

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

## **DOE's Tribal Energy Program**



## Alaska Native Village Energy Development Workshop

April 29, 2014 Lizana Pierce, Project Manager U.S. DOE, Tribal Energy Program



## **Department of Energy**

# Advancing Energy and National Security through Science, Technology and Environmental Stewardship

Contributes to the future of the Nation by ensuring energy security, maintaining the safety, security and reliability of the nuclear weapons stockpile, cleaning up the environment from the legacy of the Cold War, and developing innovations in science and technology

### Managed by Program Offices:

- Advanced Research Projects Agency Energy
- Loan Programs Office
- Electricity Delivery & Energy Reliability
- Energy Efficiency & Renewable Energy
- Environmental Management
- Fossil Energy
- Indian Energy Policy and Programs
- Legacy Management
- Nuclear Energy
- Science

### **Principally, a National Security Agency**





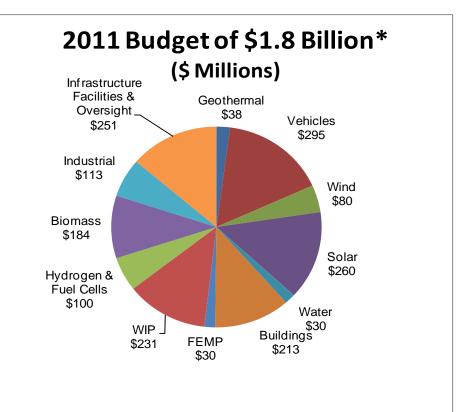
## **Energy Efficiency and Renewable Energy** Clean Energy for America's Future

Invests in clean energy technologies that:

- Strengthen the economy,
- Protect the environment, and
- Reduce dependence on foreign oil

Leverages partnerships to transform the nation's economic engine to one powered by clean energy.

\* Operates a budget of \$1.8 billion (2011) and responsible for investing more than \$16 billion in Recovery Act funds



### **Primary Focus is Research & Development**



## **Program 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 information and education, and financial and technical assistance to Tribes to develop their renewable energy resources and reduce their energy consumption.





## **Program Mission**



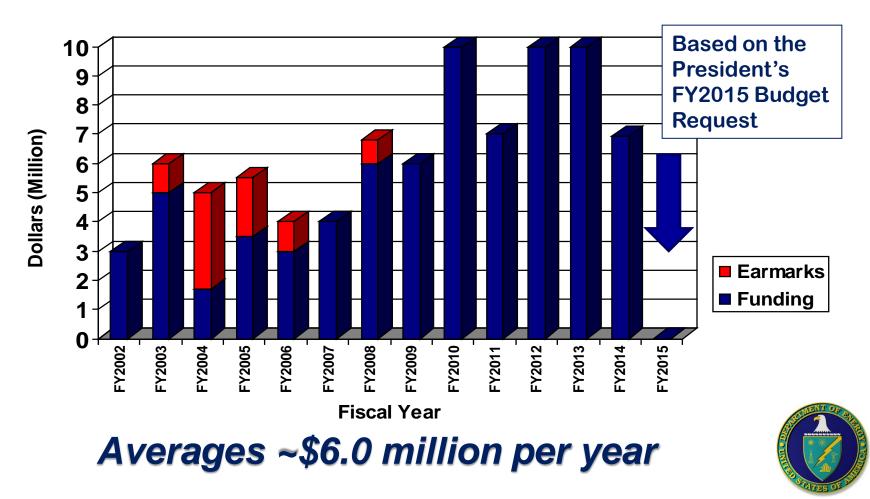
# Offering financial and technical assistance to Tribes through government-to-government partnerships that:

