

DOE OFFICE OF INDIAN ENERGY

Finance: Securing Funding for Tribal Programs

Lizana Pierce, Senior Engineer and Program Manager



U.S. DEPARTMENT OF
ENERGY

Office of
Indian Energy

September 8, 2016

Strengthening Tribal Communities Sustaining Future Generations



The DOE Office of Indian Energy is charged by Congress under the Indian Tribal Energy Development and Self Determination Act of 2005 (Energy Policy Act of 2005 (EPAct 2005), Title V, codified at 42 USC § 15801) to “provide, direct, foster, coordinate, and implement energy planning, education, management, conservation, and delivery programs that –

- (1) promote Indian tribal energy development, efficiency, and use;
- (2) reduce or stabilize energy costs;
- (3) enhance and strengthen Indian tribal energy and economic infrastructure relating to natural resource development and electrification; and
- (4) bring electrical power and service to Indian land and the homes of tribal members located on Indian lands or acquired, constructed, or improved (in whole or in part) with Federal funds.

MISSION

To maximize the development and deployment of energy solutions for the benefit of American Indians and Alaska Natives.

VISION

To be the premier federal office for providing tribal communities and Alaska Native villages with the knowledge, skills, and resources needed to implement successful strategic energy solutions.



Rosebud Sioux's (SD) Little Soldier Turbine (First 750 kW Turbine on Tribal Lands in contiguous U.S.)

Project Scale

Facility-Scale

Single building system
Primary purpose: offset
building energy use



Rosebud Sioux tribe (SD) Low-income residential system (August 2016)

Community-Scale

Multiple buildings
Primary purpose: offset
community energy costs,
energy self-sufficiency



Chaninik Wind Group (AK)
Thermal heating using Wind
energy (November 2012)

Commercial-Scale

Stand-alone project
Primary purpose: sale
of power generation,
financial benefits



Moapa Band of Paiute Indians
(NV) 250 MW utility-scale solar
system (2016)

Project-Scale

	Facility	Community	Commercial
Definition	Project serves one tribal facility/building	Project serves more than one tribal facility/building	Project power is sold to a third-party off-taker
Value Proposition	Save \$\$, reduce electricity cost, energy independence	Save \$\$, reduce electricity cost, energy independence	Sale of power at competitive market terms whereby Tribe benefits
Success Measurement	Cost avoidance	Cost avoidance	Revenue
Cost of Energy Comparison	Retail electricity price	Retail electricity price	Wholesale electricity price
Transmission or Distribution	Distribution needed for local generation and use - net metering agreements	Distribution needed for local generation and use - net metering agreements	Transmission capacity required to transport to market
Key Decision Point	Savings/security of supply	Savings/security of supply	Revenue streams



Roles, Opportunities & Risks

Role	Opportunity	Constraints	Comments
Resource/ Land Owner	Land rent/royalty, taxes.	Limited project control. Must provide site access.	Limited upside potential, limited risk
Off-taker/ Energy User	Only pay if project becomes operational; security.	Requires long-term commitment.	Still requires utility interconnection agreement. Med risk.
Project Operator/ O&M	Control and self-determination of project; potential for profits (and losses) is minimal	<ul style="list-style-type: none"> • Investors require experience • Only consider as a new business (act as operator for multiple projects in a portfolio) 	<ul style="list-style-type: none"> • High risk, complex • Tribes might consider outsourcing
Lender/ Debt Provider	Help finance a project (e.g., cash or New Market Tax Credit (NMTC), or Qualified Energy Conservation Bonds (QECBs)) with lower risk	<ul style="list-style-type: none"> • Requires ready capital • May be cost-prohibitive to document and manage a single debt transaction (multiple more cost-effective) 	<ul style="list-style-type: none"> • Med-risk, more complex • Requires lending knowledge • Option for Tribes with limited lands, lots of \$
Equity Investor/ Gen. Owner	Provide cash, NMTC or QECB for project development.	Higher risk than debt lending. Requires ready capital, or unique source of capital that provides market advantage (like NMTC).	<ul style="list-style-type: none"> • High risk, more complex • Competes with other investments • Option for Tribes with limited lands, lots of \$
Project Developer	Self-determination of project; potential for profits (and losses) is highest. Tribes with cash on hand don't need investors, but could still consider engaging tax equity partners.	<ul style="list-style-type: none"> • Investors require experience • Only consider as a new business (act as developer for multiple projects in a diverse portfolio) • Tribes investing money may not want this high risk/return investment 	<ul style="list-style-type: none"> • High risk, complex • Tribes may be best served by outsourcing • A project pipeline/portfolio mitigates some risks

