

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





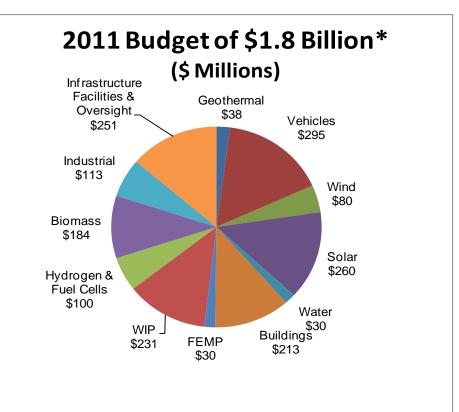
Energy Efficiency and Renewable Energy Clean Energy for America's Future

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



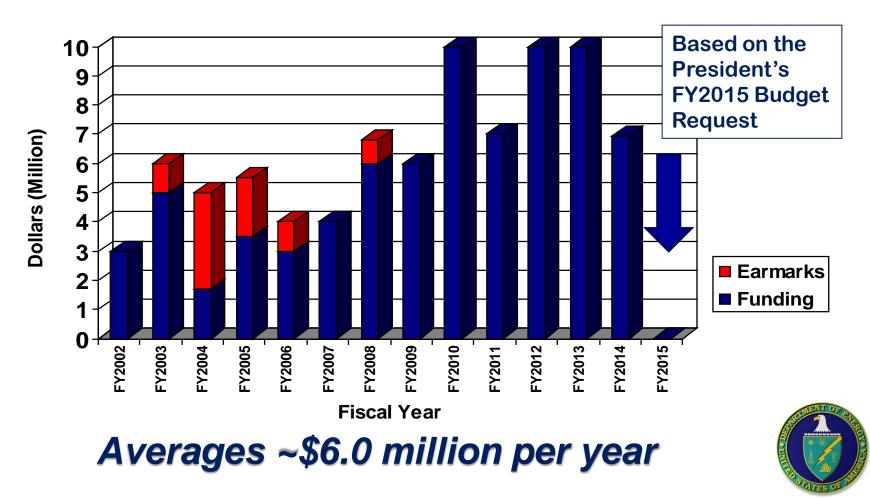
Offering financial and technical assistance to Tribes through government-to-government partnerships that:

- 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

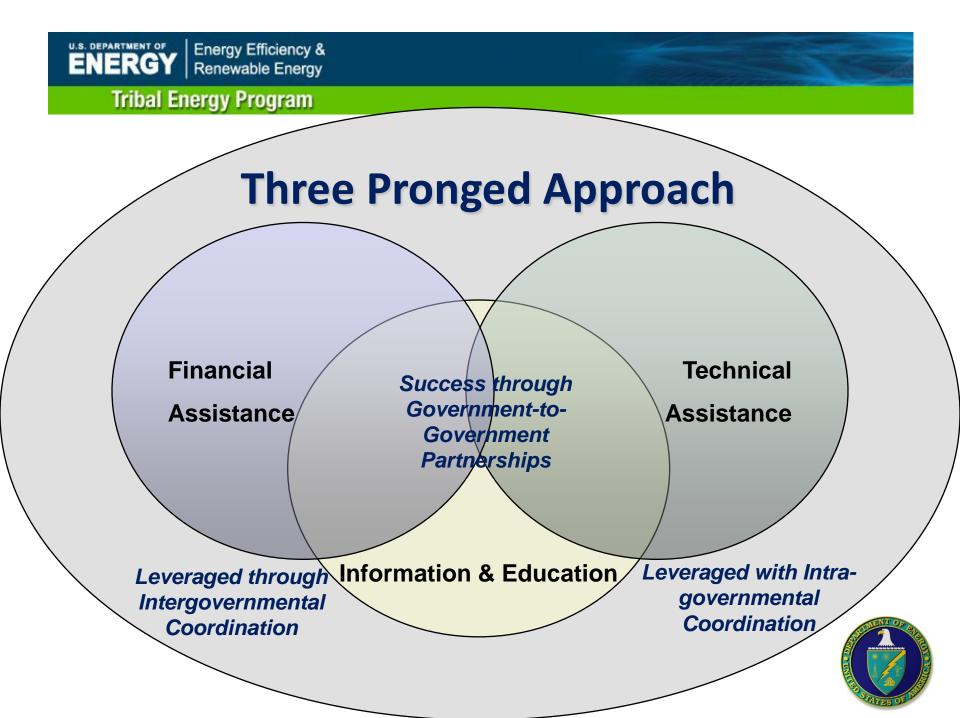
Per the Request, "The Tribal Energy Program and its activities...... is proposed for consolidation into the Office of Indian Energy Policy and Programs."





