

U.S. DEPARTMENT OF ENERGY OFFICE OF ENERGY EFFICIENCY AND RENEWABLE ENERGY

DOE's Tribal Energy Program



Tribal Energy by Design August 19, 2014 Browning, Montana

Lizana Pierce, Project Manager



Purpose

Promote Tribal energy sufficiency, and foster economic development and employment on Tribal lands through the use of renewable energy and energy efficiency technologies.



In cooperation with DOE's Office of Indian Energy Policy and Programs, the Tribal Energy Program provides financial and technical assistance to Tribes to develop their renewable energy resources and reduce their energy consumption.





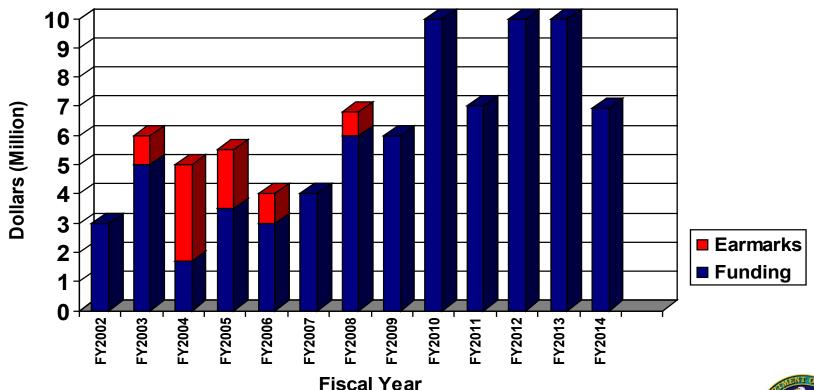
Mission



Offering financial and technical assistance to Tribes through government-to-government partnerships that:

- 1) Enable Tribal leaders to make informed decisions about energy choices;
- 2) Bring renewable energy and energy efficiency options to Indian Country;
- 3) Enhance human capacity through education and training;
- 4) Improve local Tribal economies and the environment; and
- 5) Make a difference in the quality of life of American Indians and Alaska Natives.

Program Funding History



Averages ~\$6.0 million per year





Tribal Energy Program Funding*

	FY2011	FY2012	FY2013	FY2014	FY2015
DOE Request	\$10.0	\$10.0	\$10.0	\$7.0	\$0.0
Appropriated Funds	\$7.0	\$10.0	\$9.42	\$6.9	TBD

Per the President's FY2015 Budget Request, \$0 million requested for Tribal Energy Program

Per the Request, "The Tribal Energy Program and its activities......is proposed for consolidation into the Office of Indian Energy Policy and Programs."

^{*} Amounts in Millions

Three Pronged Approach

Financial

Assistance

Success through
Government-toGovernment
Partnerships

Technical

Assistance

Leveraged through Intergovernmental Coordination

Leveraged through Information & Education

Leveraged with Intragovernmental Coordination

Three Pronged Approach

Financial

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Technical

Assistance

Leveraged through Intergovernmental Coordination

Leveraged through Information & Education

Leveraged with Intragovernmental Coordination

Providing Financial Assistance

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

Eligibility:

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



<u>Tribal Lands</u> include Indian reservations; Public domain Indian allotments; Former Indian reservations in Oklahoma; Land held by under the provisions of the Alaska Native Claims Settlement Act (43 U.S.C. 1601 et seq.); and Lands held in fee simple or under a long-term Federal land lease.

All Funds Awarded through a Competitive Process

FY2014 Financial Assistance

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

- Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits (Facility-scale);
 - a) Clean energy systems (renewable energy or combined heat and power systems) to displace electrical, heating and/or cooling loads (15% displacement, 10 kW); and/or
 - b) "Deep energy retrofit" measures to reduce the **total** of <u>all</u> energy used in a building or buildings (20% reduction)
- Topic Area 2: Deploy clean energy systems on a community-scale (50 kW minimum).



