DOE OFFICE OF INDIAN ENERGY

DOE Indian Energy Program Overview

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U.S. DEPARTMENT OF ENERGY | Office of Indian Energy

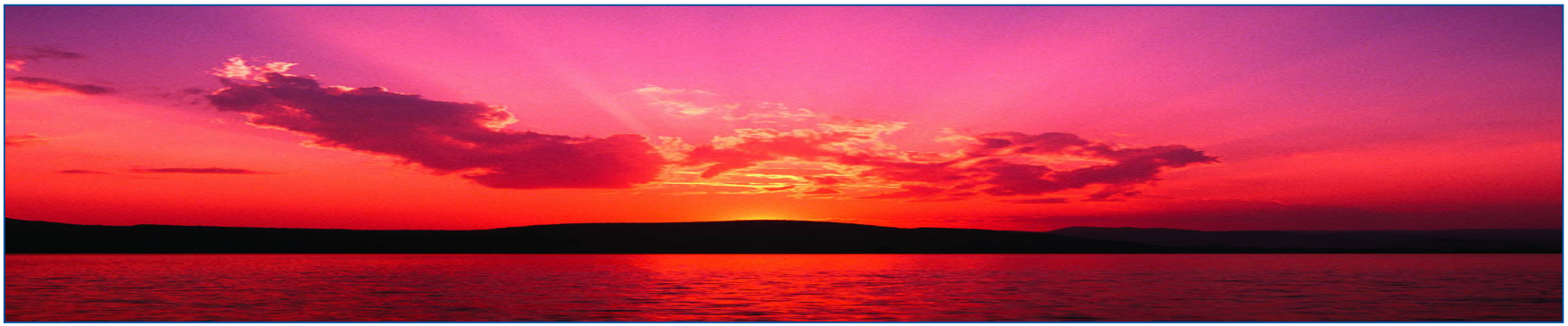
November 10, 2018

Statutory Authority

The DOE Office of Indian Energy is charged by Congress under the **Indian Tribal Energy Development and Self Determination Act of 2005** (Energy Policy Act of 2005 (EPAct 2005), Title V, codified at 42 USC § 15801) to "**provide, direct, foster, coordinate, and implement energy planning, education, management, conservation, and delivery programs that –**

(1) promote Indian tribal energy development, efficiency, and use;
(2) reduce or stabilize energy costs;
(3) enhance and strengthen Indian tribal energy and economic infrastructure relating to natural resource development and electrification; and
(4) bring electrical power and service to Indian land and the homes of tribal members located on Indian lands or acquired, constructed, or improved (in whole or in part) with Federal funds."

Statutory Authority



Indian Energy Education Planning and Management Assistance (25 USC § 3502(b))

‘‘(1) The Director shall **establish programs to assist consenting Indian tribes in meeting energy education, research and development, planning, and management needs**.

‘‘(2) In carrying out this subsection, the Director **may provide grants, on a competitive basis, to an Indian tribe or tribal energy resource development organization for use in carrying out—**

- ‘‘(A) energy, energy efficiency, and energy conservation programs;
- ‘‘(B) studies and other activities supporting tribal acquisitions of energy supplies, services, and facilities, including the creation of tribal utilities to assist in securing electricity to promote electrification of homes and businesses on Indian land;
- ‘‘(C) planning, construction, development, operation, maintenance, and improvement of tribal electrical generation, transmission, and distribution facilities located on Indian land; and
- ‘‘(D) development, construction, and interconnection of electric power transmission facilities located on Indian land with other electric transmission facilities.

