



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

Tribal Energy Program



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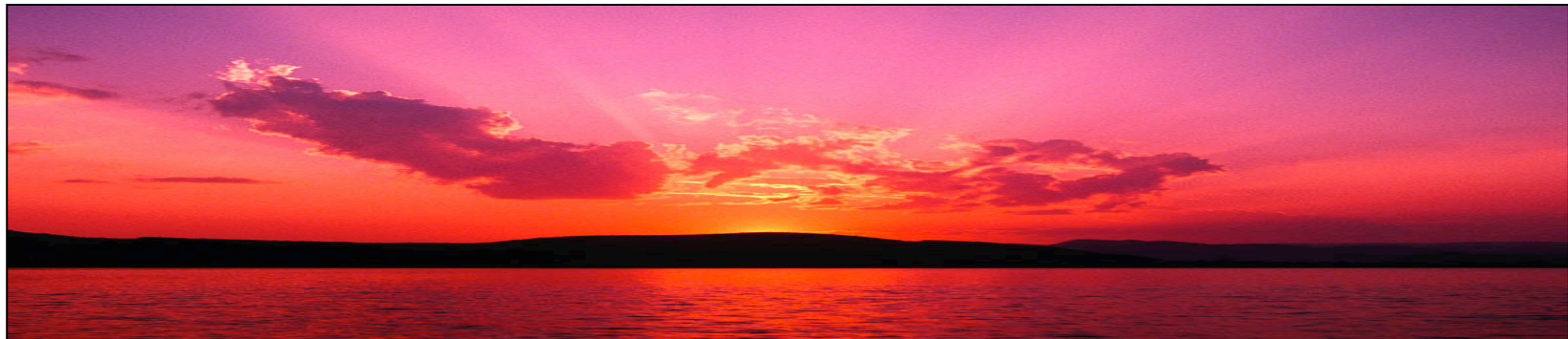
www.eere.energy.gov/tribalenergy





DOE's Tribal Energy Program

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



Authority

Title V of the Energy Policy Act (EPAAct 2005)





DOE's Tribal Energy Program



Mission

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

- 1) Empower 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 Native Americans.***





DOE's Tribal Energy Program

Tribal Energy Program

“Indian land comprises 5% of the land area of the United States, but contains an estimated 10% of all energy resources in the United States”

“Wind resources in the Great Plains could meet 75% of the electricity demand in the contiguous 48 states.” (Native American Energy Development and Self-Determination Act of 2003)