- 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**





## **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

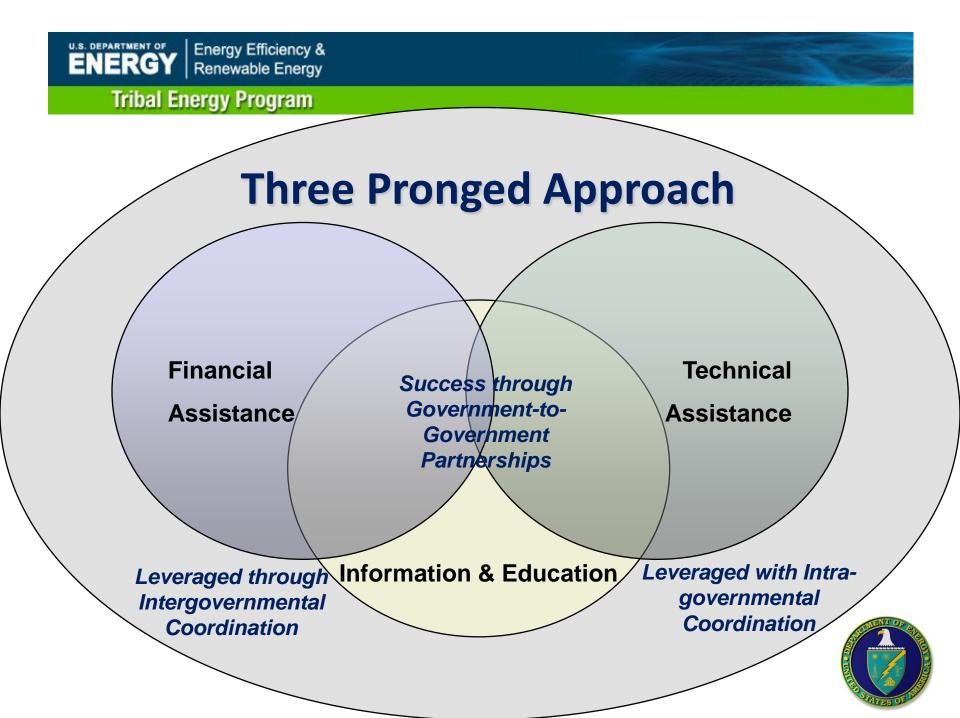
Per the Request, "The Tribal Energy Program and its activities...... is proposed for consolidation into the Office of Indian Energy Policy and Programs."





## **President's FY2015 Budget Request**

- Per the President's FY2015 budget request, the Tribal Energy Program and activities are proposed to be <u>consolidated into</u> the Office of Indian Energy Policy and Programs (Office of Indian Energy) in Fiscal Year 2015.
- The Intent of the <u>consolidation of Indian programs under one Office</u>, is to provide Tribes with a <u>one-stop shop</u> for developing and managing their energy resources in an "all of the above" energy strategy.
- Per EPAct 2005, the Office of Indian Energy was established with funding authorization through FY2016; and identified specific activities that are <u>similar</u> to those currently being conducted by the EERE Tribal Energy Program.
- Although this is still subject to Congressional approval through the FY2015 Appropriations Act, if passed, <u>all</u> funding and activities through the Tribal Energy Program <u>will be</u> <u>transferred</u> - meaning, that you will now be working with the Office of Indian Energy to access grant funding (if any) and for any technical assistance.
- However, we have had a cooperative working relationship with the Office of Indian Energy since that Office was established (2011), and therefore if authorized by Congress, we will work with that Office to ensure a smooth transition.



# **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 villages or regional or 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).



Tribal Lands 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



# **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)

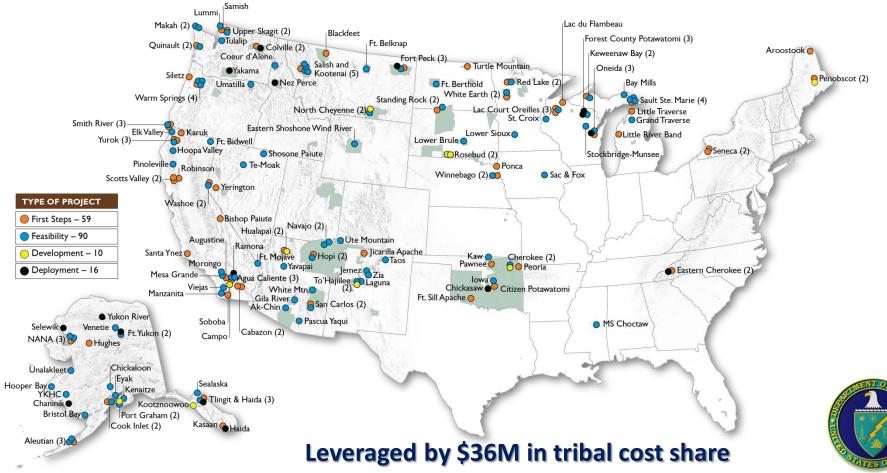
\* Including 9 pending awards.

