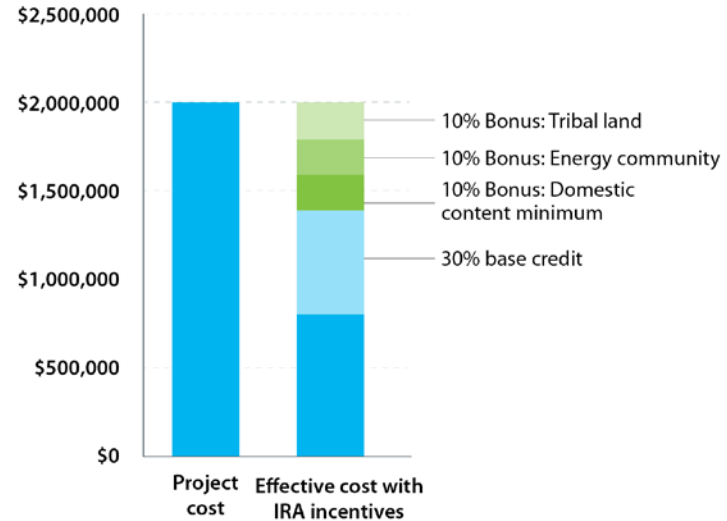
- Federal legislation allows Tribes to capture the value of the ITC.
- Tribes have the “direct pay” option to directly receive ITC credit without a federal income tax burden.
- Transferability of credit is another option for Tribes to monetize the ITC in situations in which direct pay does not apply.

Impact of IRA Provisions

Example: 1-MW Tribal Solar Project **Before IRA Provisions**



Example: 1-MW Tribal Solar Project **After IRA Provisions**



IRA benefits:

New mechanisms for Tribes to receive the value of the ITC: The IRA allows Tribes to monetize the value of the ITC through the direct pay option and transferability of credits. In this example, the combined value of the ITC is \$1.2 million, which reduces the effective cost of the project to \$800,000.

Potentially larger ITC credits: Tribally owned solar projects that meet certain criteria have the potential to receive larger credits than in the past. This example shows that the new IRA incentives could double the ITC credit to 60% for a project that received the base ITC rate combined with the domestic content bonus, energy community bonus, and Tribal Land bonus.

Barrier 11: Additional Required Development Steps can Impact Economics of Tribally Sited Utility-Scale Solar Projects

Tribal project cost of energy may be higher than non-Tribal projects, and some Tribal projects therefore face difficulties competing in utility solicitations.

- Relevant project scale: utility
- Relevant jurisdiction: utility, state, federal.

Short-Term/Workaround Solutions

- Discuss project options with a range of interested stakeholders for additional opportunities
- Work with state regulators or utility for opportunities.

Long-Term Solutions

- Participate in utility resource planning
- Intervene in state regulatory proceedings
- Pursue changes to federal policy.

Barrier 12: Property Taxation Jurisdiction Questions Cause Double Taxation

When states or counties attempt to impose property taxes on projects on Tribal land, and the Tribe also has a property tax structure, this results in double taxation. Therefore, projects will likely not be competitive.

- Relevant project scale: utility
- Relevant jurisdiction: state and Tribal.

This matter is in court (as of February 2023).

Short-Term/Workaround Solutions	Long-Term Solutions
<ul style="list-style-type: none">• Negotiate a tax-sharing agreement with a local jurisdiction.	<ul style="list-style-type: none">• Tribe can take the jurisdiction to court to prevent it from imposing taxes.

Barrier 13: Lack of Tribal Land Use Planning or Land Entitlement Procedures

Unclear or nonexistent land use planning or land entitlement procedures can cause confusion and extend project timelines.

- Relevant project scale: utility, distributed
- Relevant jurisdiction: local.

Short-Term/Workaround Solutions	Long-Term Solutions
<ul style="list-style-type: none">• Ad hoc decisions for projects, get one-off permissions• Work with Tribal Historic Preservation Offices• Project planning to account for NEPA review process• Understand neighboring land use management and form partnerships.	<ul style="list-style-type: none">• Establish Tribal land policy.

