# Financial, Technical and informational Resources

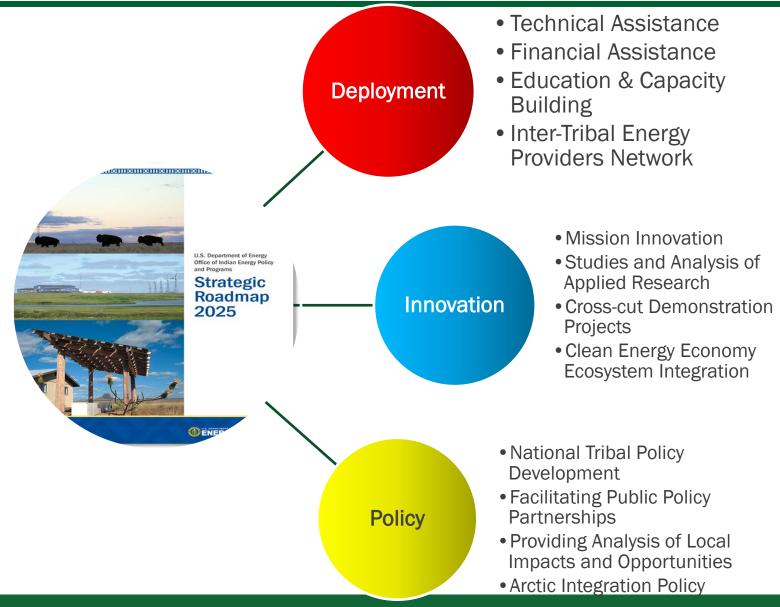
Douglas C. MacCourt Senior Policy Advisor, DOE Office of Indian Energy





DOE/DOI TRIBAL ENERGY WORKSHOP
National Renewable Energy Laboratory
Golden, Colorado
September 7, 2016

### 2016 Priorities



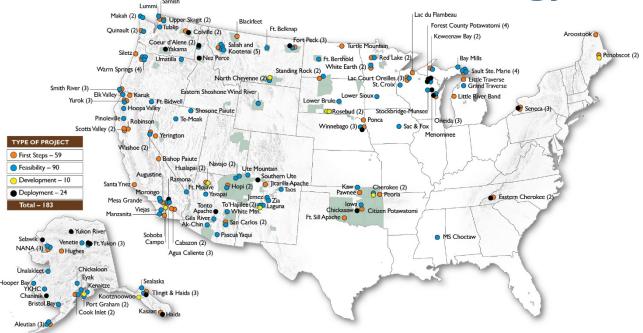


### II FY2015 - 2016 Accomplishments





### **DOE's Investment in Tribal Energy Projects**



DOE has invested \$48 million in 183 tribal clean energy projects valued at \$93.6 million (2002–2014). DOE's investments were leveraged by \$45.6 million in tribal cost-share. Tangible results of those shared investments include:

- Retrofitting 70 tribal buildings saving tribes more than 10 million kilowatt-hours of energy and \$2.5 million per year
- Completing energy audits on more than 250 tribal buildings
- Moving more than 580 MW of potential new renewable energy generation into development
- Supporting tribes and Alaska Native villages in assessing the potential for more than 4 gigawatts of new renewable energy generation

### Office of Indian Energy: FY 2017 Budget Request

#### **Dollars in Thousands**

	FY 2015 Enacted	FY 2015 Current	FY 2016 Enacted	FY 2017 Request	FY 2017 vs FY 2016
Office of Indian Energy Policy and Programs					
Program Direction	1,271	1,271	3,200	4,800	+1,600
Technical Assistance	3,739	3,739	2,900	6,000	+3,100
Tribal Energy Grant Program	10,990	10,990	9,900	12,130	+2,230
Total, Office of Indian Energy Policy and Programs	16,000	16,000	16,000	22,930	+6,930
Federal FTEs	7	7	9	15	+6

- Funds Direct Technical Assistance (\$6 million) to meet the demand that has doubled since 2013.
- Funds Financial Assistance (\$12 million) in the form of grants for deployment of innovative energy systems and technologies; the efficient delivery of technical assistance through the Intertribal Technical Assistance Networks; and DOE Grid Modernization and Energy-Water Nexus Crosscuts.
- Provides 6 more FTEs within Program Direction (\$4.8 million) that are critical to carry out the programs, especially in the remote communities in Alaska and the Arctic.
- Implements renewable energy targets of the National Strategy for the Arctic Region (NSAR).
- Requests a stand-alone appropriation to align the budget structure with the program's mission scope and departmental organization as a direct report to the Under Secretary for Science and Energy.