Over 70% of All Discretionary Funding Provided Directly to Tribes through Grants





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



## **Project Accomplishments**

### **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 67 tribal buildings (1.7 million square feet) 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



Leveraged by \$36M in tribal cost share



## Highlighted during the 2013 White House Tribal Nations Conference

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

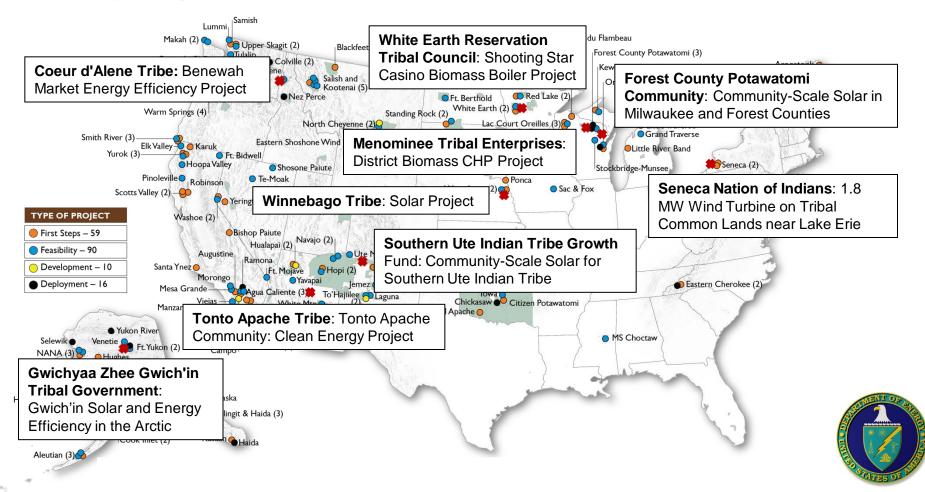
"As part of the Obama Administrations commitment to strengthening partnerships with Tribal nations and building stronger, more

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





**Project Summaries and Reports Posted** 

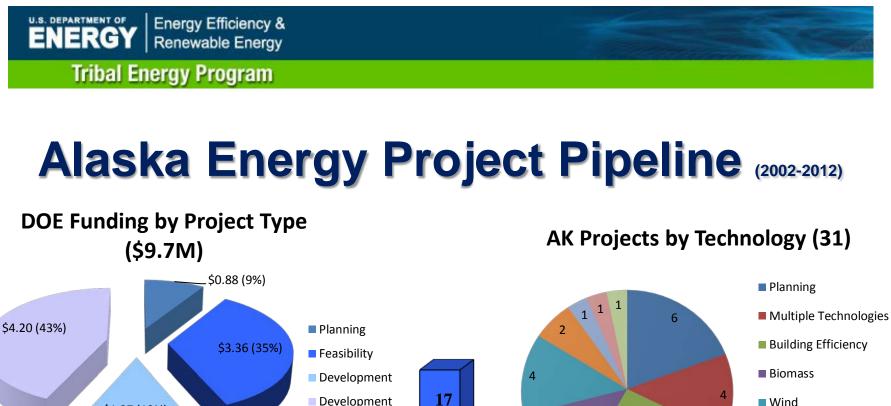
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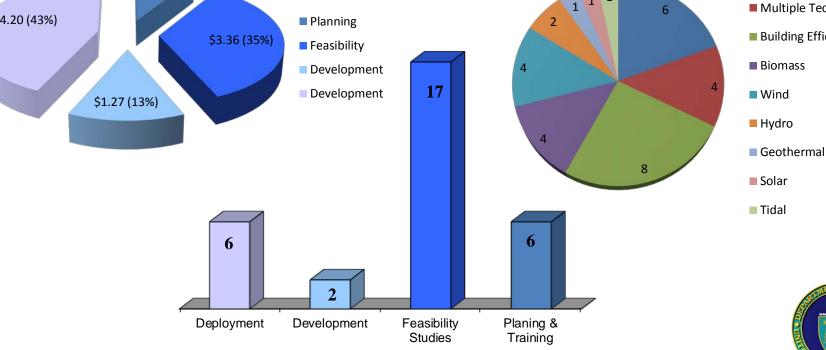
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# **Alaska Project Accomplishments**

### Renewable Energy Deployment in Indian Country

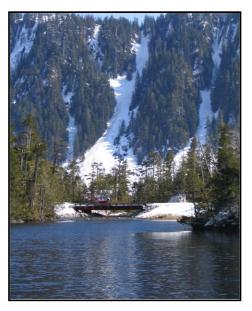
#### **Renewable Energy Deployment Projects**