Ownership Structures & Sources of Capital

Resource/ Land Owner

- **Ownership Structure**
 - Land lease/royalty structure
 - Low risk, known income
- **Sources of Capital**
 - Third-party financed
 - Receive land rent



Moapa Band of Paiute Indians (NV) 250 MW utility-scale solar system (2016)



Campo Band of Mission Indians (CA) 50 MW Kumeyaay Wind Farm (2006)



Ownership Structures & Sources of Capital

Power Purchase Agreement (PPA)

- **Ownership Structure**

- Land lease/royalty structure
- Third party purchase power or tribal power purchase agreement (potential future project purchase)

- **Sources of Capital**

- Third-party financed
- Receive land rent



Fire Island Wind LLC (AK) owns and operates a 17.6 megawatt wind turbine project on Fire Island.

Through its parent company, Cook Inlet Region, Inc. (CIRI), Fire Island Wind entered into a 25 year power purchase agreement with Anchorage utility Chugach Electric Association.



Ownership Structures & Sources of Capital

Direct Ownership

- **Ownership Structure**

- High potential for profits (and losses)
- Typically unable to capture tax incentives

- **Sources of Capital**

- Cash (self-fund)
- Bank debt (loan)/Loan guarantee
- Incentives/rebates
- Grants



Soboba Band of Luiseño Indians (CA) 1 MW solar installation (July 2016)



Menominee Tribal Enterprise (WI) Biomass CHP (April 2016)

Ownership Structures & Sources of Capital

Equity Investment Partnering

- **Ownership Structure**

- Partnership flip
- Sale leaseback
- Inverted lease/lease pass-through

- **Sources of Capital**

- Developer equity
- Bank debt (loan)/Loan guarantee
- Tax equity
- Incentives/rebates
- Grants



Forest County Potawatomi Community (WI) 922.95 kW community solar project. A 447.64 kW installed on the Potawatomi Bingo Casino in Milwaukee (shown right) and 22 kW installed in the Tribe's Land and Natural Resource building in Crandon (shown above)