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)

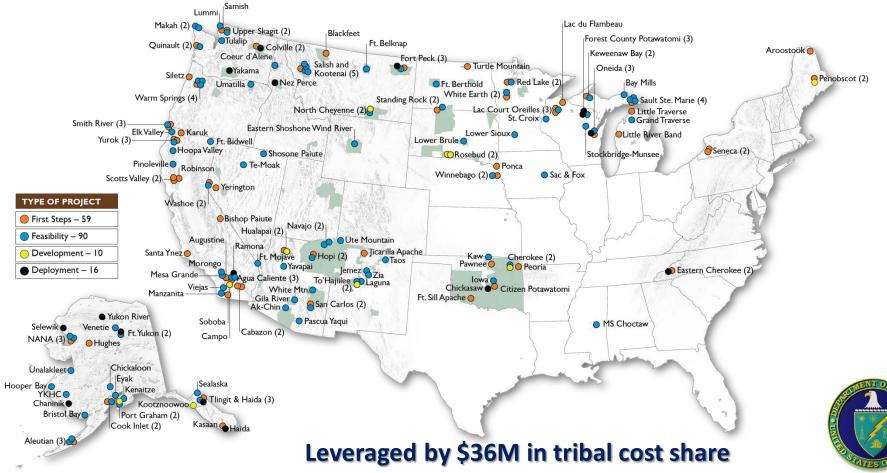
* Including 9 pending awards.

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

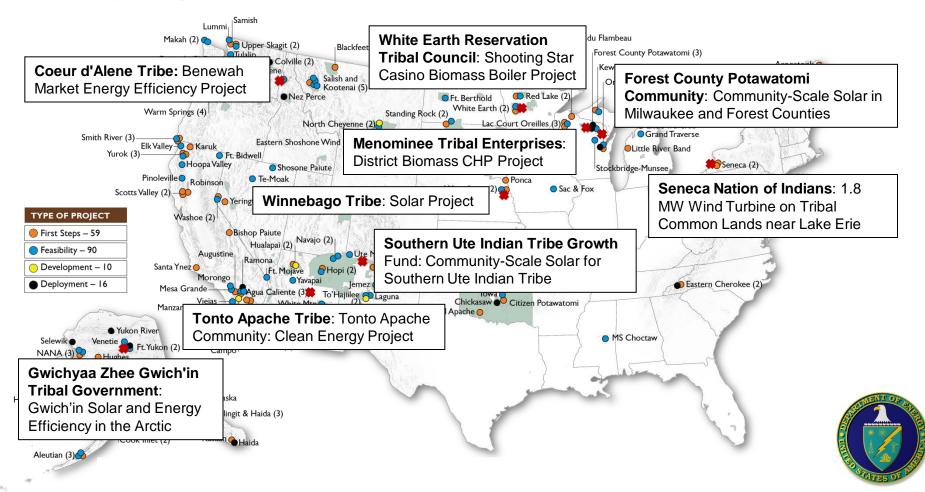
"As part of the Obama Administrations commitment to strengthening partnerships with Tribal nations and building stronger, more

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

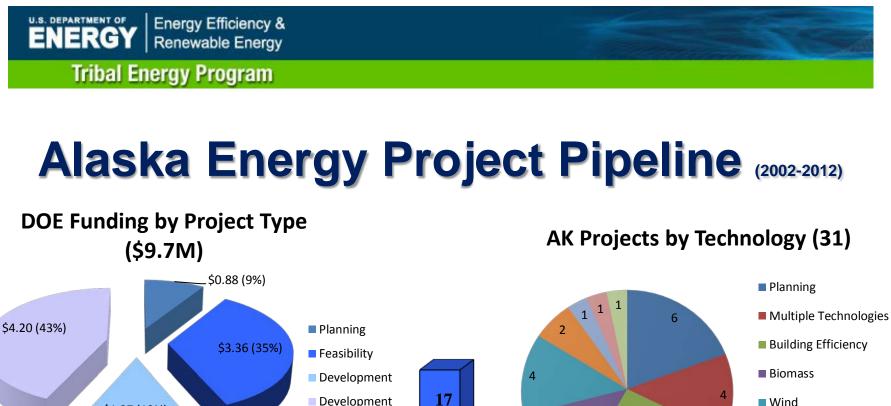
Aleutian (3)