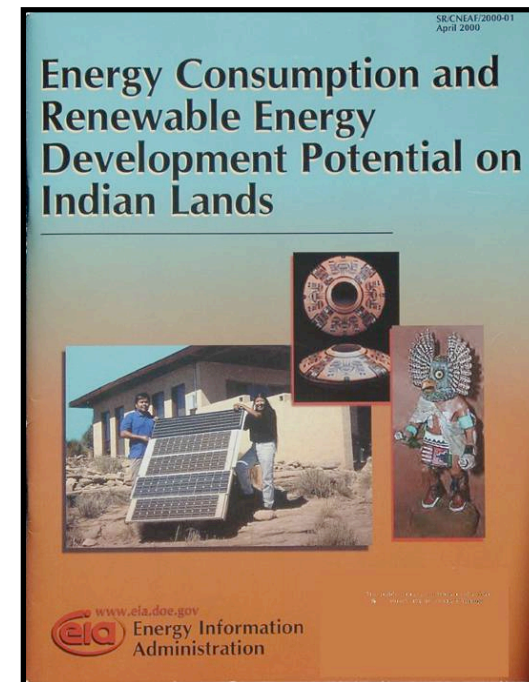




DOE's Tribal Energy Program

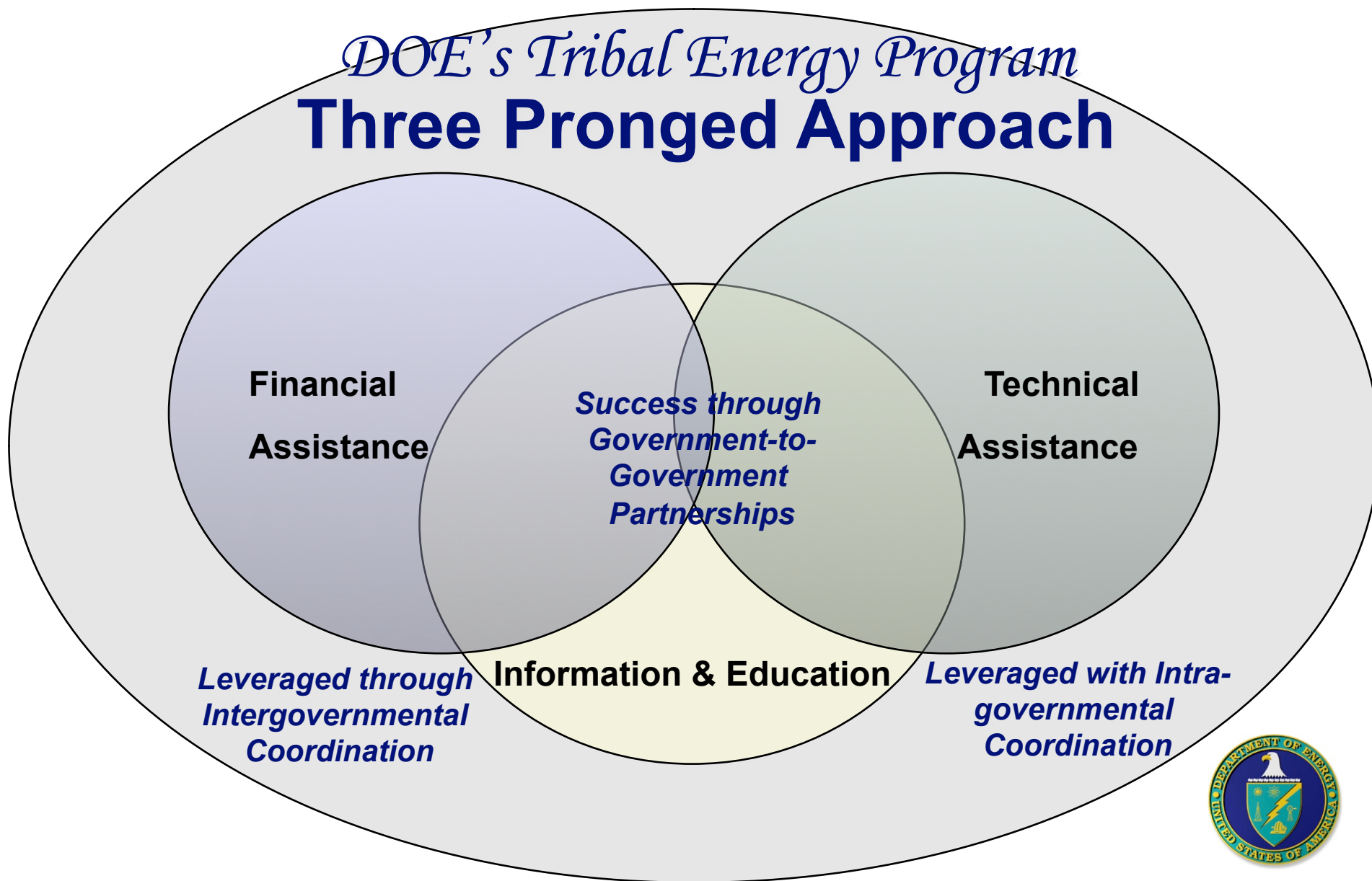
Tribal Energy Program

“Indian households on reservations are disproportionately without electricity. A total of 14.2% of Indian households have no access to electricity, as compared to only 1.4% of all U.S. households.” Navajo accounts for 75% of the households without electricity (2000 EIA Report)





DOE's Tribal Energy Program **Three Pronged Approach**





DOE's Tribal Energy Program

Providing Financial Assistance

Providing financial and technical assistance to Tribes for the evaluation and development of renewable energy resources on Tribal Lands

Eligibility:

Federally-recognized Tribe, Tribal Energy Resource Development Organization, or Tribal Consortium (two or more entities, at least one of which is an Indian 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 Federal land lease.