Book Two: Case Studies

Presents a set of case studies of Tribal solar deployment projects and examples of solutions



Book Two Contents

- **Agua Caliente Band of Cahuilla Indians:** Navigates Geographic Constraints and Builds Relationships to Advance Solar
- **Eastern Band of Cherokee Indians:** Demonstrates Success of Long-Term Stepwise Strategy
- **Kit Carson Electric Cooperative:** Building the Model for Cooperative Solar Projects
- **Leech Lake Band of Ojibwe:** Project Adaptability and Tribal-Utility Relations
- **Navajo Tribal Utility Authority:** 55 MW of Solar for Revenue and Reliability
- **Red Lake Band of Chippewa Indians:** Crowdfunding Supports Development of Rooftop Solar and Storage
- **Saginaw Chippewa Indian Tribes of Michigan:** Tribal Utility to Drive Economic Development
- **Seminole Tribe of Florida:** Proves New Procurement Models in Pursuit of Energy Sovereignty Goals
- **Bonneville Power Administration and the Public Service Company of New Mexico:** Tribal Liaison Offices Support Strong Relationships Working Toward Tribal Energy Goals
- **Gila River Indian Community Utility Authority and Navajo Tribal Utility Authority:** Allocation Part of the Utility-Scale Project for Internal Load
- **Public Service Company of New Mexico, Arizona Public Service Company, and Salt River Project:** Utilities with Tribal Requests for Proposals

Agua Caliente Band of Cahuilla Indians

Navigates Geographic Constraints and Builds Relationships to Advance Solar

Challenge	Solution(s)
Rate negotiation: The utility did not have the accounting structure in place to accommodate the non-residential, noncommercial project.	<ul style="list-style-type: none">• Utility Tribal liaison• Customized rate structures
Intra-tribal communication: Solar has higher upfront costs and longer payback times—than hospitality, tourism, and gaming. Solar can be seen as a riskier investment.	<ul style="list-style-type: none">• Communicate the other benefits of solar
Checkerboarding: Few contiguous Tribal areas are larger than one square mile.	<ul style="list-style-type: none">• Facility-scale projects to fit land constraints

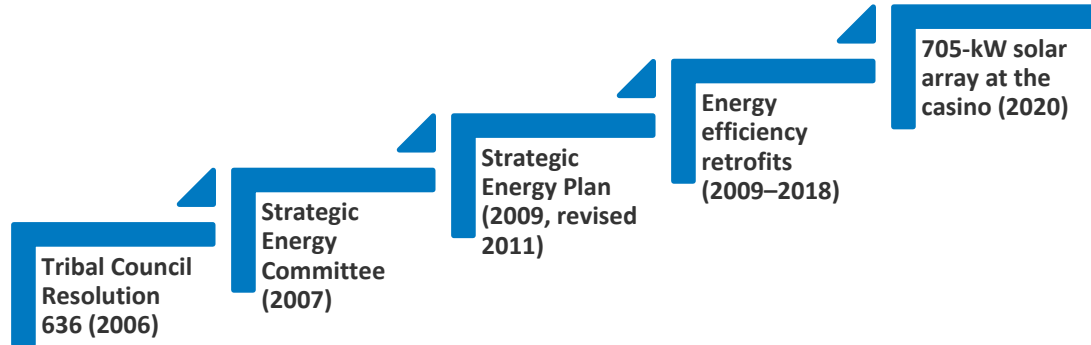


80-kW parking canopy solar system at Agua Caliente reduces annual Tribal office electricity cost from \$22,000 to \$200.

Eastern Band of Cherokee Indians (EBCI)

Demonstrates Success of Long-Term Stepwise Strategy

EBCI used a long-term stepwise strategy to pursue a 705-kW solar array at the Cherokee Valley River Casino. It offsets approximately 10% of electricity usage across the casino, hotel, and two administrative buildings.



Kit Carson Electric Cooperative

Building the Model for Cooperative Solar Projects

Kit Carson Electric Cooperative strives to build strong relationships with its member Tribes through:

- Standing meetings with Tribal governments
- Visits to Tribal government agencies and councils
- The understanding of and respect for internal decision-making processes and energy goals.



Breaking ground on a 1-MW array at Picuris Pueblo, New Mexico. The cooperative, Kit Carson Electric Cooperative, works closely with the Tribe.

Leech Lake Band of Ojibwe

Project Adaptability and Tribal-Utility Relations

Challenge	Solution(s)
<p>Net metering: Minnesota's net metering policy allows for solar systems of 40 kW or less. Leech Lake wanted to install a 200-kW project.</p>	<ul style="list-style-type: none">• Divide the project into five 39.9-kW projects.
<p>Tribe served by five separate utilities.</p>	<ul style="list-style-type: none">• Evaluate each utility policy to determine costs and benefits• Site the five solar arrays in four different service territories. Negotiate different contracts using virtual net metering policies.