### Resources

### Federal Grant, Loan, and Technical Assistance Programs



www.energy.gov/indianenergy



### <u>First Steps Toward Developing Renewable Energy</u> <u>and Energy Efficiency on Tribal Lands</u>

Ending October 20, 2016, 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:

- Conduct energy options analyses
- Establish baseline energy use and efficiency options
- Develop energy organizations
- Conduct climate resiliency planning
- Establish policy, regulations, and codes to reduce energy use or promote energy development
- 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

### **FY2015 Financial Assistance**

### Facilitating Access to Capital to Spur Deployment in Indian Country

Deployment of Clean Energy and Energy Efficiency Projects on Indian Lands 2015 (DE-FOA-0001390)

- Topic Area 1: Tribal Building Clean Energy and Energy Efficiency Retrofits
  - Facility-scale
  - 10 kW minimum for clean energy systems and
     15% displacement of energy source (Topic Area
     1.a.)
  - Multiple energy efficiency measures with 20% reduction of all energy (Topic Area 1.b.)
- Topic Area 2: Deploy clean energy systems on a community-scale
  - Community-scale
  - 50 kW minimum



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

Closes December 10, 2015

### **FOA Executive Summary**

FOA Summary	Under this FOA, DOE is soliciting applications from Indian Tribes (including Alaska Native regional corporations and village corporations) and Tribal Energy Resource Development Organizations 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).
Total Amount to be Awarded	Approximately \$4 million to \$6 million in Federal funds.
Average Award Amount	DOE 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 for Topic Area 1).

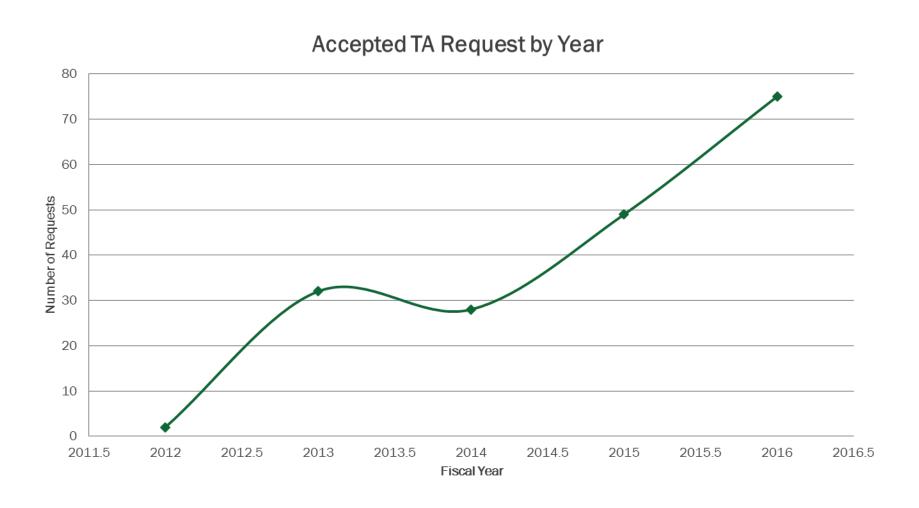
### **FOA Executive Summary - Continued**

Eligible	Subject to the definitions and requirements in Section III.A, eligible
Applicants	entities include: (1) Indian Tribes (including Alaska Native regional
	corporations and village corporations) or (2) Tribal Energy Resource
	Development Organizations. Applications from a consortium of
	Indian Tribes (Tribal Consortium) 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 eligibility
	requirements and definitions.
Cost Share	50% of Total Project Costs (100% match against DOE funds), unless
Requirement	an Applicant requests a reduction in the cost share as part of the
	application and receives approval from DOE. Applicants may request
	up to a 40% reduction in cost share, to no less than 10% of the Total
	Project Costs. Cost share reduction requests to less than 10% will
	not be considered. If DOE 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.