Funds Awarded through a Competitive Process



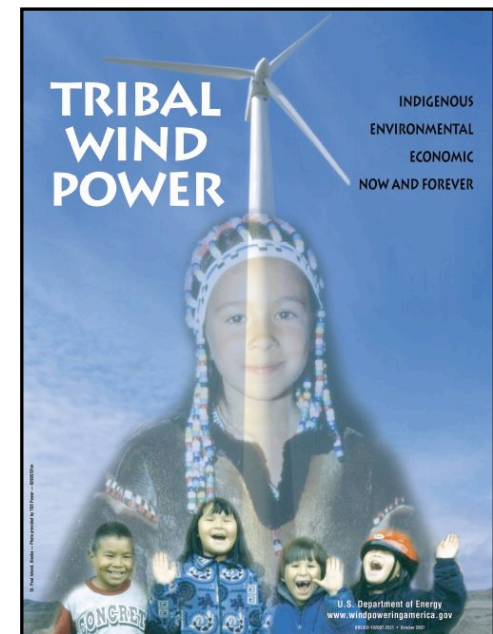


DOE's Tribal Energy Program

Providing Financial Assistance

Financial Assistance to Spur Deployment in Indian Country

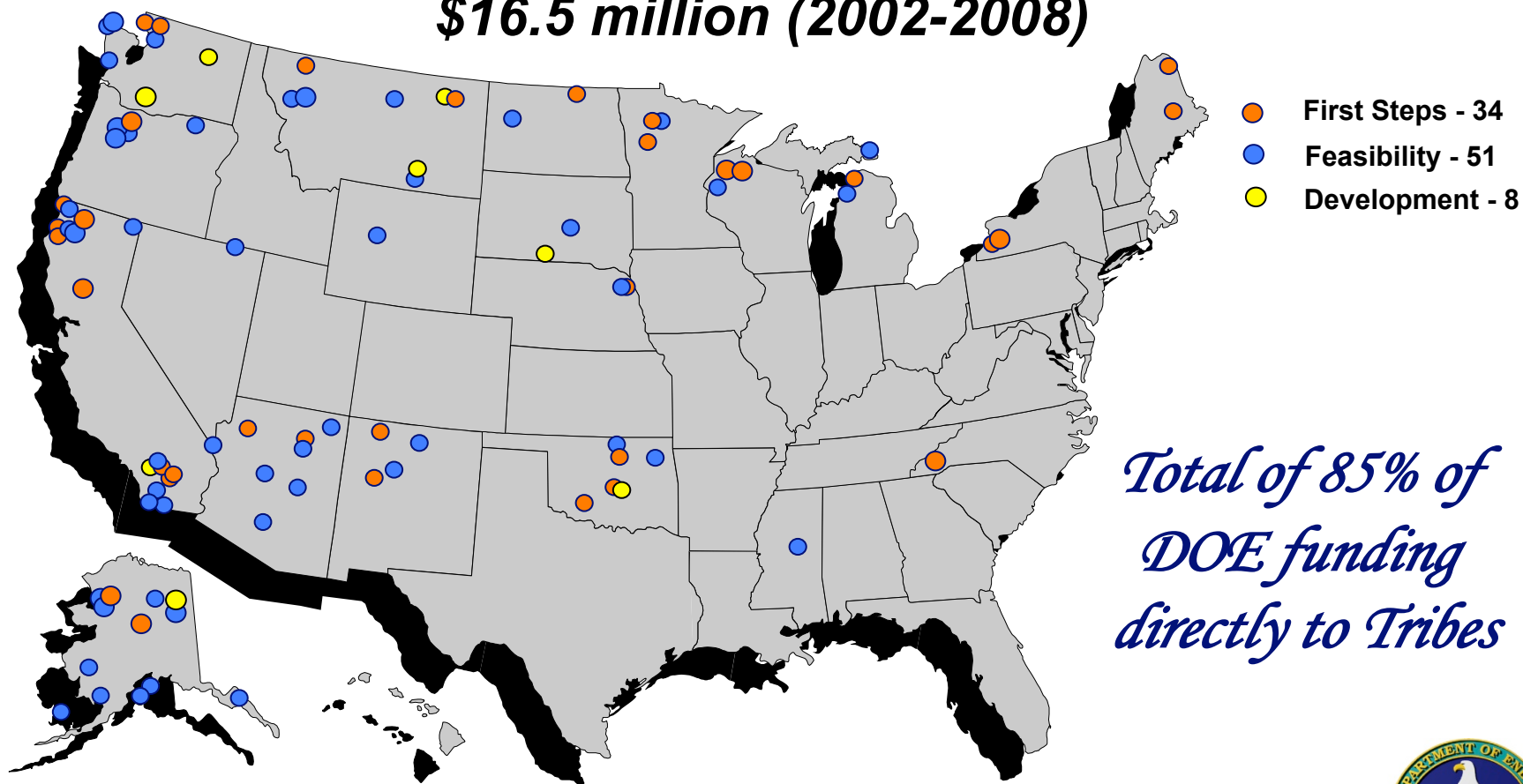
- **Assessing the Feasibility of Renewable Energy Development and Energy Efficiency Deployment on Tribal Lands**
 - Building Efficiency, plus renewable heating and cooling
 - Renewable Energy
- **Renewable Energy and Energy Efficiency Deployment on Tribal Lands**
 - Building Efficiency, plus renewable heating and cooling
 - Pre-construction activities for renewable energy projects
 - Construction of renewable energy projects for power production
- **First Steps Toward Tribal Weatherization – Human Capacity Development**