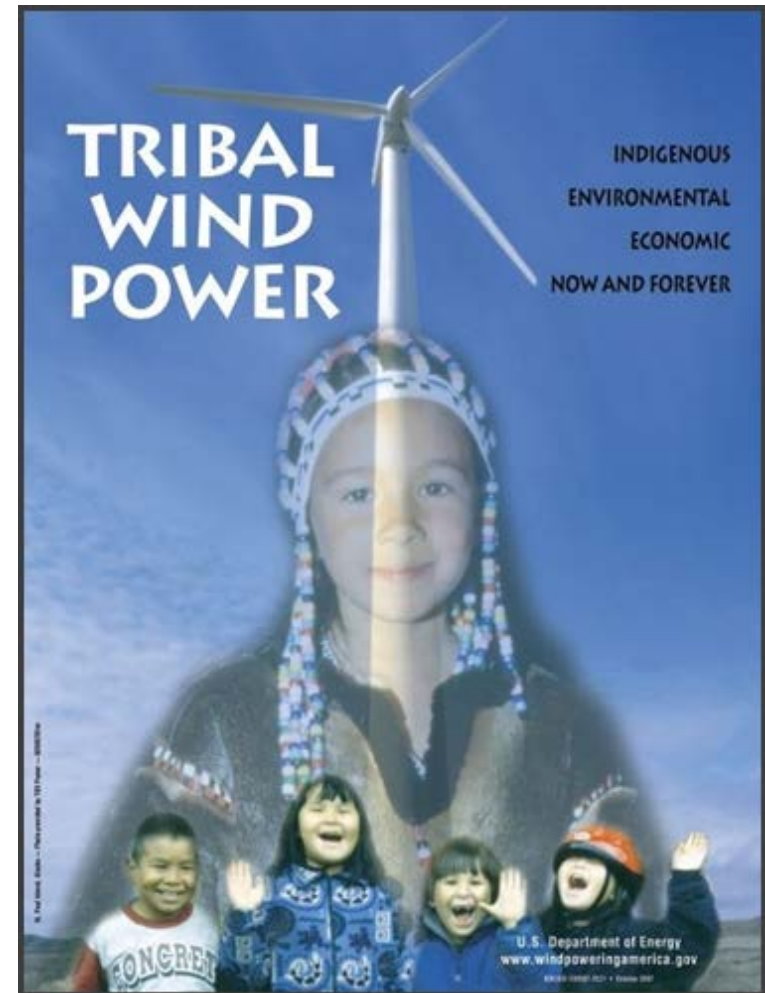


Resources

- Funding
- Funding Resources
- Technical Assistance
- Information Resources
- Workshops & Webinars



<http://energy.gov/indianenergy>



Providing Financial Assistance

Providing financial assistance to Tribes for the evaluation, development, and deployment of renewable energy resources and energy efficiency on Tribal lands

Eligibility Applicants:

- 1) Federally-recognized Tribes including Alaska Native villages, Regional Corporations, and village corporations,
- 2) Tribal Energy Resource Development Organizations, and
- 3) Tribal Consortia (two or more entities, at least one of which is an Indian Tribe and the application is submitted by an Indian Tribe on behalf of the Consortia).

In some cases, “**Tribal Organizations**” or “**Inter-tribal Organizations**” may apply on behalf of an Indian Tribe, provided evidence of authority from the eligible Indian Tribe is provided.

Funding

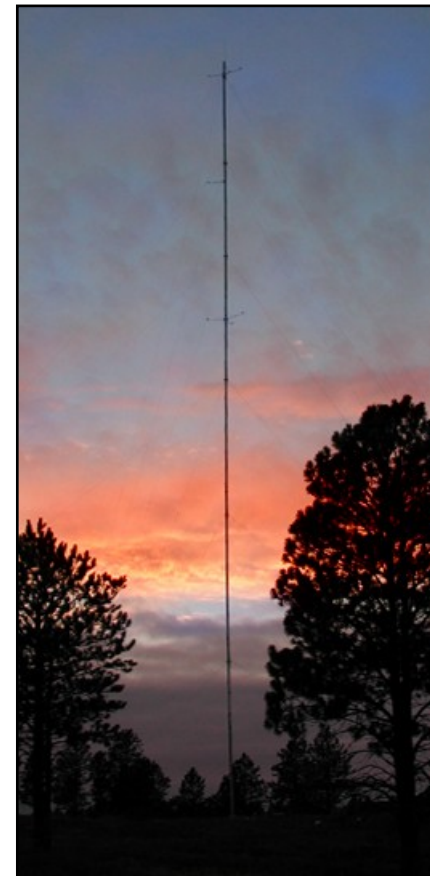
First Steps Toward Developing Renewable Energy and Energy Efficiency on Tribal Lands Grant (DE-FOA-0001621): Closes October 20

DOE's Office of Indian energy is accepting applications for up to \$3 million to initiate the first steps toward developing and sustaining renewable energy and energy efficiency on tribal lands, under the following Topic Areas:

- 1) Conduct energy options analyses
- 2) Establish baseline energy use and efficiency options
- 3) Develop energy organizations
- 4) Conduct climate resiliency planning
- 5) Establish policy, regulations, and codes to reduce energy use or promote energy development
- 6) Obtain skills and training related to energy use and development.