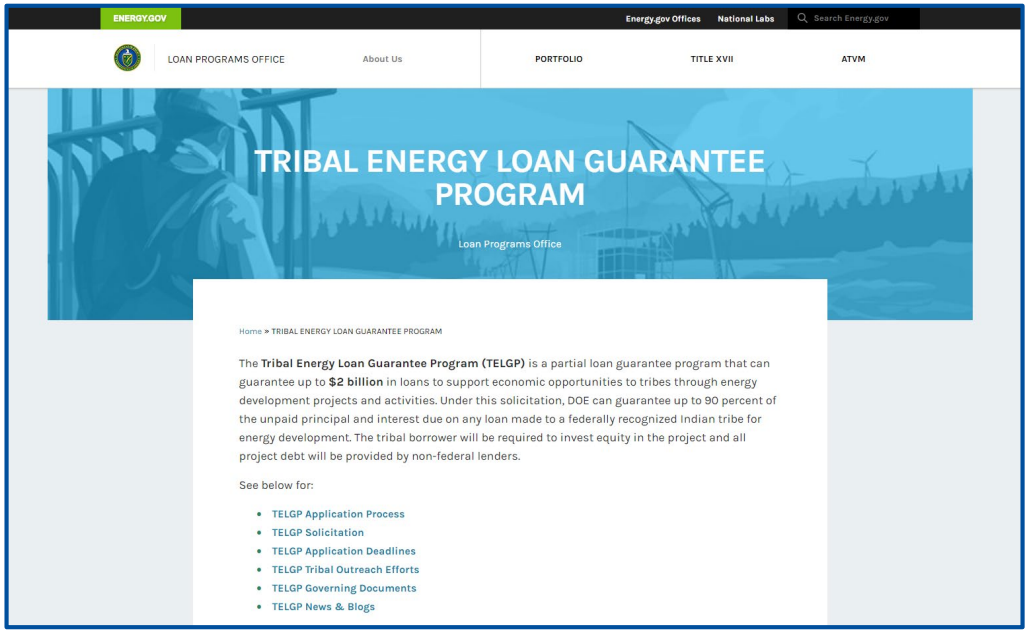
Statutory Authority

Under the Department of Energy Loan Guarantee Program (25 USC § 3502(c))

Secretary of Energy may provide loan guarantees for an amount equal to not more than 90 percent of the unpaid principal and interest due on any loan made to an Indian tribe for energy development.

Key features:

- $2 billion in partial loan guarantees
- Structured for DOE and eligible lender partnership



APPLICATION PROCESS

HOW TO APPLY

Similar to the Financial Institution Partnership Program (FIPP) previously used by LPO and other federal credit programs, tribes will apply to an eligible lender, which will in turn apply to DOE for the partial guarantee. The borrower will be the tribe. Interested applicants and borrowers are encouraged to:

1. Read the **solicitation** in its entirety.

2. Engage with DOE's Loan Origination Division prior to applying for a loan guarantee by emailing **TELGP@hq.doe.gov** or by phone at 202-586-1262.

Applicants that are prepared to apply can do so through DOE's **online loan application portal**.

HOW CAN WE HELP?

Questions about TELGP eligibility or application process? Contact us at TELGP@hq.doe.gov or 202-586-1262.

ELIGIBLE BORROWERS

All loans guaranteed under TELGP must be made to eligible Indian tribes or entities, including Alaska Native village or regional or village corporations, or other financial institutions or tribes meeting certain criteria established by DOE, that are able to demonstrate being eligible for the special programs and services provided by the United States to Indians because of their status as Indians, or their wholly-owned entities with appropriate legal authority. Please read the **solicitation** for further information about eligible borrowers.