**Chaninik Wind Group's** Thermal Heating Project (AK)

**Council of Athabascan Tribal Government (CATG)** Biomass Heating Project in Fort Yukon (AK)





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



**Project Summaries and Reports Posted Online** 



## **Alaska Project Accomplishments**

### Deployment to Save Energy for the Future

### **Building Retrofit Projects**

**Alaska Native Tribal Health Consortium** (ANTHC) upgrading sanitation facilities in Selawik, AK





Yukon River Inter-Tribal Watershed Council (YRITWC) installing energy efficiency measures for the Nunamiut people of Anaktuvuk Pass to reduce energy

use by 34%





**Central Council Tlingit &** Haida Indian Tribes of Alaska (CCTHITA) retrofitting 4 buildings for projected annual savings of \$52,271 (AK)



## Alaska Project Accomplishments Assessing the Feasibility of Renewable Energy



Chickaloon Village Traditional Council assessing use of renewables through their Uk'e koley (No Footprint) project







Native Village of Eyak assessing the potential for wind in Cordova, Alaska

Aleutian Pribilof Island Association (APIA) assessed wind potential in the Aleutian Islands

Sand Point wind turbines projected to save 152,000 gallons per year

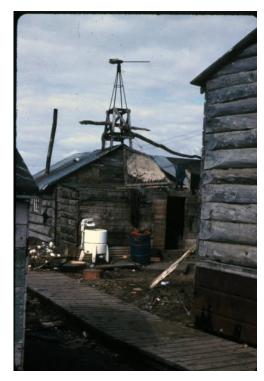




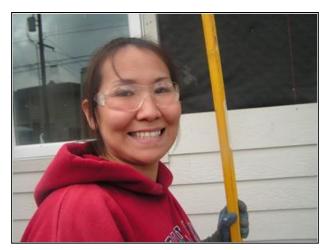


# **Alaska Project Accomplishments**

### **Understanding Energy Use and Building Human Capacity**



**Sea Lion Corp** conducted energy audits on 24 homes in Hooper Bay, Alaska



**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.



Tlingit Haida Regional Housing Authority (THRHA) to conduct energy audits on over 50 buildings and train technicians in Southeast Alaska (AK)



## **Providing Technical Assistance**



Office of Indian Energy Energy Efficiency & Renewable Energy

### **Types of Technical Assistance**

1) Strategic Energy Planning

Consists of a facilitated on-site session

2) Project Development Support

Consists of expert guidance and/or analysis to help address a specific need or barrier to a tribal clean energy project.





National Renewable Energy Laboratory (NREL) Science & Technology Facility and Solar Energy Research Facility (SERF)



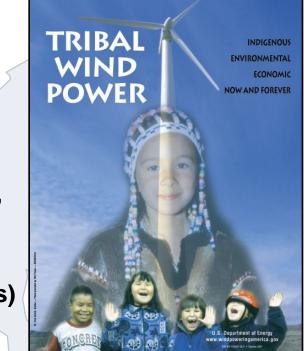


Assisting Tribes with expertise from DOE's National Laboratories and Other Providers



## **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 ~200 250 participants (over 1,850 since 2002)



#### I enjoyed the program review very much. Thanks.

It was an excellent meeting

As always, you guys put on a great conference. The energy level, the ideas, and the level of support and cooperation among the tribes is very high.

Thanks for putting on a great conference. It was my first time attending, but I am sure I will be back in future years. Really well organized and run.

I thought the conference was great. Was honored to be able to participate.

## **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-eight (28) interns sponsored since 2002

### Contact

Sandra Begay-Campbell at (505) 844-5418 or <a href="mailto:skbegay@sandia.gov">skbegay@sandia.gov</a>

### 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)

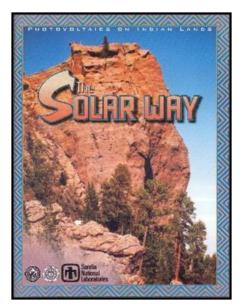


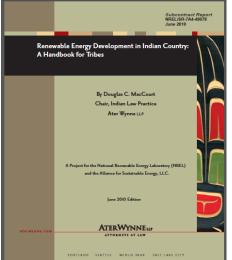


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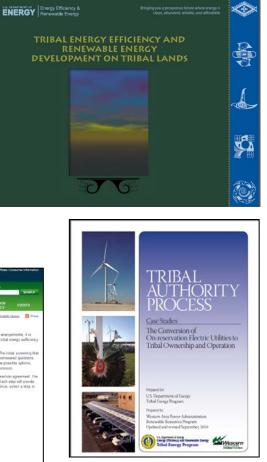
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## **Informational Materials**