DOE's Tribal Energy Program

**DOE has funded 93 tribal energy projects totaling
\$16.5 million (2002-2008)**



*Total of 85% of
DOE funding
directly to Tribes*

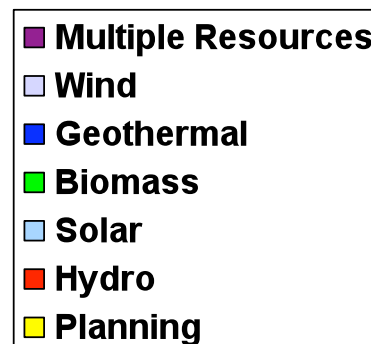
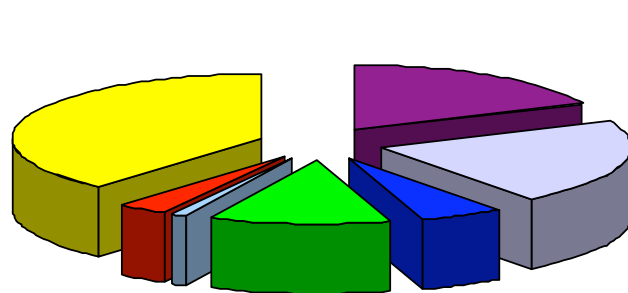
Tribes cost-shared \$6.4 million



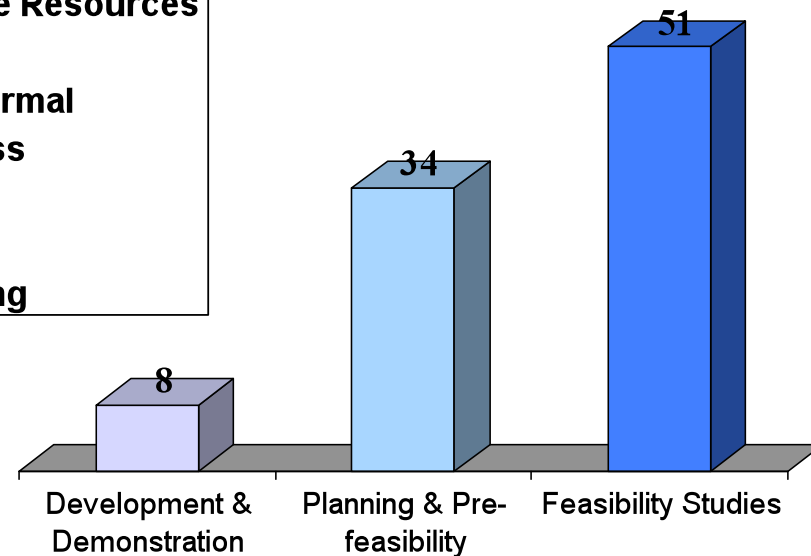


DOE's Tribal Energy Program Project Pipeline

Assisting Tribes Fulfill Their Energy Vision



*Diversity of Renewable
Energy Technologies
being Pursued*





Navajo Nation Residential PV Navajo Tribal Utility Authority

.....1993.....1999-2001.....2002-2003.....2003-2004.....

240-260 Watt



Business potential realized

640 Watt



Standardization achieved

Phase I 880 Watt Hybrid



Battery bank powered by hybrid design

Phase II 880 Watt Hybrid



Economic Development: Units assembled on Navajo Nation





Sandia provides technical assistance to the DOE EERE Tribal Energy Program



Southwestern Indian Polytechnic Institute (SIPI) was previously awarded a RE curriculum & hardware grant

- Sandia provides technical assistance for the DOE Tribal Energy Program awardees. Specific assignments are made to support the tribal grantees.
- The Tribal Energy Program team also participates in many tribal conferences throughout the year.