### **FOA Executive Summary - Continued**

Means of Submission	Applications <u>must</u> be submitted through EERE Exchange at <a href="https://eere-Exchange.energy.gov">https://eere-Exchange.energy.gov</a> , DOE's online application portal. DOE will not review or consider applications submitted through other means. The Users' Guide for Applying to the Department of Energy DOE Funding Opportunity Announcements is found at <a href="https://eere-Exchange.energy.gov/Manuals.aspx">https://eere-Exchange.energy.gov/Manuals.aspx</a> .
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. One application <u>must</u> be provided for each specific project. Submittals under different Topic Areas cannot be combined under one application, except as noted under Topic Area 1.b.
Application Forms	Required forms and templates for applications are available on EERE Exchange at <a href="https://eere-Exchange.energy.gov">https://eere-Exchange.energy.gov</a> .

### **Tribal Demand for Technical Assistance**



### Hot Topics in Technical Assistance to Tribes

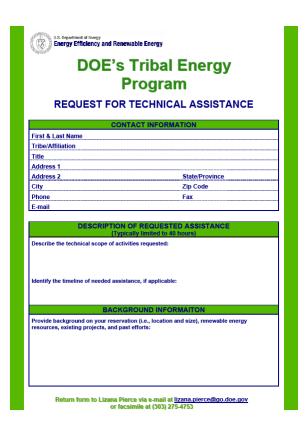
- Strategic Energy Planning
- Housing and Building Energy Efficiency
- Project Development
- Climate Resilience
- Village Power (hybrid systems, microgrids, tribal utilities)
- Policy and Regulation
- Contracting (power purchase/sales agreements, interconnection, joint ventures)

### **Technical Assistance – Tribal Geography**



### **Technical Assistance Request for Tribes**

- Offered within <u>available resources</u>
- The application process is a quick and easy on-line process
- ➤ Technical assistance ranges from a simple phone call, from 40 to over 200 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.



Complete Request Form On-line

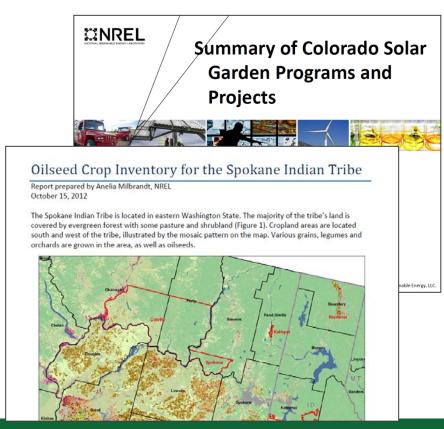
### **Technical Assistance**

#### **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



### **Technical Assistance**

#### **Pre-feasibility Transmission Studies**

- 1) Moapa Band of Paiutes (June 2009)
- 2) Utu Utu Gwaitu Paiute Tribe (Sept 2009)
- 3) Navajo Hopi Land Commission (May 2010)
- 4) Hualapai Tribe (July 2010)
- 5) Ute Mountain Ute Tribe (Feb 2011)
- 6) Chemehuevi Tribe (May 2013)
- 7) San Carlos Apache (May 2013)
- 8) Ione Band (November 2013)
- 9) San Ildefanso Pueblo (November 2013)
- 10) Nez Perce Tribe (December 2013)
- 11) Oglala Sioux (June 2014)
- 12) Turtle Mountain Band (September 2014)
- 13) Mesa Grande Band (October 2014)
- 14) Saginaw Chippewa (November 2014)



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

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

Pre-Feasibility Assessment of Renewable Generation
Applications,
For the Canoncito Band of Navaios (Tóhaiiilee)

Prepared for: US Department of Energy

#### SAN ILDEFONSO PUEBLO

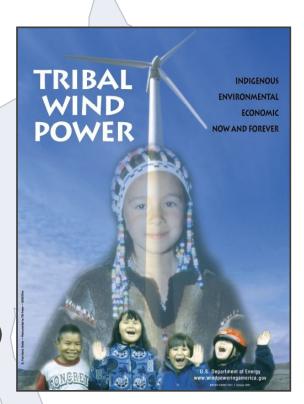


PRE-FEASIBILITY TRIBAL UTILITY REPORT NOVEMBER 22, 2013



### **Education & Training**

- Annual Program Review
- National Workshops & Tribal Energy Summit
- 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



### Student Summer Internships

#### **Applications**

- Applications due each February
- 12 week internship at Sandia National Laboratories (NM)
- See 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**