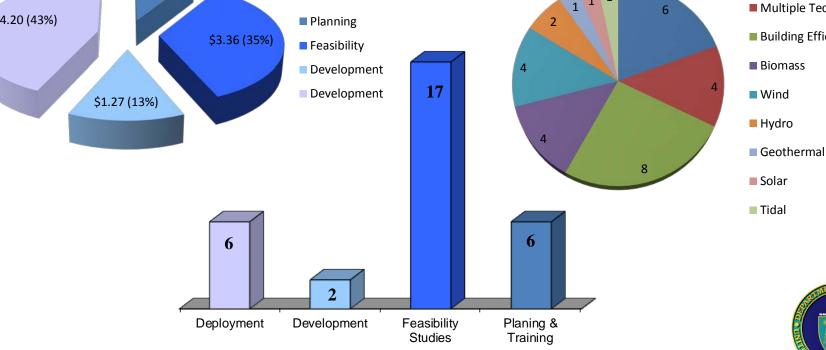
Cook Inlet (2)



Kasaan (

Haida







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

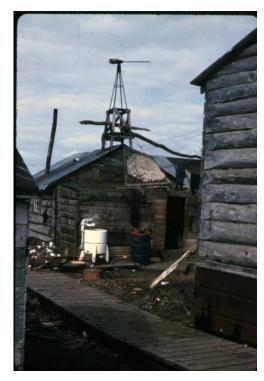




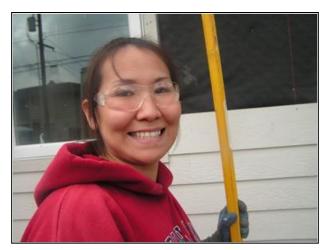


Alaska Project Accomplishments

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)



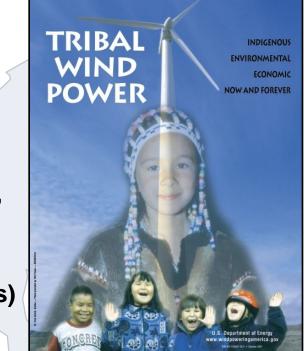


Assisting Tribes with expertise from DOE's National Laboratories and Other Providers



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 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)

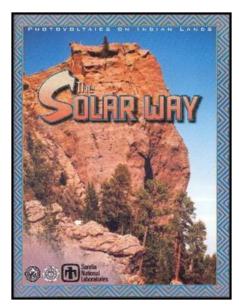


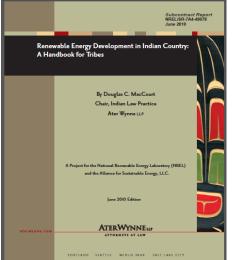


ENERGY Renewa

Tribal Energ ABO EERE » Tribal Energy Program The U.S. Department of Ene

evaluate and develop their r weatherization. The program Program POPULAR LINKS I want to... Learn about fundin
 Get information on Learn how to devel