Eligible applicants include Indian tribes, including Alaska Native villages, Alaska Native Regional Corporations and Village Corporations, and Tribal Energy Resource Development Organizations.

<http://energy.gov/indianenergy>



Northern Cheyenne Tribe (MT)
Completed wind feasibility
(anemometer at sunset)

Funding

Financial Assistance to Spur Deployment in Indian Country

Deployment of Clean Energy and Energy Efficiency Projects on Indian Lands (DE-FOA-0001021)

- **Topic Area 1: Install clean energy and energy efficiency retrofit projects for tribal buildings**
 - Facility-scale
 - 15% of single energy source displaced
 - 10 kW minimum for clean energy systems only
- **Topic Area 2: Deploy clean energy systems on a community-scale**
 - Community-scale
 - 20% of all energy sources
 - 50 kW minimum



Solar arrays on home on the Navajo Nation

See Website for Past Funding Opportunity Announcements and Join Email List for Future Notifications

Assisting Tribes Achieve Their Energy Vision

Between 2010 -2016 DOE's Office of Indian Energy has funded the deployment of 43 renewable energy and energy efficiency projects valued at \$70M (DOE \$25M; Tribal contributions of \$45M).

- Electricity bills reduced for more than 2,500 tribal government and community buildings and more than 29,000 tribal members
- For every \$1 DOE funding for RE and EE projects results in \$7.22 savings for the tribes
- Annual Savings of DOE Office of Indian Energy projects will continue to save these 43 tribes between \$9M and \$11M annually and lifetime savings of a half a billion dollars.



Tonto Apache Tribe Solar photovoltaic systems installed on their government buildings (AZ)



Forest County Potawatomi Community(WI)
2-megawatt anaerobic digestion and biogas generation facility (May 2013)



Annual Program Review

Unique Tribal Forum for Sharing and Learning

- Forum for Tribes to meet and learn from other each other and to share their successes
- Networking & learning opportunity
- Forty to fifty (40-50) Tribal energy projects presented
- Typically ~200 participants



Register now!

November 14-17, 2016

Funding Resources

Energy Development Assistance Tool

Information for Tribes about federal grant, loan, and technical assistance programs available from more than 10 federal agencies to support energy development and deployment in Indian Country and Alaska Native villages

Current Funding Opportunities

List of open tribal energy related funding opportunities from federal agencies and other sources

Ongoing Opportunities

Links to ongoing technical assistance, grant, loan and loan guarantee programs

<http://energy.gov/indianenergy>

The screenshot shows the Energy.gov website with the following content:

- Header: ENERGY.GOV Office of Indian Energy Policy and Programs
- Navigation: TECHNICAL ASSISTANCE EDUCATION & TRAINING FUNDING PROJECTS ABOUT US OFFICES >
- Breadcrumbs: Home > Funding > Energy Development Assistance Tool
- Section: ENERGY DEVELOPMENT ASSISTANCE TOOL
- Text: The Energy Development Assistance tool provides information for Tribes about federal grant, loan, and technical assistance programs available from more than 10 federal agencies to support energy development and deployment in Indian Country and Alaska Native villages.
- Text: Sort information by type of assistance, eligibility, agency or office, program name, or project phase—from strategic energy planning to any one of the five steps in the project development and finance process—or search by keyword. The tool was developed by the White House Council on Native American Affairs Energy Subgroup. If you have questions, comments, or suggestions, contact us.
- Text: For upcoming deadlines, see the Funding page.
- Search: Search: [input field]
- SEARCH RESULTS: Showing 1 to 10 of 63 entries