DOE's Office of Weatherization & Intergovernmental Affairs Program

<http://www.eere.energy.gov/power/tribalenergy>





DOE's Tribal Energy Program

Student Internships – Green Collar Natives

Requirements

- Must be a U.S. citizen and a **Native American**, defined as a member of a federally recognized tribe, Alaska Village, or Alaska Corporation

Application Process

- Applications due in February
- 12 week internships at Sandia National Laboratories (NM)
- Contact Sandra Begay-Campbell at
- (505) 844-5418 or skbegay@sandia.gov
- Application form posted on TEP website annually

Interns

- Eighteen (18) interns sponsored since 2002



Past and Present Interns at Southwest RE Conference
(2009)

Student Papers Posted on TEP Website





DOE's Tribal Energy Program

Annual Program Review

Unique Tribal Forum for Sharing and Learning

- Forum for Tribes to meet and learn from other Tribes pursuing energy sufficiency through renewable energy and energy efficiency, and share in their successes.
- Networking & learning opportunities.
- Project presentations – lessons learned.
- Forty to fifty (40-50) tribal energy projects represented.
- Typically 150-200 participants.



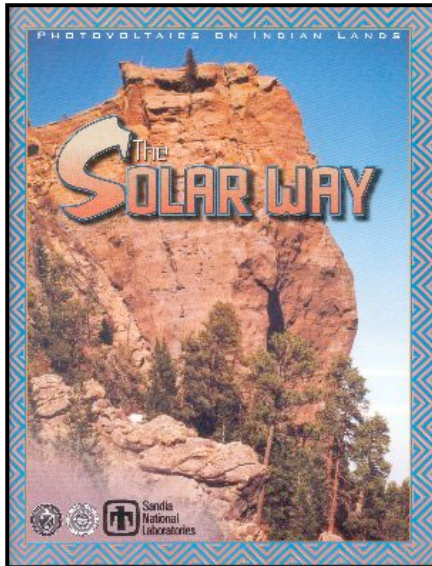
Fall 2010 Denver, CO





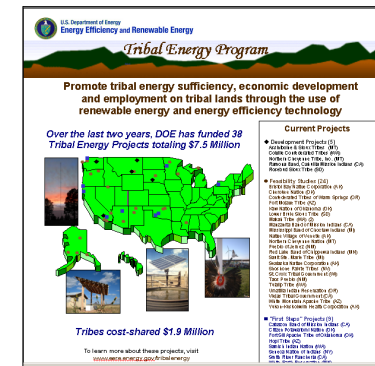
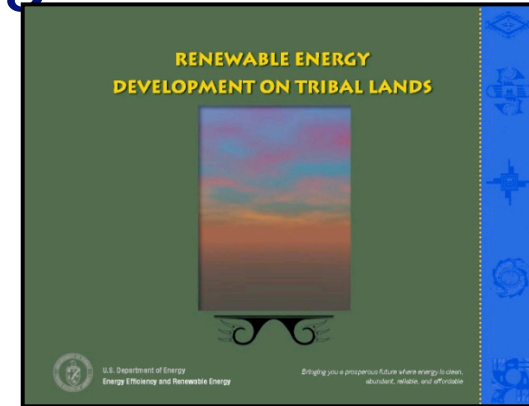
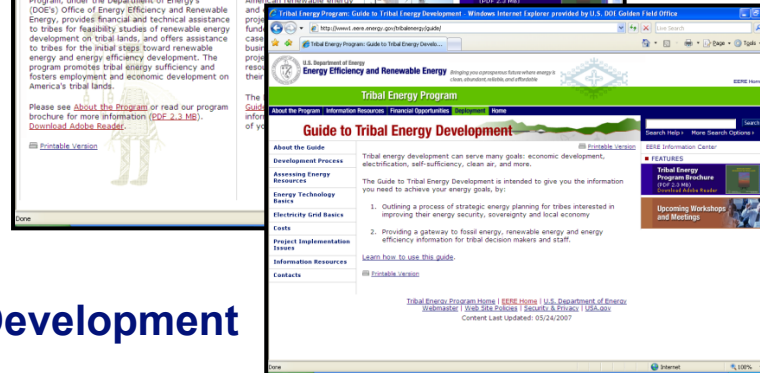
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Information Resources



Tribal Energy Website

Guide to Tribal Energy Development



Join Our Email List

For Information on funding opportunities, workshops & training, and other tribal energy information

Email lizana.pierce@go.doe.gov





DOE's Tribal Energy Program

Energy Enabling Economic Development

Citizen Potawatomi Nation (Oklahoma)

- Committed to using the earth (geothermal ground source heat pumps) to heat and cool their hotel/casino and member homes.