Information Resources

ERG	Y Energy Effici	iency & Energy				EERE +	iome (Programs & Offices)	Consumer Information	
ibal	Energy	Progra	m				al Energy Program xh Help ►	SEARCH	
IOME	ABOUT		EDUCATION & TRAINING	ENERGY DEVELOPMENT G	TECHNICAL UIDE ASSISTANCE	FINANCIAL	INFORMATION RESOURCES	EVENTS	
» Tribal Er	nergy Program							arsion 🚺 Share	
I.C. Dave	denoral of Freedor	a Tribal France D	and the second states in the second states in the second states and states and states and states and states and		ssistance that enables tribes	to EVENTS		COOLER TRANSFORMER	
ate and d	levelop their rener	wable energy reso	urces and reduce th	neir energy consumpt	ion through efficiency and		national Straw Builder		
					oster clean energy technolog about the Tribal Energy	September		s' Conterence >	
am.						DOE Webi	nar: Accelerating Inno	vation: Energy	
						Storage or September	25 2012		
OPULAR	LINKS		FEATURES				ding HUD Environmer	atal Reviewe	
want to				2012 Tribal Energy	Program Review)	Water Res	ources	THE POPULATE.	
· Leam.	about funding op	portunities	200			September	26.2012		
· Get inf	formation on exist		INCOME?			More Ever	nts +		
Leam	how to develop a	nd implement an	The second	Guide to Tribal Ene	rgy Development	FEATURE	ED PUBLICATIONS		
energy	r project ter for upcoming t	traininge	The second				Indian Energy Leg	len	
 Reque 	est technical assis ct the program's h	stance		ERGY Energy Et	ficiency &		moun chergy ce	COR N	ome (Property & C
			1	CME ADOUT	PROJECTS EDUCAT	Ch DEVELOPMEN		CAL FRANCIAL INCE OFFICIENTIES	REORMAN RESOURCE
			ELM -	Tribul General Prosters	- Suide to Tribel Energy Develop	Eners			80
			Abeu	d the Guide	Project Develop	ment			
			Sevel	lepreet Process					
			E					ic having choses your prefer	
			6.75	rgy Planneg	then possible to formulate a				
			Ere	isating Optione	then possible to formulate a goals	n action plan, raise fund	ing, and move loward e	with specific projects that or	etribute to your
			Era		then possible to formulate a goals. Defore actually consolting takes place during strategic	er action plan, raise fund to construction, most en plan development shou	ing, and move loward e engy projects benefit fro ic dentify a sumber of in	with specific projects that co on a more detailed transfold steresting options while gen	estibute to your
			Ere Org Dev	ikating Optione ancestionel	then possible to formulate a grafts Defore actually contenting takes pace curing interego For the preferred options, c	n action plan, raise fund to construction, most en plan development shou reducting a good feasible	ing, and move loward e ergy projects benefit fo it dentify a number of in ity accessment will red	with specific projects that co m a more detailed familiar statesting options while gas use the list of interesting op	ethibule to your y annexistence. ' eching icts of u hors down to th
			Dig Oge Frei 1 Frei	inating Cytone and attorned alsprent and Development could be Associated	then possible to formulate a goats. Defore actually committing takes place during strategic For the prefersic aptions, ci which can be father ranked	n action plan, raise fund to construction, most en plan development shou securcting a good faasisti by cittoria important ta	ing, and more loward o engy projects benefit for to dentify a number of in ity assessment will red the tribe. The winners o	with specific projects that co on a more detailed francisite staresting options while gas use the last of interesting op an then more into the project	etitibulle to your y annexistent. Verwing icts of u Roes down to th ct dovelopment ;
			Era Osy Osi Fair - Fi	loaling Options ancational altigrant and Development costility Assessment terpermettion Projesse	them possible to formulate a goals. Defore actually committing taxes pace curing stratego For the prelense aptors, or which can be faither ranked As part of the feastbility and referencement access on	n action plan, raise fund to construction, most en plan development shou seducting a good feasible by onloria important ta- iestement, the table shou onld proceed in parallel.	ing, and more loward o engy projects benefit for it dentify a sumber of in ity assessment will out the tribe. The warens o ld begin concustories of with the project dentifier	with specific projects that co on a more detailed francision stevening options while per use the let of interesting op an their move into the project the two call electrics unity at mant proceed, which is may	ethibulle to your <u>x envelopment</u> , enving icts of u hours down to th ct dovelopment; hour an intercom pod out balow.
			Ers Org Org Proj Filo Filo Filo Filo Filo Filo Filo Filo	kalleg Optione ancektionel stepnent pel Development cookility Assessment terpennettier Projese anagement Decision	then possible to formulate a goals. Before actually committing taxes nace ouring immerge For the preleval options, c which can be further ranked As part of the feasibility as referencedate associated	n action plan, raise fund to construction, most en plan development shou ooducting a good feasible by celloria important to isotoment, that tabe shou pald precoid in parallel in the information and docu-	ing, and more loward o engy projects benefit for it dentify a sumber of in ity assessment will out the tribe. The warens o ld begin concustories of with the project dentifier	with specific projects that co on a more detailed francision stevening options while per use the let of interesting op an their move into the project the two call electrics unity at mant proceed, which is may	ethibulle to your <u>x envelopment</u> , enving icts of u hours down to th ct dovelopment; hour an intercom pod out balow.