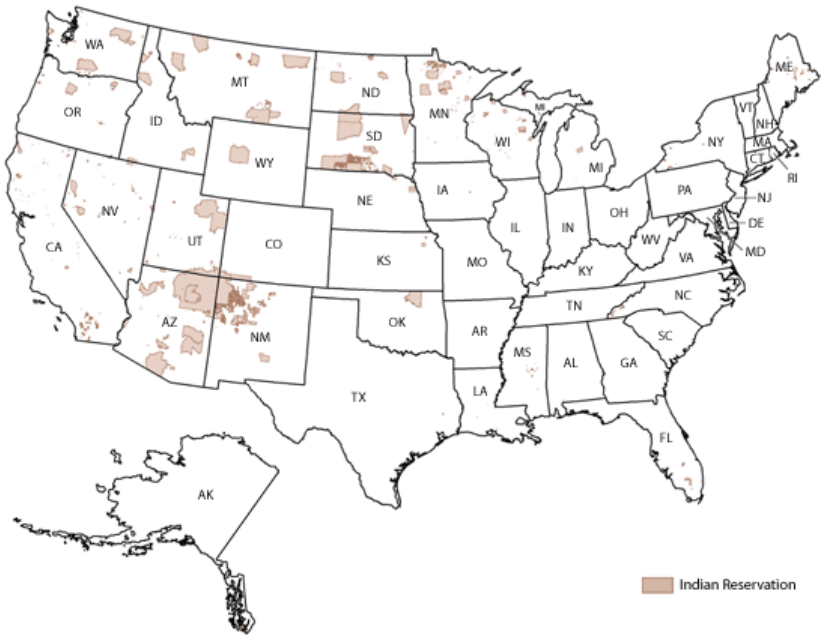
ELIGIBLE LENDERS

An eligible lender would be a federally regulated commercial bank, other financial institution or a tribe satisfying requirements established by DOE, that is able to demonstrate experience and capability to evaluate, underwrite, and negotiate energy development loans, similar to the proposed loan with its tribal customers, and should only apply for a guarantee if the proposed loan satisfies

Vast Underdeveloped Resources

- 86% of Indian lands with energy or mineral resources remain untapped
- 15 million acres of potential energy and mineral resources on Indian lands are undeveloped
- Only 2.1 million acres of Indian land are being tapped for their energy resources
- Reservations contain:
  - 30% of the coal reserves west of the Mississippi
  - 50% of uranium reserves, and
  - 20% of known oil and gas reserves

573 Federally Recognized Tribes



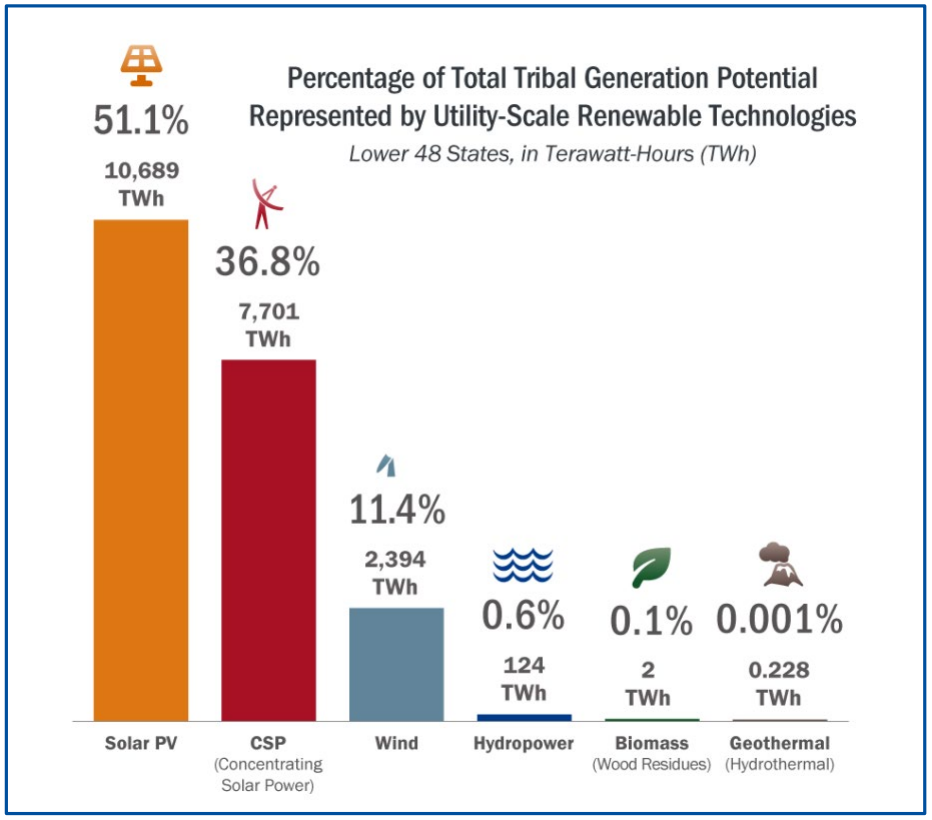
Tribal Trust Land Comprises 57 Million Acres

(2012 GAO report)