Solar arrays on home on the **Navajo Nation**

All documents posted on EERE Exchange website Send questions to tribal@ee.doe.gov



Means of Submission	Applications <u>must</u> be submitted through EERE Exchange at https://eere-exchange.energy.gov , EERE's online Application portal. EERE will not review or consider Applications submitted through other means. The Users' Guide for Applying to the Department of Energy EERE Funding Opportunity Announcements is found at https://eere-Exchange.energy.gov/Manuals.aspx .
Total Amount to be Awarded	Approximately \$4 to \$7 million
Average Award Amount	EERE anticipates making awards that range from \$50,000 to \$500,000 for Topic Area 1 (Tribal Building Clean Energy and Energy Efficiency Retrofits) and from \$250,000 to \$1,000,000 for Topic Area 2 (Community-Scale Clean Energy Deployment).
Types of Funding Agreements	Grants
Period of Performance	1 to 2 years, but no longer than 3 years including the energy savings verification period.



Eligible Applicants	Subject to the definitions and requirements in Section III.A, Indian Tribes (including Alaska Native regional and village corporations), Tribal Energy Resource Development Organizations, or Tribal Consortium (group of organizations, one of which is an eligible Indian Tribe who submits the Application on behalf of the consortium). Applications from a consortium of Indian Tribes will be accepted but must be submitted by a single Indian Tribe acting as the Applicant representing the Consortium. Applications may also be submitted on behalf of an Indian Tribe(s) by an authorized Tribal Organization or Inter-tribal Organization, provided evidence of that authority is supplied as part of the Application (see Section III.A for requirements and definitions).
Cost Share Requirement	50% of Total Project Costs (100% match against EERE funds), unless an Applicant requests a reduction in the cost share as part of the Application and receives approval from EERE. Cost share reduction requests of less than 10% will not be considered. If EERE does not grant a request for reduced cost share, the Applicant will be required to meet the requisite 50% cost share. See Section III.B.7 for the content of cost share reduction requests and the criteria by which they will be reviewed.





Submission of Multiple Applications	Applicants may submit more than one Application to this FOA or under a Topic Area, provided that each Application is for a unique and distinct project.
Application Forms	Required forms and templates for Applications are available on EERE Exchange at https://eere-Exchange.energy.gov .
FOA Summary	Under this FOA, EERE is soliciting Applications from Indian Tribes, Tribal Energy Resource Development Organizations and Tribal Consortia to: (1) install clean energy and energy efficiency retrofits projects for tribal buildings; and (2) to deploy clean energy systems on a community-scale on Indian Lands (see Section III.A for eligibility definitions).

See Frequently Asked Questions (FAQS) on EERE Exchange





FOA Issue Date:	07/16/2014
Informational Webinar	08/14/2014 at 1:00 PM Eastern Time
Submission Deadline for Applications:	10/02/2014 at 5:00 PM Eastern Time
Expected Date for EERE Selection Notifications:	01/09/2015
Expected Timeframe for Award Negotiations	04/30/2015



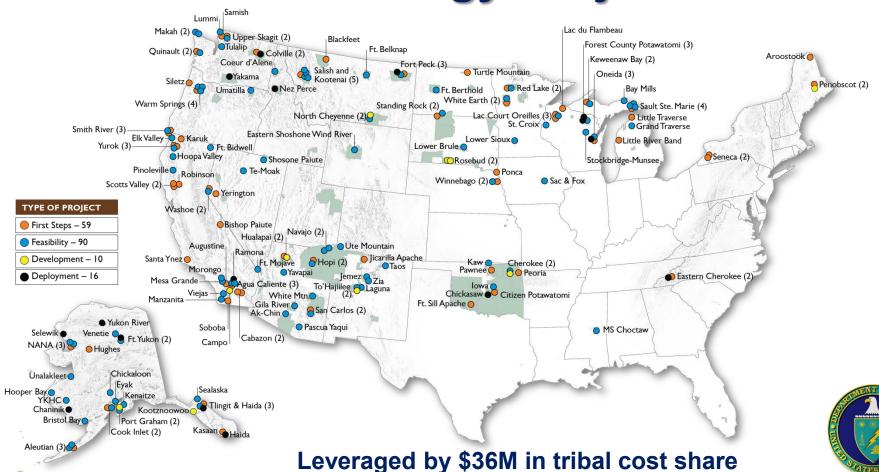
Competitive Process (2002-2013)