			Eve Orgo Press R R R R R R R R R R R R R R R R R R	kaling Optone ang akonal akgrowit past Development cestikility Assessment tertermentiles Process anagement Decision antheolog Out	these possible to formulate a grants. Defose actually conventing toxes mach curing strategic For the prelevel deform. It which can be faither ranked As part of the feasibility and intercencing approach for all, of the process or print the sec	In action plan, name fund to construction, anost en plan development shou order that a spool transiti by orders a important to account, this the should be determent, this the should be the information and docu- ularity access.	ing, and more korward e engry projects benefit for to dentify a sumber of in toy assessment will ad the tribo. The winners to kit has project dentleps when also needed to m	with specific projects that co on a noise detailed favoration tenesting options while per- lice the list of interesting op an their more into the projec- th the local electric unity at matt proceed, which is may over your individual projects	ethibulle to your <u>x envelopment</u> , enving icts of u hours down to th ct dovelopment; hour an intercom pod out balow.
			Eve Orgo Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Press Pre	kalleg Optione ancektionel stepnent pel Development cookility Assessment terpennettier Projese anagement Decision	these possible to formulate a goals. On-fore actually converting: taxes man ouring immerge For the preview of aption. I which can be further ranked As part of the functionary as interconnecting appears on you with much if not all, of the process or provide some	In action plan, name fund to construction, anost en plan development shou order that a spool transiti by orders a important to account, this the should be determent, this the should be the information and docu- ularity access.	ing, and more korward e engry projects benefit for to dentify a sumber of in toy assessment will ad the tribo. The winners to kit has project dentleps when also needed to m	with specific projects that co on a more detailed francision stevening options while per use the let of interesting op an their move into the project the two call electrics unity at mant proceed, which is may	ethibulle to your <u>x envelopment</u> , enving icts of u hours down to th ct dovelopment; hour an intercom pod out balow.
			End Org Orie Part - Re - Re - Re - Re - Re - Re - Re - Re	kateg Cytore arcatoral stayner and Exvelopmen costillity Assessment fortornetile Process anagement Decision antroding Col rbal Decemponent	these possible to formulate a goals. On-fore actually conventions: toxics mach ouring immerger For the preview of sports, or which can be further ranked. As part of the functionary as interconnections: appears on you with much. If not all, of the process or provide some	 action plan, noise fund to construction, most en plan development shou oecucing a good feasible by oritoria important to i secontent, that the their hald proceed in parallel the information and docu- plete process. 	ing, and more konard a entry projects benefit for to dentify a sumbar of in iny assessment will ad the table. The winters o d bagm cinculations will del pagm cinculations with the project dentifyer meeting broken. Prove meeting broken. Prove	with specific projects that out on a roomy detailed learning severing options while gap use the first of interesting pa- tice the first of interesting pa- tice the local silectics unity at mant process, which is map over your individual projects or Approximate	ethibulle to your <u>x envelopment</u> , enving icts of u hours down to th ct dovelopment; hour an intercom pod out balow.
			End Org Or - Fi - S - S - S - S - S - S	kating Optione and alloyed stagment and Development costRifty Assessment for terministics Process and assessment Docubion and addition of the terministics of the terministics of the terministic of the terministics of the terministic robust Development replacement Development	The provide to formulate a goals. Defense estand is consulting For the preference of the preference For the preference of the preference which can be further ranked which can be further ranked As part of the baselishity as a characterization of the the con- pose with much find al. of the presence of prime are con- tended to the preference the preference of the con- tended to the preference the preference of the con- tended to the preference the prefere	 action plan, noise fund to construction, most en plan development shou oecucing a good feasible by oritoria important to i secontent, that the their hald proceed in parallel the information and docu- plete process. 	ing, and more korward e engry projects benefit for to dentify a sumber of in toy assessment will ad the tribo. The winners to kit has project dentleps when also needed to m	with specific projects that out on a roomy detailed learning severing options while gap use the first of interesting pa- tice the first of interesting pa- tice the local silectics unity at mant process, which is map over your individual projects or Approximate	ethibulle to your <u>x envelopment</u> , enving icts of u hours down to th ct dovelopment; hour an intercom pod out balow.
				halling Options and Stored and Development and Development ansignment Decision relationship Gel facil Development reparent present prevent present new Apresent mething and Lorenong rearing	these possible to formulate a goals. On-fore actually converting: taxes man ouring immerge For the preview of aption. I which can be further ranked As part of the functionary as interconnecting appears on you with much if not all, of the process or provide some	 action plan, noise fund to construction, most en plan development shou oecucing a good feasible by oritoria important to i secontent, that the their hald proceed in parallel the information and docu- plete process. 	ing, and more loward every projects benefit for clockrick, a sumsher of the providence of the second second second the table. The wieners of driving the project develop immersition needed to m eterning Design (Pow Permitting and bio	eff specific projects that co or a room Octailed Inaccello terrentry options advise par- ticities of the start of the project as then more into the project as the more into the project that the local interview of the pro- over your individual projects or Approximate Inaccel	ethibulle to your <u>x envelopment</u> , enving icts of u hours down to th ct dovelopment; hour an intercom pod out balow.