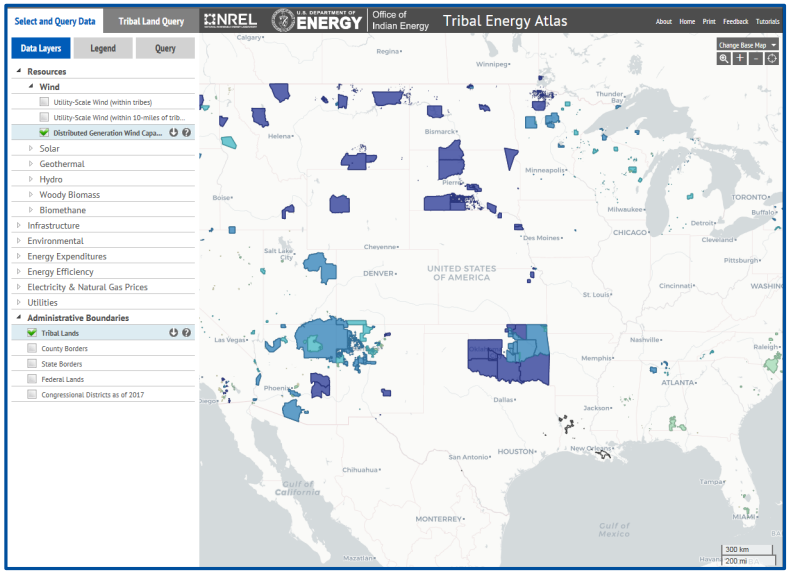
Techno-Economic Potential

Key results from this techno-economic potential analysis include:

- While tribal lands make up approximately **5.8% of the land area** in the conterminous United States, the estimated **utility-scale renewable energy technical potential** on these lands is **6.5% of the total national potential.**



New Interactive Tool Puts Tribal Energy Resource Data in Tribes' Hands



Barriers to Energy Development

- Indian tribes and tribe-owned businesses are non-taxable entities and thus are **not eligible to receive federal or state tax incentives**, including tax credits, deductions, or other tax subsidies currently used to stimulate energy deployment.

- According to a 2012 study by the Board of Governors of the Federal Reserve System, Indian tribes also face a multitude of challenges in economic and business development in Indian Country. Among the key challenges are a

  - **Lack of access to capital and**

  - **Underdeveloped physical infrastructure**

Barriers to Energy Development

Most Significant Barriers (Ranked Order)*
Financing / Funding
Infrastructure
Tribal Leadership / Staff
Customer
Partnerships
Community vision & Stakeholder buy-in & Cultural acceptance
Depends on Regulation, Incentives, Energy Market
Permitting
Strategic Energy Planning
Federal policy & programs

* Jones, T., Necefer, L. (2016). Identifying Barriers and Pathways for Success for Renewable Energy Development on American Indian Lands (SAND2016-311J). Sandia National Laboratories (SNL-NM), Albuquerque, NM (United States).

Program Mission

To maximize the development and deployment of strategic energy solutions that benefit tribal communities by providing American Indians and Alaska Natives with the knowledge, skills, and resources needed to implement successful strategic energy solutions.

Clockwise from top right: **Seneca Nation's** (NY) 1.5 MW wind turbine, **Fort Yukon's** (AK) combined heat and powerhouse, **Coeur d'Alene Tribe's** (ID) Benewah Market energy efficiency project, **Sokaogon Chippewa Community** (WI) Housing Project, and **Chippewa Cree Tribe's** (MT) Residential Solar.

ICEIWG

The Indian Country Energy and Infrastructure Working Group (ICEIWG) works collaboratively with the DOE Office of Indian Energy to assist in surveys, analysis, and recommendations related to program and policy initiatives that fulfill DOE's statutory authorizations and requirements.

May 2018 ICEIWG meeting at Sandia National Laboratories

Performance Measures

DOE Strategic Objective 5: Increase domestic and international accessibility to American energy resources

Office of Indian Energy Performance Measures towards DOE Strategic Objective 5:

- Between FY 2019 and the end of FY 2022, install approximately 25MW of cumulative new generation capacity on tribal lands
- Between FY 2019 and the end of FY 2022, achieve energy cost savings of $550 million for tribal communities

Deployment Program

Education and Capacity Building

Thorough regional workshops, webinars, and college student internships, we support tribal efforts to build internal capacity to develop energy projects and navigate energy markets.

Technical Assistance

We provide federally recognized Indian tribes, including Alaska Native villages, regional and village corporations, tribal energy resource development organizations, and other tribal groups and communities, with technical assistance to advance tribal energy and infrastructure projects.

Access to Capital

We facilitate access to capital for energy project development through financial assistance, including competitively awarded grants, authorized loan program and innovative financing strategies.