Accomplishments *

- 17 Funding Opportunities Announcements issued
- Total of 610 applications accepted (valued at \$316 million)
- 84.8% of meritorious applications funded (Total of 184 of 217)
- Funded 30.2% of all applications received (using multi-year funds)
 DOE average is ~5 to 10%.
- Funded 126 Different Tribes (22.2% of the 566 Tribes)



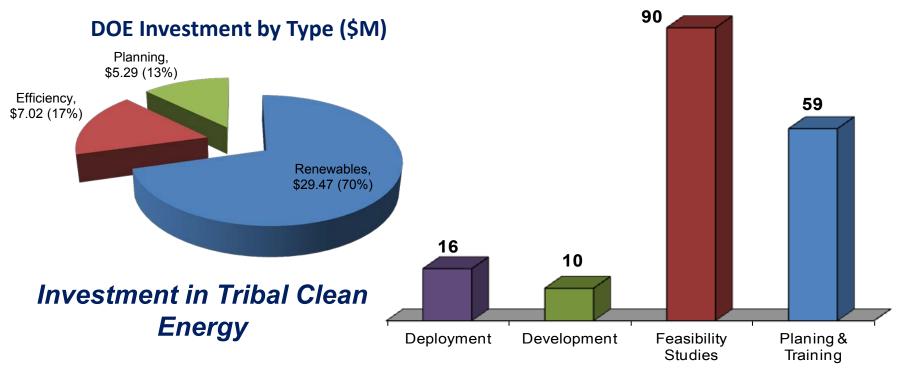
DOE has Invested \$41.8 Million in 175 Tribal Energy Projects (2002-2012)





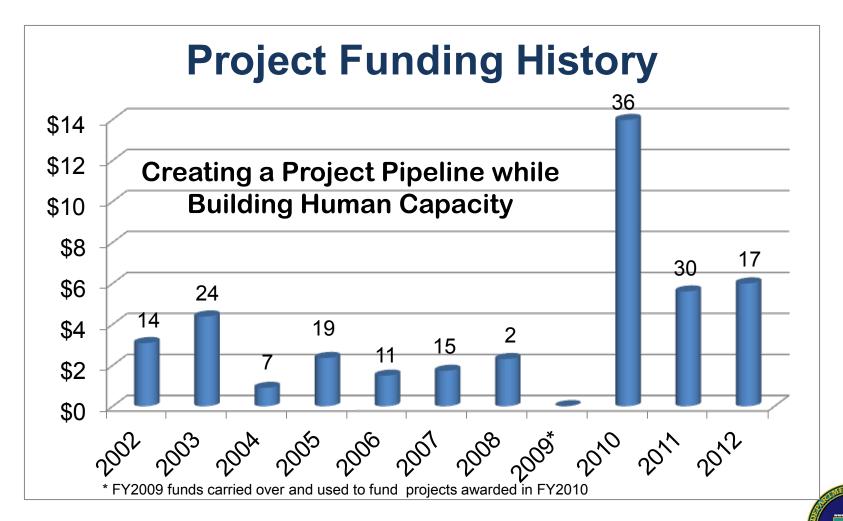
Tribal Energy Project Pipeline

DOE'S Investment of \$41.8 Million in 175 Tribal Energy Projects (2002-2012)



Funded 22.2% of All Tribes (2002-2013)





Investment in Tribal Energy Sufficiency

Highlighted during the 2013 White House Tribal Nations Conference

Awards Pending for Nine Tribal Energy Projects Valued at more than \$7 Million

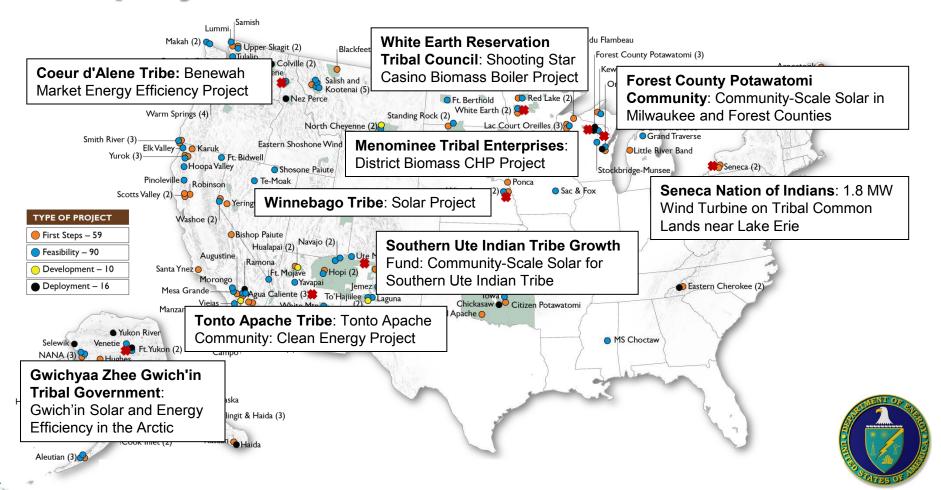
"As part of the Obama Administrations commitment to strengthening partnerships with Tribal nations and building stronger, more