Installing one of the five solar photovoltaic projects

Navajo Tribal Utility Authority

55 MW of Solar for Revenue and Reliability

The Navajo Tribal Utility Authority (NTUA) managed the development, construction, and commissioning of two utility-scale projects in Arizona. The Kayenta I and II projects benefit the Tribe in the following ways:

- Job training and opportunities
- Additional revenue sources for NTUA
- Reliability to the NTUA system.

“It was critical to this project’s success that NTUA work closely with the Navajo central government, the local chapter, and other stakeholders, along with the families involved in order to arrive at a project that would meet our mutual goals.”

– Glenn Steiger, NTUA

Red Lake Band of Chippewa Indians

Crowdfunding Supports Development of Rooftop Solar and Storage

The Red Lake Band of Chippewa Indians pursued solar financing for a 70-kW array and energy storage system at the Tribal government center through a Minnesota-based crowdfunding platform.



70-kW rooftop array at the Red Lake Band's Tribal government center

Challenge	Solution(s)
Land ownership structures: Because Tribal landownership structures are unfamiliar to most financial institutions, it can be difficult to find financing.	Use a crowdfunding mechanism.
ITC Rules: At the time of the project, a Tribe could not take advantage of the ITC.	Develop a taxable entity.
Passive Investment Rules: The ITC required passive investors to make a minimum investment of \$3,000.	Use a crowdfunding mechanism to find investors who can meet this requirement.

Saginaw Chippewa Indian Tribe of Michigan

Tribal Utility to Support Economic Development

When the Saginaw Chippewa Indian Tribe of Michigan started planning a casino and hotel expansion, it discovered that the increased electricity use would require a distribution network upgrade by the incumbent utility.

Instead, the Tribe joined the Midcontinent Independent System Operator (MISO) wholesale market and built its own substation.

The Tribe also formed the Saginaw Chippewa Indian Tribe of Michigan Tribal Electric Authority. It sells power to non-Tribal retail customers and the Tribal hotel and casino.



Saginaw Chippewa Indian Tribe of Michigan's substation supporting Tribal utility operations

Seminole Tribe of Florida

Proves New Procurement Models in Pursuit of Energy Sovereignty Goals

The Seminole Tribe of Florida built a 445-kW multifacility solar project using streamlined procurement mechanisms:

- Separate contracting mechanism for operation and maintenance and design build
- Solicited for the training of Tribal technicians.



Seminole Tribe of Florida's ground-mounted solar array

Bonneville Power Administration and Public Service Company of New Mexico

Tribal Liaison Offices Support Strong Relationships Working Toward Tribal Energy Goals

Tribal liaison offices have many benefits, including:

- Maintain strong relationships with Tribes
- Educate internal staff
- Provide a voice for Tribal issues across divisions of the company
- Encourage better coordination between Tribal and utility interests
- Better understanding of common ground
- More productive negotiation and dispute resolution.

“Our work is ultimately for our people, all Native people, and we must remain humble, be transparent, and advocate in the best interests of the people and communities we serve.”

– Cathy Newby, Public Service Company of New Mexico

Gila River Indian Community Utility Authority and Navajo Tribal Utility Authority

Allocating Part of Utility-Scale Project for Internal Load

The Gila River Indian Community Utility Authority is the off-taker for 20% of a 50-MW array for grid stability and affordable rates.

Navajo Tribal Utility has earmarked 4 MW of a 70-MW project to support grid stability.



Aerial view of the NTUA Red Mesa array

Public Service Company of New Mexico (PNM), Arizona Public Service Company (APS), and Salt River Project (SRP)

Utilities with Tribal Requests for Proposals

One way to support Tribally sited renewable energy project development is to include Tribal preference in competitive solicitations. Examples include:

- An RFP from SRP required the developer to extend infrastructure to local Navajo homes.
- A PNM RFP prioritized proposals that maximize use of the New Mexico workforce and employ apprentices.
- APS RFPs for solar development on or near Navajo land focus on economic development.



As part of their coal-exit strategies, some utilities are working with Tribes on renewable energy.