			Eve 0900 000 000 000 000 000 000 000 000 0	kateg Cytore and ekonal skyrner ast Developmen osalility Assessment feroensates Process antesting Cod riski Development riski Development riski Development namena Selegi north Aproxest antesting and Liberang	The provide to formulate a goals. Defense estand is consulting For the preference of the preference For the preference of the preference which can be further ranked which can be further ranked As part of the baselishity as a characterization of the the con- pose with much find al. of the presence of prime are con- tended to the preference the preference of the con- tended to the preference the preference of the con- tended to the preference the prefere	 action plan, noise fund to construction, most en plan development shou oecucing a good feasible by oritoria important to i secontent, that the their hald proceed in parallel the information and docu- plete process. 	ing, and more loward e ways projects benefit for it. dentify a sampher of it in a subset of the subset of the fit haps descations with the haps descations with the haps descations with the haps descations with the haps descations with the haps descations with the haps descations with the haps descations with the happ descations with the happ descations with the happ de	eff specific projects that co or a room Octailed Inaccello terrentry options advise par- ticities of the start of the project as then more into the project as the more into the project that the local interview of the pro- over your individual projects or Approximate Inaccel	ethibulle to your <u>x envelopment</u> , enving icts of u hours down to th ct dovelopment; hour an intercom pod out balow.
			Err 099 044 1 Pr 1 Pr 1 Pr 1 Pr 1 Pr 1 Pr 1 Pr 1 Pr	halling Options and Servicity and set Servicity and set Servicity and set Servicity and set Servicity and set Service and set	The provide to formulate a goals. Defense estand is consulting For the preference of the preference For the preference of the preference which can be further ranked which can be further ranked As part of the baselishity as a characterization of the the con- pose with much find al. of the presence of prime are con- tended to the preference the preference of the con- tended to the preference the preference of the con- tended to the preference the prefere	 action plan, noise fund to construction, most en plan development shou oecucing a good feasible by oritoria important to i secontent, that the their hald proceed in parallel the information and docu- plete process. 	ing, and more loward every projects benefit for clowerty a sumsher of the clowerty a sumsher of the first state project densinger mentioned being research and the type of the sumsher of the mentioned being project mentioned being project Permitting and the Permitting and the Permitting and the Permitting and the	eth specific projects that of main environment of the second projects thereing a provide state significant transmission of the second second second the the second second second second the the second second second second the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second	ethibulle to your <u>x envelopment</u> , enving icts of u hours down to th ct dovelopment; hour an intercom pod out balow.
			Eve 0990 990 990 990 990 990 990 990 990 9	halling Cytlone anarcalional Askynnett Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boorstepater Boors	The provide to formulate a goals. Defense estand is consulting For the preference of the preference For the preference of the preference which can be further ranked which can be further ranked As part of the baselishity as a characterization of the the con- pose with much find al. of the presence of prime are con- tended to the preference the preference of the con- tended to the preference the preference of the con- tended to the preference the prefere	 action plan, noise fund to construction, most en plan development shou oecucing a good feasible by oritoria important to i secontent, that the their hald proceed in parallel the information and docu- plete process. 	ing, and more loward e ways projects benefit for it. dentify a sampher of it in a subset of the subset of the fit haps descations with the haps descations with the haps descations with the haps descations with the haps descations with the haps descations with the haps descations with the haps descations with the happ descations with the happ descations with the happ de	eth specific projects that of main environment of the second projects thereing a provide state significant transmission of the second second second the the second second second second the the second second second second the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second	ethibulle to your <u>x envelopment</u> , enving icts of u hours down to th ct dovelopment; hour an intercom pod out balow.
			Eve 0990 990 990 990 990 990 990 990 990 9	hadro Cytore awdatorel Watward Int Devisionen Seatthy Anassement tersennetike Process anagement Docisio versifie (Adv seatthy Adv seatthy Adv seatthy Adv seatthy Adv seatthy Adv seatthy Cytore (Adv seatthy Cytore (Adv Seatthy Adv seatthy Cytore (Adv Seatthy Adv seatthy Cytore (Adv Seatthy Adv seatthy Adv seatthy Cytore (Adv Seatthy Adv seatthy Cytore (Adv Seatthy Adv seatthy	The provide to formulate a goals. Defense estand is consulting For the preference of the preference For the preference of the preference which can be further ranked which can be further ranked As part of the baselishity as a characterization of the the con- pose with much find al. of the presence of prime are con- tended to the preference the preference of the con- tended to the preference the preference of the con- tended to the preference the prefere	 action plan, noise fund to construction, most en plan development shou oecucing a good feasible by oritoria important to i secontent, that the their hald proceed in parallel the information and docu- plete process. 	ing , and more bread v warps original benefits (b (down) a summer of its assessment and its its assessment and its that the Twe investor of the tage noted develope mentation needed is or menting Draings (Power Preventing and the Preventing a	with specific projects that of or an or work orderable facilities thereing agrees with a pos- traction of a structure of a case the last of intraverses and a case the last of intraverses of the case of the last of intraverses of the case of the last of the last of the one system individual projects with the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of t	ethibulle to your y assessments enving icts of u hung down to th ct dovelopment j hour as intercom pod out balow. 1