resilient Communities that are better prepared for a changing climate, the Energy Department announced nine tribal clean energy projects to receive more than \$7 million."





Awards pending for nine Tribal energy projects valued at more than \$7 million



Montana Tribe's Energy Projects (2002-2012)

Search Help ▶

HOME

PROJECTS

EDUCATION & TRAINING

CLEAN ENERGY DEVELOPMENT GUIDE TECHNICAL ASSISTANCE FINANCIAL OPPORTUNITIES

INFORMATION RESOURCES

EERE » Tribal Energy Program » Projects

ABOUT



By State

By Tribe

By Technology

By Award Year

By Project Type

Funding History

Quick Links

- Funding Opportunities
- Upcoming Trainings
- · Email Updates
- Help Desk

Projects in Montana

This page lists energy-related projects in Montana funded by the Tribal Energy Program.

- Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation 2010
- Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation 2005
- Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation 2003
- Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation 1994
- Blackfeet Tribe 2006
- · Blackfeet Tribe 1995
- Blackfeet Tribe 1994
- Crow Indian Tribe 1995
- · Fort Belknap Indian Community 2006
- Northern Cheyenne Tribe 2003
- Northern Cheyenne Tribe 2002
- · Salish and Kootenai Tribes, Confederated Tribes of the Flathead Reservation 2012
- · Salish and Kootenai Tribes, Confederated Tribes of the Flathead Reservation 2011
- Salish and Kootenai Tribes, Confederated Tribes of the Flathead Reservation 2011
- Salish and Kootenai Tribes, Confederated Tribes of the Flathead Reservation S&K Holding Company 2007
- Salish and Kootenai Tribes, Confederated Tribes of the Flathead Reservation S&K Holding Company 2004

Assisting Tribes Fulfill Their Energy Vision





Return on DOE's \$41.8 Million Investment

- Over 800 MW of potential new renewable energy generation under development
- Over 4,000 MW of tribal renewable energy resources being assessed
- Over 1.7 million square feet of tribal buildings (67) retrofitted for a savings of over \$3 million per year
- Energy audits completed on over 250 tribal buildings
- Over 170 tribal members training as part of these tribal energy projects



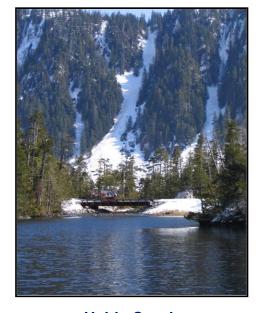
Renewable Energy Deployment in Indian Country

Renewable Energy <u>Deployment</u> Projects (Continued)



Chaninik Wind Group's
Thermal Heating Project (AK)





Haida Corp's
Reynolds Creek 5MW Hydro
Project in Angoon (AK)





Deployment to Save Energy for the Future

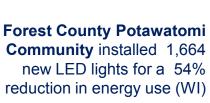
Building Retrofit (Deployment) Projects



Lighting upgrades could save the **Chickasaw Nation** (OK) \$180,000 per year













Renewable Energy Development

Renewable Energy <u>Development</u> Projects

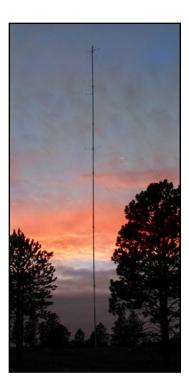


Campo Band's Wind Farm DOE funding Phase II (160 MW)

Hualapai (AZ) Exploring "large-scale" solar and wind development



Northern Cheyenne Tribe completed wind feasibility study and began pursuing wind 30MW wind farm (anemometer at sunset, MT)