Book Three: Issue Briefs

Presents details on issues that are uniquely or specifically relevant to solar deployment on Tribal land



Book Three Contents

- **Issue Brief 1:** Tribal Sovereignty
- **Issue Brief 2:** Land Jurisdiction Considerations
- **Issue Brief 3:** Relevant Federal Legislation for Utility-Scale Solar Projects
- **Issue Brief 4:** Tribal Business Structures
- **Issue Brief 5:** Utility Tribal Engagement
- **Issue Brief 6:** Existence of a Tribal Electric Utility

Issue Brief 1: Tribal Sovereignty

Tribal sovereignty refers to the inherent right of Tribes to govern themselves, their borders, lands, and people. It is directly tied to cultural beliefs, lands, and historical traditions.

Tribal sovereignty provides several tools Tribes can wield to better support their communities' energy goals.

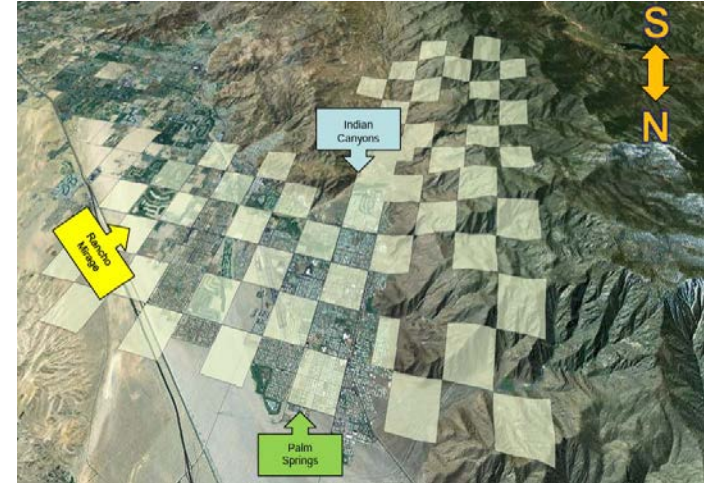
Non-Tribal developers can work to understand the impacts of Tribal sovereignty on project planning, permitting, execution, and ownership.

Issue Brief 2: Land Jurisdiction Considerations

Land ownership and designation can be complicated on Tribal Lands.

In general, there are four common Tribal land holdings:

- Trust lands: federal government holds title, but use is governed by Tribes; subject to certain federal laws
- Restricted fee lands: land to which a Tribe or individual Tribal member holds legal title, but title is subject to restrictions by the United States against alienation or encumbrance
- Fee or “fee simple” lands: lands previously conveyed out of Tribal ownership, freely alienable, or can be encumbered without federal approval
- Allotted lands: lands owned by the United States in trust for one or more individual Tribal members; may not be within reservation territory or affiliated with a Tribe.



Agua Caliente land is highlighted in the Palm Springs California area, displaying the “checkerboard” pattern.

Checkerboarding is a situation in which land ownership is intermingled between two or more owners or statuses that fall under various jurisdictions.

Issue Brief 3: Relevant Federal Legislation for Utility-Scale Projects

A high degree of coordination between Tribes, utilities, contractors, and multiple levels of government is required for successful utility-scale projects.

Key federal approvals and legislation relevant to solar on Tribal lands include:

- Indian Tribal Energy Development and Self-Determination Act (ITEDSA) (2005)
- Tribal Energy Resource Agreement (TERA)
- Wind and solar resource (WSR) leases
- The Helping Expedite and Advance Responsible Tribal Homeownership Act (HEARTH) (2012)
- National Environmental Policy Act (1970).

Issue Brief 4: Tribal Business Structures

Tribes use a variety of business structures to operate business enterprises.

Business structures may take the following forms:

- Section 17 corporation: federally chartered corporation wholly owned by the Tribe; framework that allows Tribe to separate Tribal business assets and liabilities from Tribal governmental assets
- State-law corporation: a legal entity partially or wholly owned by a Tribe; formed under state laws
- Tribal law corporation: a limited liability corporation organized by Tribal government in accordance with Tribal code or resolution; not subject to state regulation or taxation.

Overview of Tribal Business Structures and Legal and Tax Implications

Business Structure	Pay Federal Taxes?	Access to Federal Tax Credits?	Pay State Taxes?	Shield Tribal Assets	Sovereign Immunity
Section 17 Corporation	No	No	No	Yes	Typically
State Law Corporation	Yes	Yes	Maybe	Yes	Limited
Tribal Law Corporation	Maybe	Maybe	No	Yes	Yes

Issue Brief 5: Utility-Tribal Engagement

The following strategies can be used to build strong relationships between Tribes, utilities, regulators, and other stakeholders:

- Prioritize Tribal hiring
- Establish clear lines of communication
- Improve accessibility in the decision-making process
- Learn about communities' cultural values and beliefs
- Formalize Tribal relationships.