PROGRAM	AGENCY	DESCRIPTION	TYPE OF ASSISTANCE	ELIGIBILITY	PHASE
504 Loan Program	Small Business Administration	Provides growing businesses with long-term, fixed-rate financing for major	Loan and loan guarantee programs	Federally recognized Tribes and tribal governments; Alaska Native and tribal	Project Potential; Project Implementation

- TYPE OF ASSISTANCE
 - Education and capacity building
 - Grants
 - Information resources
 - Loan and loan guarantee programs
 - Tax credits
 - Technical assistance
- ELIGIBILITY
 - Alaska Native and Village Corporations
 - Alaska Native villages
 - Federally recognized and tribal governments
 - State-recognized
 - Tribal energy resource development organizations
 - Tribal nonprofit organizations (503-(C)(3))

The screenshot shows the Energy.gov website with the following content:

- Header: ENERGY.GOV Office of Indian Energy Policy and Programs
- Navigation: TECHNICAL ASSISTANCE EDUCATION & TRAINING FUNDING PROJECTS ABOUT US
- Breadcrumbs: Home > Funding
- Section: FUNDING
- Text: Federal agencies, including the U.S. Department of Energy Office of Indian Energy, provide grant, loan, and technical assistance programs to support tribal energy projects. Find information about past funding opportunities.
- List:
 - Current Funding Opportunities
 - Ongoing Opportunities
- Section: CURRENT FUNDING OPPORTUNITIES

CLOSE DATE	ORGANIZATION	OPPORTUNITY
10/20/2016	U.S. Department of Energy Office of Indian Energy	First Steps Toward Developing Renewable Energy and Energy Efficiency on Tribal Lands The U.S. Department of Energy Office of Indian Energy is accepting applications for up to \$3 million to initiate the first steps toward developing and sustaining renewable energy and energy efficiency on tribal lands, under the following Topic Areas: <ol style="list-style-type: none">1. Conduct energy options analyses2. Establish baseline energy use and efficiency options3. Develop energy organizations4. Conduct climate resiliency planning5. Establish policy, regulations, and codes to reduce energy use or promote energy development6. Obtain skills and training related to energy use and development. Eligible applicants include Indian tribes, including Alaska Native villages, Alaska Native Regional Corporations and Village Corporations, and Tribal Energy Resource Development Organizations.

Technical Assistance

On-request Technical Assistance

Technical assistance is to address a specific challenge or fulfill a need that is essential to a current project's successful implementation. The intended result of this technical assistance is a tangible product or specific deliverable designed to help move a project forward. Types include:

- Energy Planning
- Housing and Building Energy Efficiency
- Project Development
- Climate Resilience
- Village Power
- Policy and Regulation

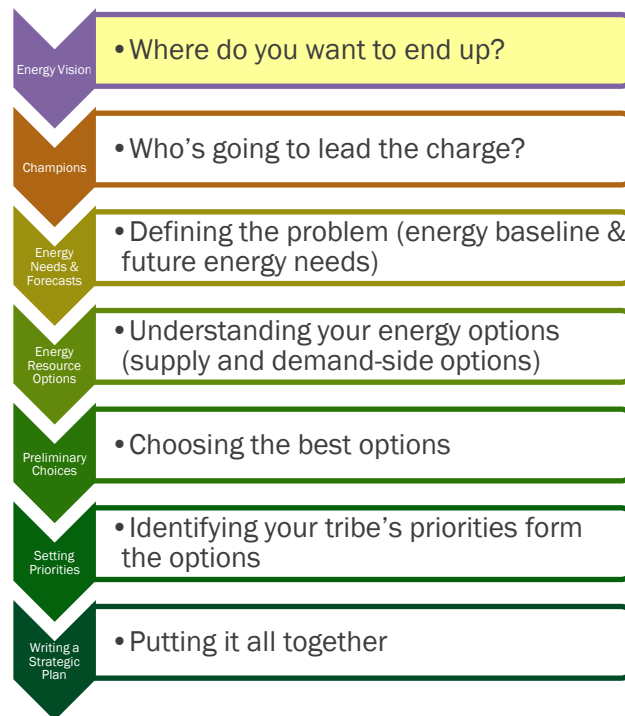
Strategic Technical Assistance Response Team (START) Program

Competitive technical assistance program to assist in the development of tribal renewable energy projects.