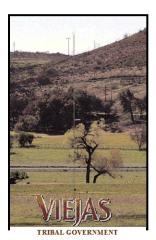


Rosebud Sioux's (SD) Little Soldier Turbine - Pursuing a 30 MW and 190 MW Wind Farm

Project Accomplishments

Assessing Indigenous Resources

Renewable Energy <u>Feasibility</u> Studies



Viejas Tribal Government Tribal Utility and Wind Study (CA)

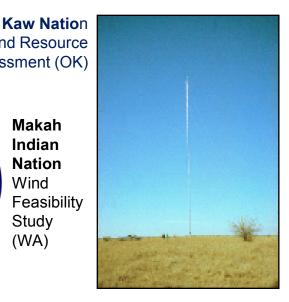
Pueblo of Jemez Geothermal Feasibility Study (NM)



Wind Resource Assessment (OK)



Makah Indian **Nation** Wind Feasibility Study (WA)



St. Croix Chippewa **Biomass** Study (WI)

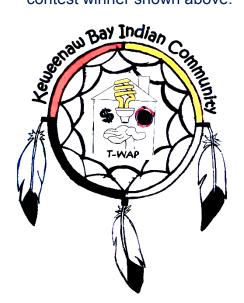


Three Affiliated Tribes Wind Feasibility Study (ND)

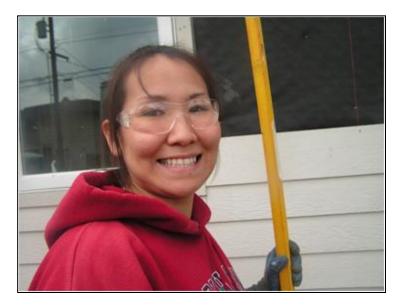
Building Local Skills and Knowledge

Over 170 Tribal Members Trained

Keweenaw Indian Community trained members in weatherization: 9 energy auditors; 8 envelop professionals; and 38 air sealing insulation installers. Logo contest winner shown above.

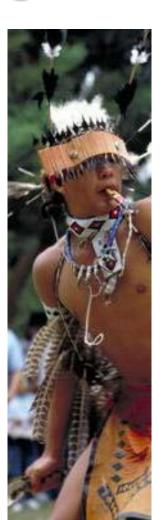


Cook Inlet Tribal Council training two apprentices in weatherization (4,000 hour program). Apprentices to graduate February 2012 and be hired to serve local communities.



Scotts Valley Band partnered with 12 Tribes in Lake and Mendocino Counties to build local capacity through education and training.

Twenty-three members trained and 3 hired by the Tribes.





DOE's Tribal Energy Program Three Pronged Approach

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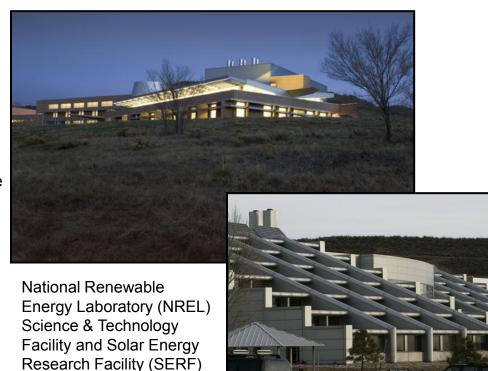
Providing Technical Assistance

Types of Technical Assistance

- Strategic Energy Planning
 Consists of an on-site workshop
- 2) Project Development Support

Consists of expert guidance and analysis that helps address specific barriers Tribes face while developing a clean energy project.





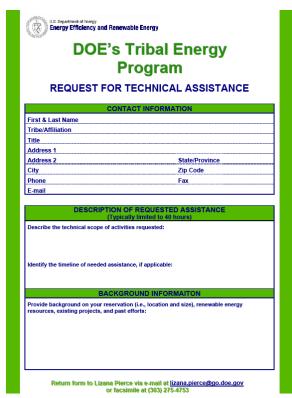


Assisting Tribes with expertise from DOE's National Laboratories and Other Providers



Technical Assistance Requests for Tribes

- ➤ Offered within <u>available resources</u>
- The application process is a quick and easy on-line process
- ➤ The value of technical assistance for Tribes is typically limited to 40 hours and may include, but is not limited to, renewable energy technology information, renewable resource information, energy efficiency techniques, project support, system performance modeling, policy information, design review, special studies, strategic energy planning, prefeasibility transmission studies, and training.