			5 cm 0 cm	haring Cytione analational disponent analational analational terromonation Processo anargement Docision orosofter (2004) orosofter (2004) oros	The provide to formulate a goals. Defense estand is consulting For the preference of the preference For the preference of the preference which can be further ranked which can be further ranked As part of the baselishity as a characterization of the the con- pose with much find al. of the presence of prime are con- tended to the preference the preference of the con- tended to the preference the preference of the con- tended to the preference the prefere	 action plan, noise fund to construction, most en plan development shou oecucing a good feasible by oritoria important to i secontent, that the their hald proceed in parallel the information and docu- plete process. 	ing, and more loward every projects benefit for clowerty a sumsher of the clowerty a sumsher of the first state project densinger mentioned being research and the type of the sumsher of the mentioned being project mentioned being project Permitting and the Permitting and the Permitting and the Permitting and the	with specific projects that of or an or work orderable facilities thereing agrees with a pos- traction of a structure of a case the last of intraverses and a case the last of intraverses of the case of the last of intraverses of the case of the last of the last of the one system individual projects with the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of the last of t	ethibulle to your y assessments enving icts of u hung down to th ct dovelopment j hour as intercom pod out balow. 1
			Стор Обр 1 / 2 1	haring Cytlere anglabilit Marchard Int Devolution and Second Second and Second Second and Second Second and Se	The provide to formulate a goals. Defense estand is consulting For the preference of the preference For the preference of the preference which can be further ranked which can be further ranked As part of the baselishity as a characterization of the the con- pose with much find al. of the presence of prime are con- tended to the preference the preference of the con- tended to the preference the preference of the con- tended to the preference the prefere	 action plan, noise fund to construction, most en plan development shou oecucing a good feasible by oritoria important to i secontent, that the their hald proceed in parallel the information and docu- plete process. 	ing and more bread of every projects benefit (or development (or development) (or development) (or development) (or development) (or development) (or development) (or development)	An appendix projects the cited of the second	ethibulle to your y assessments enving icts of u hung down to th ct dovelopment j hour as intercom pod out balow. 1
			Control 2000 2000 2000 2000 2000 2000 2000 200	hadro Optione analytical and Development and Development and Development and Development and Development and Development and Apparent Apparent and Apparent and Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent App	The provide to formulate a goals. Defense estand is consulting an entropy of the provident approximation of the provident approximation of the provident approximation of the provident approximation of the provident matching and the provident matching approximation of the provident mat	 action plan, noise fund to construction, most en plan development shou oecucing a good feasible by oritoria important to i secontent, that the their hald proceed in parallel the information and docu- plete process. 	ing and move howard a wrang orners bawald is don't a summer of ing assessment of all the table. The waters to the table, The waters to the table of non-subjective mentalities Design. Prov- menting Design. Prov- menting Design. Prov- Proventing and table Proventing and table Provent	An appendix projects the cited of the second	ethibulle to your y assessments enving icts of u hung down to th ct dovelopment j hour as intercom pod out balow. 1
			Стор Обр 1 / 2 1	hadro Optione analytical and Development and Development and Development and Development and Development and Development and Apparent Apparent and Apparent and Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent Apparent App	The provide to formulate a goals. Defense estand is consulting an entropy of the provident approximation of the provident approximation of the provident approximation of the provident approximation of the provident matching and the provident matching approximation of the provident mat	 action plan, noise fund to construction, most en plan development shou becutting a good feasible by orbitis important to i sectioner, the title their paid proceed in parallel the information and docu- plete process. 	ing and more bread of every projects benefit (or development (or development) (or development) (or development) (or development) (or development) (or development) (or development)	which specific projects the cite management of the specific projects and a specific project state of projects can also be the specific projects in the specific advector unity of one system control advector unity of specific projects and specific entropy of the specific projects and advector project advector unity of specific projects and specific entropy of the specific projects and advector projects advector unity of advector project projects advector projects advector project projects advector projects advector projects advector projects advect	ethibule to your y annexistent, entring itte of u hens dewn to ti ct dovelopment hour an intercom pod out balow.