Tribes should have a “seat at the table” when it comes to energy decisions that affect their lands. Participants take part in the 2018 Energy Planning and Development Workshop in Kodiak, Alaska.

Issue Brief 6: Existence of a Tribal Utility

More than 20 Tribes have electric utilities that provide service to some or all customers on their Tribal lands.

There are several potential configurations of these utilities:

- Business entity structure
- Governance structure
- Service territory
- Infrastructure ownership
- Utility operations.

Additional Slides

Additional Content

- List of Abbreviations and Acroynyms
- Glossary
- Nonregulatory Barriers
- *Addressing Regulatory Challenges to Tribal Solar Deployment: Full Guidebook and Key Findings Report*

List of Abbreviations and Acronyms

APS	Arizona Public Service
EBCI	Eastern Band of Cherokee Indians
HEARTH	Helping Expedite and Advance Responsible Tribal Home
IRA	Infrastructure Reduction Act (2022)
ITC	investment tax credit
ITEDSA	Indian Tribal Energy Development and Self-Determination Act
MISO	Midcontinent Independent System Operator
NTUA	Navajo Tribal Utility Authority
PNM	Public Service Company of New Mexico
PV	photovoltaics
RFP	request for proposal
TERA	Tribal Energy Resource Agreement
WSR	wind and solar resource

Glossary

Allotment land: land owned by the United States in trust for one or more individual Tribal members. Allotments may not be within a reservation's boundaries and may not be affiliated with a Tribe.

Assignment land: a contract or agreement that transfers any rights for the use of Tribal lands to Tribal members of wholly owned Tribal corporations, assigned by a Tribe according to Tribal laws or customs.

Checkerboarding: a situation in which land ownership is intermingled between two or more owners or statuses that fall under various state, federal, or state jurisdictions, resulting in a checkerboard pattern.

Community solar: a model of distributed solar energy deployment that allows customers to buy or lease part of a larger, off-site shared photovoltaic system and receive benefits of their participation.

Cooperative: a utility cooperative delivers a public utility (such as electricity or water) to its members. Profits are reinvested or distributed to members.

Distributed energy resource: small, modular, energy generation and storage technologies that provide electric capacity or energy when needed.

Glossary Continued

Distributed generation: a variety of technologies that generate electricity at or near where it will be used.

Fee land (also fee simple land): land previously conveyed out of Tribal ownership that are freely alienable or can be encumbered without federal approval. Fee land may be owned by non-Indians or may be repurchased and owned by a Tribe or individual Tribal members. Tribally owned fee land does not have the same restrictions that trust lands have. Fee lands may be within or outside the reservation. Fee lands within the reservation may be owned by non-Indians. State and local laws typically apply on fee land outside reservations and may apply on fee land within reservations.

Helping Expedite and Advance Responsible Tribal Home Ownership (HEARTH) Act (2012): The HEARTH Act established a new land-leasing process for federally recognized Tribes and gives Tribes the authority to administer their own leases of Indian trust land for a variety of purposes, including solar energy project development. The Secretary of the Interior reviews and approves the Tribe's leasing regulations and environmental review process; following such approval, the Tribe may negotiate and enter into leases without further Secretarial approvals. These leases can include land for solar projects (for up to a 25-year term).

Glossary Continued

Indian Country includes:

“(a) all land within the limits of any Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent, and including rights of way running through the reservation,

(b) all dependent Indian communities within the borders of the United States whether within the original or subsequently acquired territory thereof, and whether within or without the limits of a state, and

(c) all Indian allotments, the Indian titles to which have not been extinguished, including rights of way running through the same (*Indian Country Defined*, 1948).”

Indian Reorganization Act (IRA) (1934): Also known as the Wheeler-Howard Act, this federal legislation was meant to increase Indian self-governance and responsibility while decreasing federal control of Tribal affairs. It includes Section 17, which allows the Secretary of the Interior to approve a charter of incorporation for a Tribal business.

Indian Tribal Energy Development and Self-Determination Act (ITEDSA) (2005): ITEDSA is a federal law that sets criteria for allowing Tribes to enter agreements and contracts for energy project development without having to go through the Secretary of Interior’s approval process, which would otherwise be required.