Technical Assistance

On-site workshop designed to assist tribal leaders and tribal staff in understanding their resources, identifying their options, and developing a viable road map to successful completion of the project.

- 1) Yankton Sioux Tribe (February 2014)
- 2) Delaware Tribe (September 2013)
- 3) Menominee Tribe (August 2013)
- 4) Klamath Tribes (July 2013)
- 5) Crow Creek Housing Authority (March 2013)
- 6) Fort Belknap Indian Community (June 2012)

Additional Thirty-five (35) Strategic Energy Planning Sessions 2006-2011

Strategic Energy Planning

• Where do you want to end up? • Who's going to lead the charge? • Defining the problem (energy baseline & future energy needs) Understanding your energy options (supply and demand-side options) Choosing the best options • Identifying your tribe's priorities form the options Putting it all together





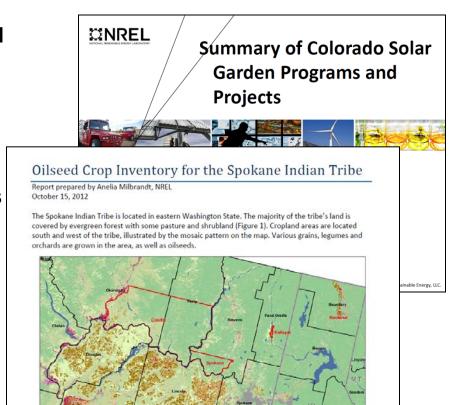
Technical Assistance

Project Development Support

Project development support consists of expert guidance and analysis that helps address specific barriers tribes face while developing a clean energy project.

Examples of project development technical assistance include:

- Third-party independent reviews of transmission studies, financing structures, lease agreements, project reports, etc.
- Objective advice grounded in research and real-world experience on technologies
- Modeling and analysis (or assistance in using available modeling/analysis tools)
- Pre-feasibility transmission studies
- Interconnection agreement facilitation
- Economic evaluations
- System design reviews
- Other specific studies or analysis, upon request





ADMINISTRATION

Tribal Energy Program



Assessment of Electric Power Service Options, Including Solar Applications, for the Moapa Travel Center

Pre-feasibility Transmission Studies

- 1) Moapa Band of Paiutes (June 2009)
- 2) Utu Utu Gwaitu Paiute Tribe (Sept 2009)
- Canoncito Band of Navajos, To'Hajiilee Chapter (March 2010)
- 4) Navajo Hopi Land Commission (May 2010)
- 5) Hualapai Tribe (July 2010)
- 6) Ute Mountain Ute Tribe (Feb 2011)
- 7) Chemehuevi Tribe (May 2013)
- 8) San Carlos Apache (May 2013)
- 9) Ione Band (November 2013)
- 10) San Ildefanso Pueblo (November 2013)
- 11) Nez Perce Tribe (December 2013)

Pre-Feasibility Assessment of Renewable Generation Applications, for NHLCO Paragon Ranch Solar

Pre-Feasibility Assessment of Renewable Generation
Applications,
For the Canoncito Band of Navajos (Tóhajiilee)

SAN ILDEFONSO PUEBLO



PRE-FEASIBILITY TRIBAL UTILITY REPORT NOVEMBER 22, 2013



DOE's Tribal Energy Program Three Pronged Approach

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Success through Government-to-Government

Partnerships

Leveraged through Intergovernmental Coordination

Information &

Education

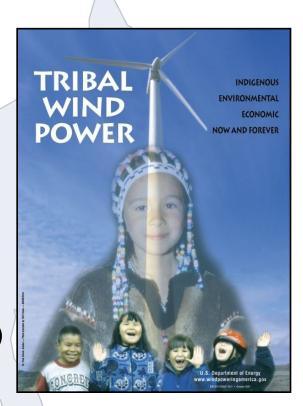
Technical

Assistance

Leveraged with Intragovernmental Coordination

Education & Training

- Annual Program Review
- National Workshops
- Tribe Specific or Regional Trainings
 - Upon Request and within available resources
- Student Internships
- On-line "Guide to Tribal Energy Development"
- On-line Short Courses (workshop material)
- Informational Resources (handbooks & guides)
- Webinars (real-time and archived)