<http://energy.gov/indianenergy>



Strategic Energy Planning



Resources

Information Resources

– Energy Resource Library

Provides links to helpful resources for tribes on energy project development and financing on tribal lands. The library includes links to topically relevant publications, websites, videos, and more.

– Curriculum Foundational and Advanced Courses

Educational webinars on strategic energy planning, project development, resources technologies, and advance concepts such as business structures and financing

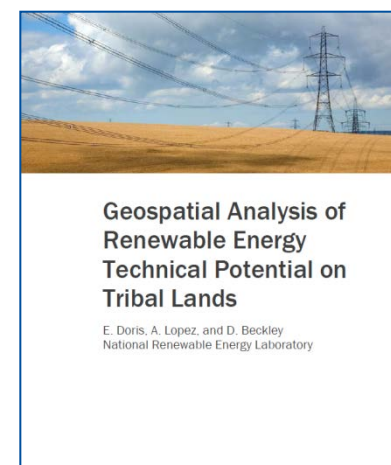
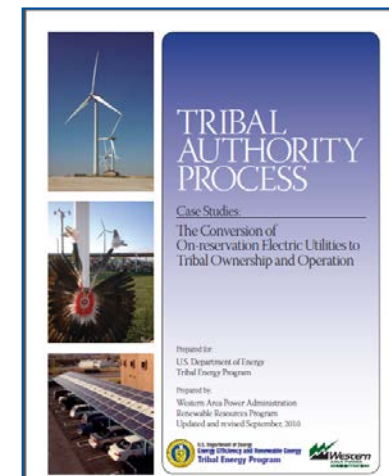
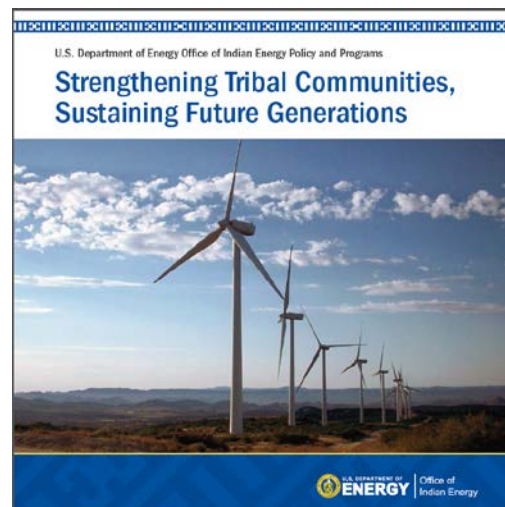
Workshops & Webinars

– Monthly Webinars

Technical assistance is to address a specific challenge or fulfill a need that is essential to a current project's successful implementation. The intended result of this technical

– Periodic Workshops

Workshop on specific topics



<http://energy.gov/indianenergy>

Assisting Tribes Achieve Their Energy Vision



Rosebud Sioux's (SD) Little Soldier Turbine
First 750 kW Turbine on Tribal Lands in the Contiguous U.S.



Solar arrays on **Navajo** home (AZ)



Solar Installations at **Pueblo of Laguna's** Majors Ranch (NM)

A 6kW PV System at **SIPI's** Science and Technology Building (NM)



Jicarilla Apache Reservation PV array on Dulce High School (NM)



Questions?

Lizana Pierce, Program Manager
Tribal Energy Deployment Program
U. S. Department of Energy
Office of Indian Energy

Telephone: (720) 356-1749

Email: lizana.pierce@ee.doe.gov

Program Helpdesk

Telephone: (720) 356-1352

Email: tribal@ee.doe.gov



To receive periodic email information
“Get Our Email Updates” at
<http://energy.gov/indianenergy>