### **Short Courses**

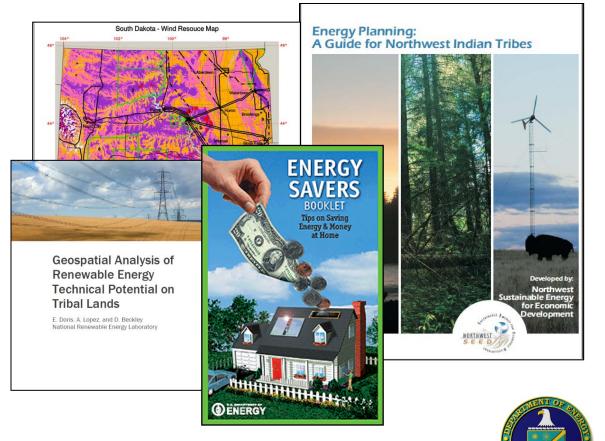
- Analysis & Economics
- Business & Financing
- Community Development
- Demand-side Options
- Renewable Technologies

### 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

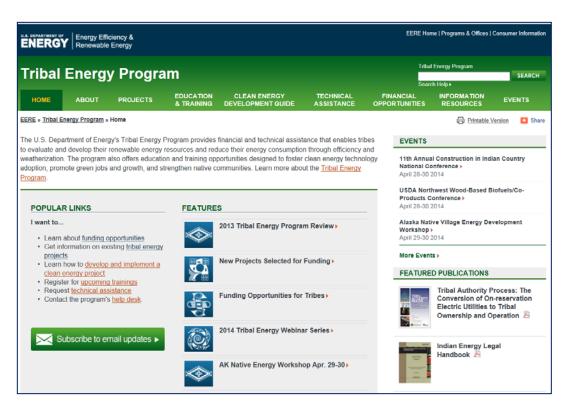


### All Material Posted on Program Website



## **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 by
  - Tribe Name
  - Award Year
  - Award Type
  - Technology
- Project Map (By State)
- Project Summaries
  - Overview
  - Scope
  - Location
  - Status
  - Presentations
  - Final Reports
  - Tribal Contacts



### **Assuring Visibility of Tribal Projects**



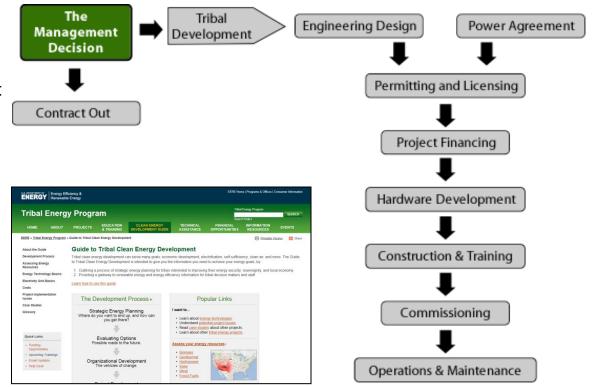
## "Guide to Tribal Energy Development"

#### **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**

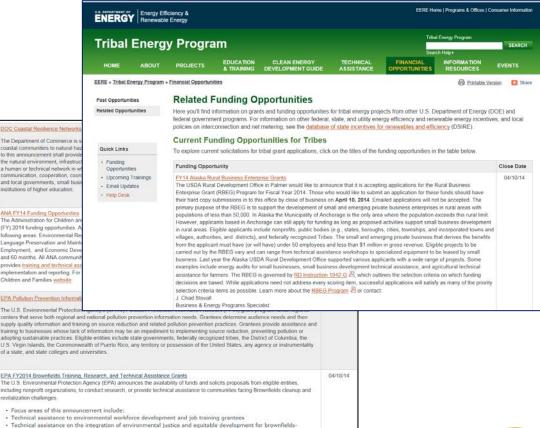




## **Other Funding Opportunities**

Funding Opportunities for Tribes

- New feature on the website that highlights hundreds of millions of dollars in funding opportunities available at a glance.
- Be sure to check frequently for the most complete and up-to-date listing of funding opportunities available to state, local, and tribal governments.



### See Funding Opportunities on the Tribal Energy Program Website or Receive Email Notifications





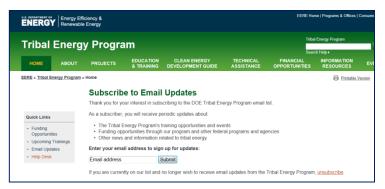
## **Email Notices**

### 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



### 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)

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





## **Questions?**

### Lizana Pierce, Project Manager

Tribal Energy Program U. S. Department of Energy Office of Energy Efficiency and Renewable Energy Telephone: (720) 356-1749 Email: <u>lizana.pierce@go.doe.gov</u>

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