Building Human Capacity in Indian Country



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





Upcoming Workshops

The Tribal Energy Program will present the following workshops this summer:

- Tribal Energy by Design: Developing an Energy Roadmap on Tribal Lands (August 19–20, 2014, Browning, Montana)
- Community and Facility-Scale Tribal Renewable Energy Project Development and Finance (August 21–22, Nome, Alaska)
- Community- and Facility-Scale Tribal Renewable Energy Project Development and Finance (August 26–28, 2014, Prior Lake, Minnesota





Monthly Tribal Energy Webinars

All webinars are held from 11 a.m. to 12:30 p.m. Mountain time

Date	Торіс
November 27, 2013	Resources Available for Tribal Energy Project Development
January 29, 2014	Renewable and Energy Efficiency Market Update
February 26, 2014	Strategic Energy Planning
April 2, 2014	Renewable Energy Project Development and Finance Framework: The Five-Step Process
April 23, 2014	Identifying Project Potential and Options
May 28, 2014	Renewable Energy Project Refinement
June 25, 2014	Net Metering
August 8, 2014	Project Implementation and O&M
August 27, 2014	Introduction to Facility- and Community-Scale Project Financing
September 10, 2014	Sandia Modeling Tool
September 24, 2014	Successful Project Financing Mechanisms: ESPCs and UESCs
October 29, 2014	Putting It All Together



Student Summer Internships

Applications

- Applications due each February
- 12 week internship at Sandia National Laboratories (NM)
- See TEP website for application form or "Join email list"

Immersion into Renewable Energy

- Interns gain hands-on experience on renewable energy systems
- Required to produce a research paper as part of the internship

Interns

Twenty-nine (29) interns sponsored since 2002

Contact

Sandra Begay-Campbell at (505) 844-5418 or skbegay@sandia.gov

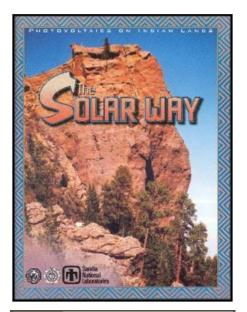
Student Papers & Testimonials Posted on TEP Website

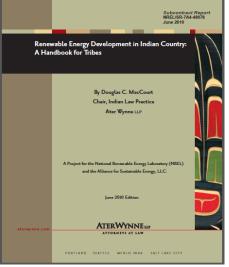
2008 Interns' participated in PV installation & training workshop (AZ-Hopi)



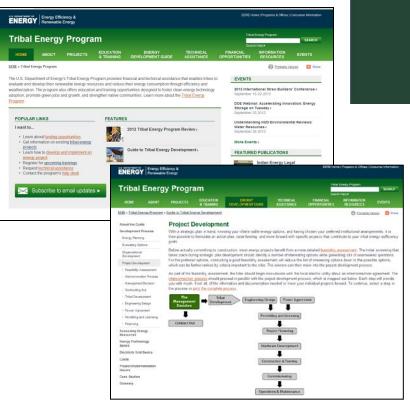
Deborah Tewa (certified electrician & solar installer) at Sandia's PV
Laboratory (2002)