Investor-owned utility: corporation owned by investors and is engaged in distributing either electric or natural gas (or both) to more than one retail customer.

Glossary Continued

Midcontinent Independent System Operator (MISO): an independent, nonprofit, member-based organization responsible for operating the power grid across 15 U.S. states and the Canadian province of Manitoba.

Municipal utility (also “municipality” or “muni”): Municipal utilities are owned and operated by local communities.

Net metering: allows utility customers with distributed generation to offset the electricity they draw from the grid throughout the billing cycle. The customer pays for the net energy consumed from the utility grid.

Restricted fee land: land to which a Tribe or individual Tribal member holds legal title, but the title is subject to restrictions by the United States against alienation or encumbrance.

Section 17 corporation: a federally chartered business formed under Section 17 of the Indian Reorganization Act. Allows the Tribe to create business entities with assets and liabilities separate from the Tribal government. The corporation is entitled to sovereign immunity.

Sovereign immunity: a limitation against bringing suit against a sovereign government. Sovereign immunity, typically, must be explicitly waived.

Glossary Continued

Sue-and-be-sued clause: Some Section 17 corporate charters contain a “sue-and-be-sued clause,” which allows the corporation (not the Tribe) to be sued. Some courts have ruled this clause waives sovereign immunity; others have ruled the clause does not waive immunity unless that intent is explicit. More recent “form” charters created by the Bureau of Indian Affairs remove the sue-and-be-sued clause, making sovereign immunity.

Tribal Energy Resource Agreements (TERA): an agreement created by a Tribe and approved by the U.S. Department of the Interior. A TERA grants authority to the Tribe to review and approve specified projects and manage leases, business agreements, and rights of way for energy development on Tribal lands.

Tribal sovereignty: the inherent right of Tribes to govern themselves, their borders, lands, and people.

Tribal utility: A Tribe owns and operates electric systems on Tribal lands.

Trust land: The federal government acquires the property and holds it for the benefit of the Tribe. The use of trust land is governed by Tribes. The land is usually not subject to state laws; however, it is subject to certain federal and Tribal laws.

Glossary Continued

Virtual net metering: virtual net metering uses the same compensation and billing mechanisms as net metering but does not require that a customer's distributed generation system be located directly on-site. Net metering credits appear on a customer's bill as if the system were on their property.

Wind and solar resource (WSR) leases: leases that authorize use of Tribal land by non-Tribal entities for the purpose of installing, operating, and maintaining wind and solar electricity generation infrastructure.

Nonregulatory Barriers

Funding: Tribes often cited adequate funding as a barrier to solar development. Grant applications can be difficult if the grant requires cash-on-hand or in-kind contributions. Projects are often grant-funded, but the activities covered by the grant may be limited. In addition, grant terms may be misaligned with utility rules, or deadlines are incompatible with utility requirements.

Relationship building: Identifying the “right people” within a Tribe can be difficult for utilities. In addition, Tribes noted that finding the “right people” within a utility can be difficult.

Tribal technical capacity: During discussions, many Tribes highlighted a lack of necessary technical capacity within Tribal staff to pursue solar projects. For example, many Tribes are served by multiple utilities, and the Tribe may not have the capacity to navigate the different utility rules and regulations.

Tribal staff capacity: Many Tribes noted they are short-staffed. Therefore, they do not have the time to navigate the solar development process.

Addressing Regulatory Challenges to Tribal Solar Deployment

Full Guidebook

Beshilas, Laura, Scott Belding, Karin Wadsack, Elizabeth Weber, M.J. Anderson, Kelsey Dillon, Sara Drescher, Jake Glavin, and Reuben Martinez. 2023. *Addressing Regulatory Challenges to Tribal Solar Deployment*. Golden, CO: National Renewable Energy Laboratory. NREL/TP-7A40-85741.

<https://www.nrel.gov/docs/fy23osti/85741.pdf>.

Key Findings Report

Beshilas, Laura. 2023. *Addressing Regulatory Challenges to Tribal Solar Deployment: Key Findings*. Golden, CO: National Renewable Energy Laboratory. NREL/TP-7A40-85723.

<https://www.nrel.gov/docs/fy23osti/85723.pdf>

Thank you!

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NREL/PR-7A40-86047

This work was authored in part 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 Energy Efficiency and Renewable Energy Solar Energy Technologies Office. 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.