Humble Beginnings (1970)





DOE's Tribal Energy Program

Success through Partnerships

Tulalip Tribes (Washington)

- Anaerobic digester to use dairy waste to reduce groundwater and salmon stream pollution from dairy operations - converting manure into electricity



Cooperative between:

- Sno/Sky Agricultural Alliance, a farmer's cooperative
- Quil Ceda Power, subsidiary of the Tulalip Tribes
- Northwest Chinook Recovery, non-profit organization to preserve, restore and enhance salmon habitat in the Puget Sound region





DOE's Tribal Energy Program

Tribal Enterprises for Energy Development

Cherokee Nation Enterprises Wind (Oklahoma)

- Oklahoma Tribe completes business plan for 100 MW wind farm to offset \$8 Million in energy costs



CNE plans 100% Tribal ownership



**Class III wind resource verified
using Sodar**





DOE's Tribal Energy Program **Making a Commitment to the Future**

Augustine Band of Cahuilla Indians (California)

- Installed the “largest” (1.1 MW) solar electric system in Indian Country (February 2009)



“It's an important component of the tribe's effort to eliminate its overall energy footprint, and is consistent with our centuries-old commitment to living in harmony with nature,” Chairwoman Green said in a statement.

After receiving a DOE “First Steps” grant to develop an energy plan, the Tribe moved forward with the installation of this \$7 million system.





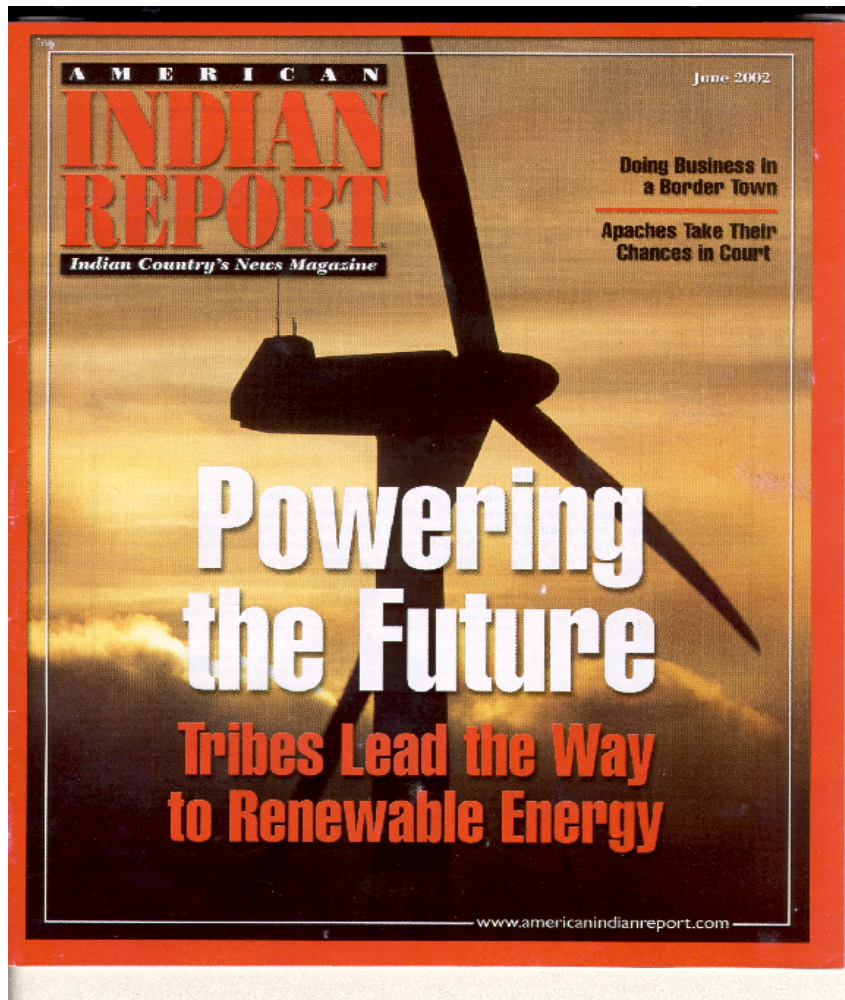
DOE's Tribal Energy Program

Alternative Energy Powering a Reservation

Ramona Band of Cahuilla (California)

- Renewable power for the Tribe's ecotourism business – Planned as the first Reservation to be completely off-grid





Questions

“Tribes Leading the Way to Renewable Energy”

**American Indian Report
June 2002**