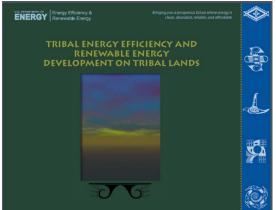


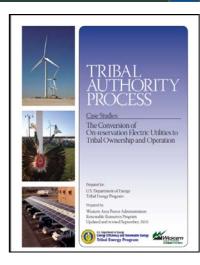




Information Resources









Informational Materials

Short Courses

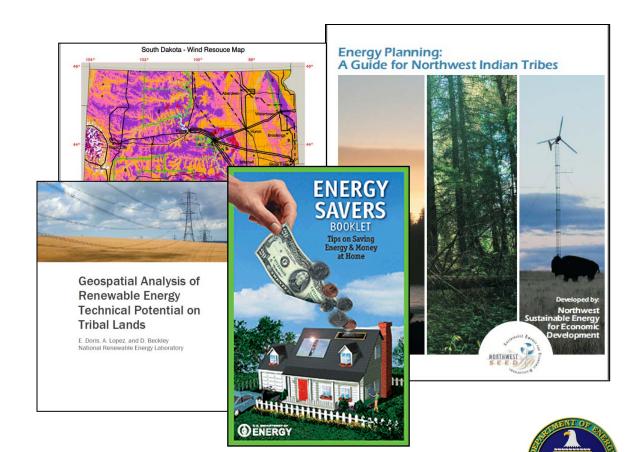
- Analysis & Economics
- · Business & Financing
- Community Development
- Demand-side Options
- Renewable Technologies

Handbooks & Guides

- · A Guide: Energy Planning
- Energy Consumption and Renewable Energy Development on Indian Lands
- A Handbook: Renewable Energy in Indian Country

Tools & Models

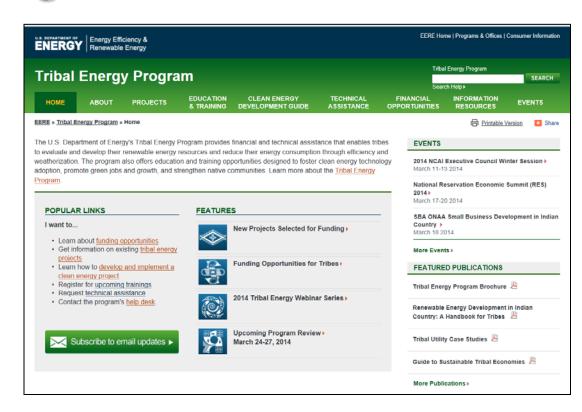
- Resource Potential Maps
- Reservation Specific Wind Maps





Program Website

- Features
- · Program Brochure
- Upcoming Events
- Short Courses
- Education & Training
- Funding Opportunities
- Projects on Tribal Lands
- Link to "Guide"
- Information Resources
- Join Email List
- Contacts



Providing a Clearinghouse of Information

www.eere.energy.gov/tribalenergy



Program Website

Projects on Tribal Lands

- Project Lists Sorted by
 - Tribe
 - Award Year
 - Award Type
 - Technology
- Project Map (List by State)
- Project Summaries
 - Overview
 - Scope
 - Location
 - Status
 - Presentations
 - Final Reports
 - Tribal Contacts





"Guide to Tribal Energy Development"

Development Process

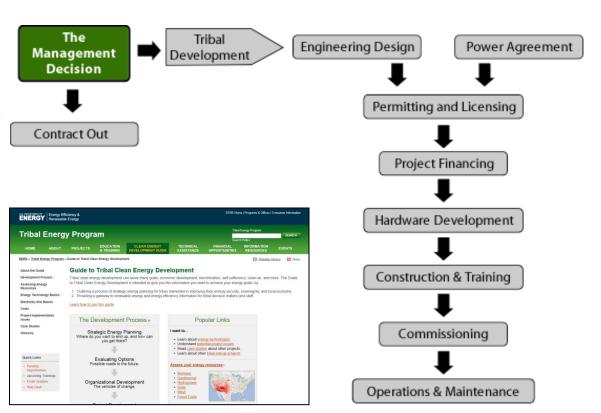
- Strategic Planning
- Options Analysis
- Organizational Development
- Project Development

Business & Financing

- · Short Courses
- Handbooks

Resource Library

- Energy Resources
- Technologies
- Costs
- Risk Factors
- Legal Issues
- Financing Options
- Contacts



Providing a Clearinghouse of Information

www.eere.energy.gov/tribalenergy/guide



Email Notices

As subscribers, Tribes receive email newsletters on:

- Training opportunities and upcoming events
- Funding opportunities through our program and other federal programs and agencies
- Other news and information related to Tribal energy.

Simple On-line Subscription

- Over 2,900 subscribers
- 100's of email notices sent each year
- Distributed through other Tribal and Agency listservs – Expanding distribution
- On-line inquiries available



Join Our Email List www.eere.energy.gov/tribalenergy



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, Project Manager

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U. S. Department of Energy
Office of Energy Efficiency and
Renewable Energy (EERE)

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To receive periodic email information "Join Our Email List" on-line at www.eere.energy.gov/tribalenergy