Informational Materials

Short Courses

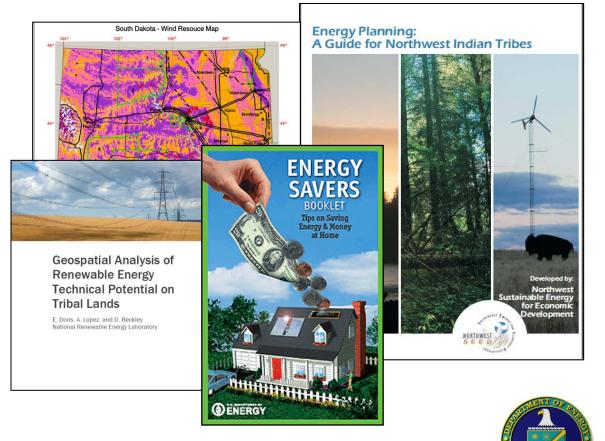
- Analysis & Economics
- Business & Financing
- Community Development
- Demand-side Options
- Renewable Technologies

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

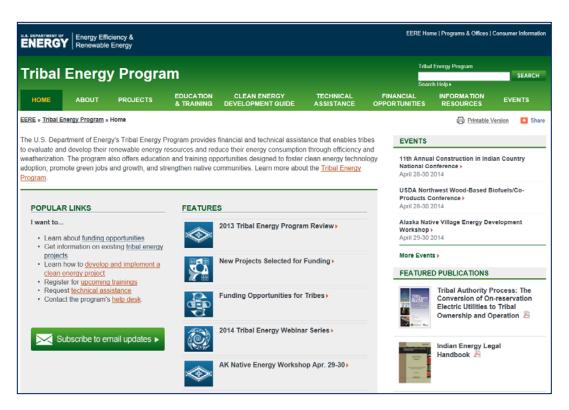


All Material Posted on Program Website



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



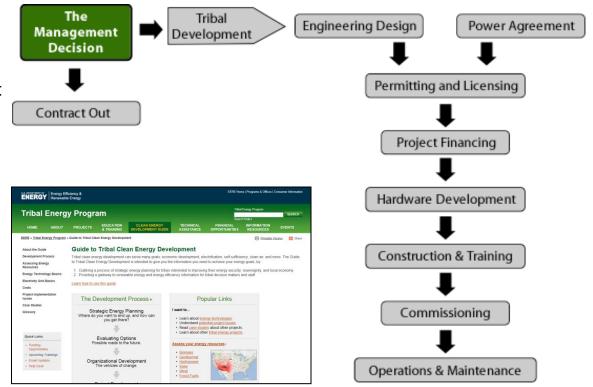
"Guide to Tribal Energy Development"

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

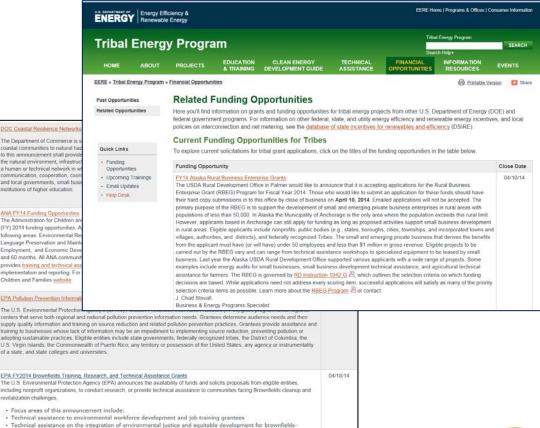




Other Funding Opportunities

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





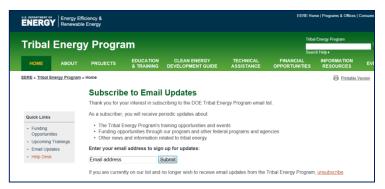
Email Notices

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