Thirty-one (31) interns sponsored since 2002

#### Contact

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

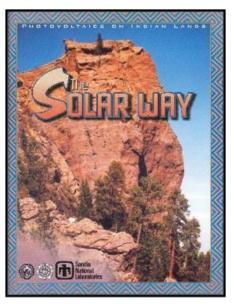
### Student Papers & Testimonials Posted on TEP Website

Summer Interns on a windy day (2004)



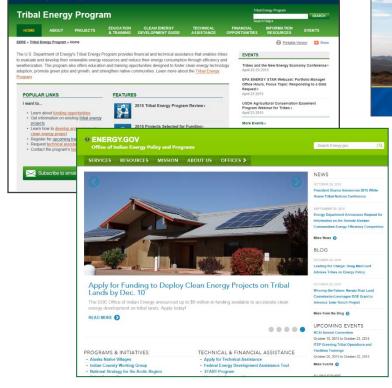
Deborah Tewa (certified electrician & solar installer) at Sandia's PV Laboratory (2002)

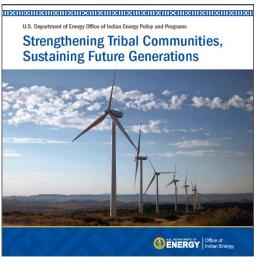


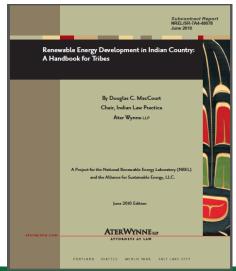


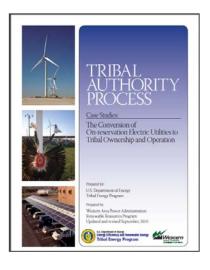
## **Information Resources**

ENERGY Energy Efficiency &









### **Informational Materials**

#### **Short Courses**

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

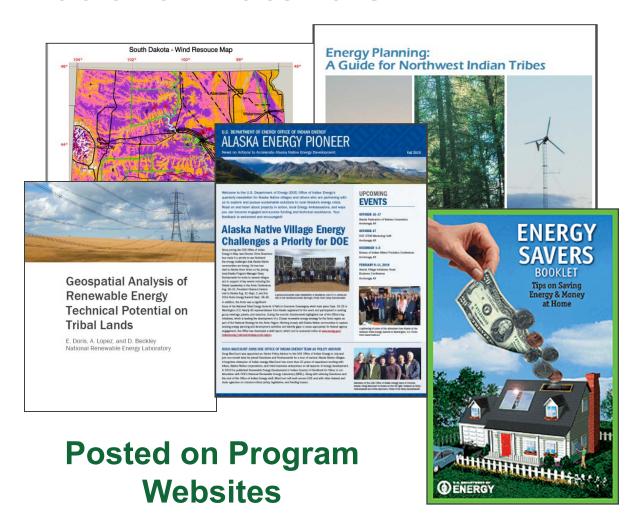
#### Handbooks & Guides

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

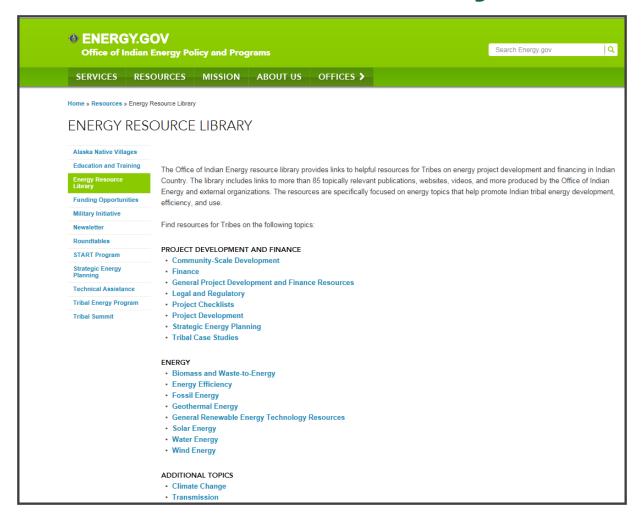
#### **Tools & Models**

- Resource Potential Maps
- Reservation Specific Wind Maps

#### **Resource Library**



### **Resource Library**



### **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** 

Join Our Email List www.energy.gov/indian energy

_	p for email updates from the DOE Office of Indian Energy, please enter your information and subscriber preferences below.
Email A	ddress
First Na	me
Last Na	me
Tribe	
Compar	ny
Title	



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