Access to Capital

- **Financial Assistance**

  Focused on community and facility hardware deployment

- **Innovative Financing Strategies**

  Predominately implemented through grants, capacity building, recent roundtables, and research

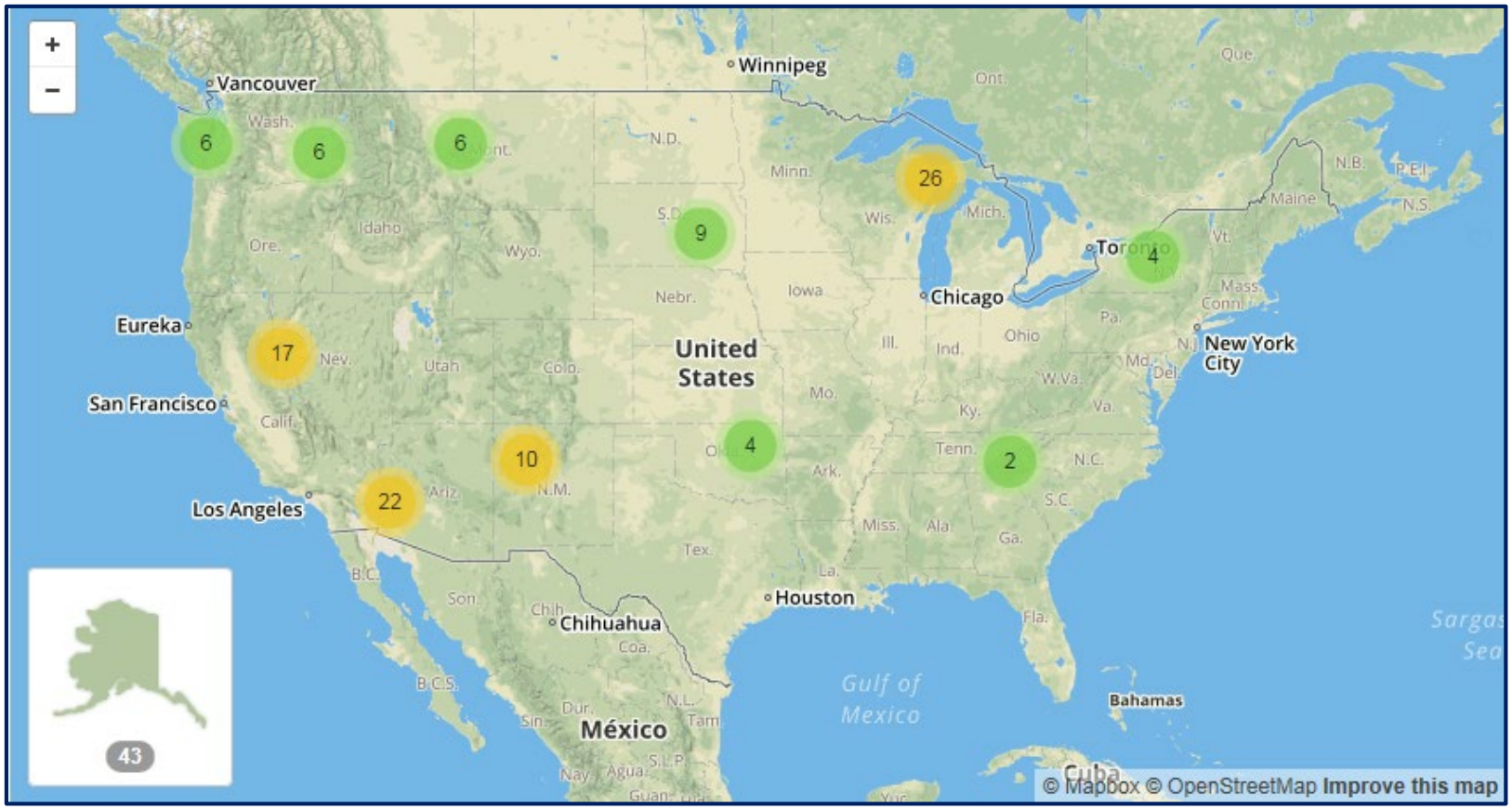
- **Loan Guarantee Program**

  Authorized in 2005. Funds appropriated FY2017

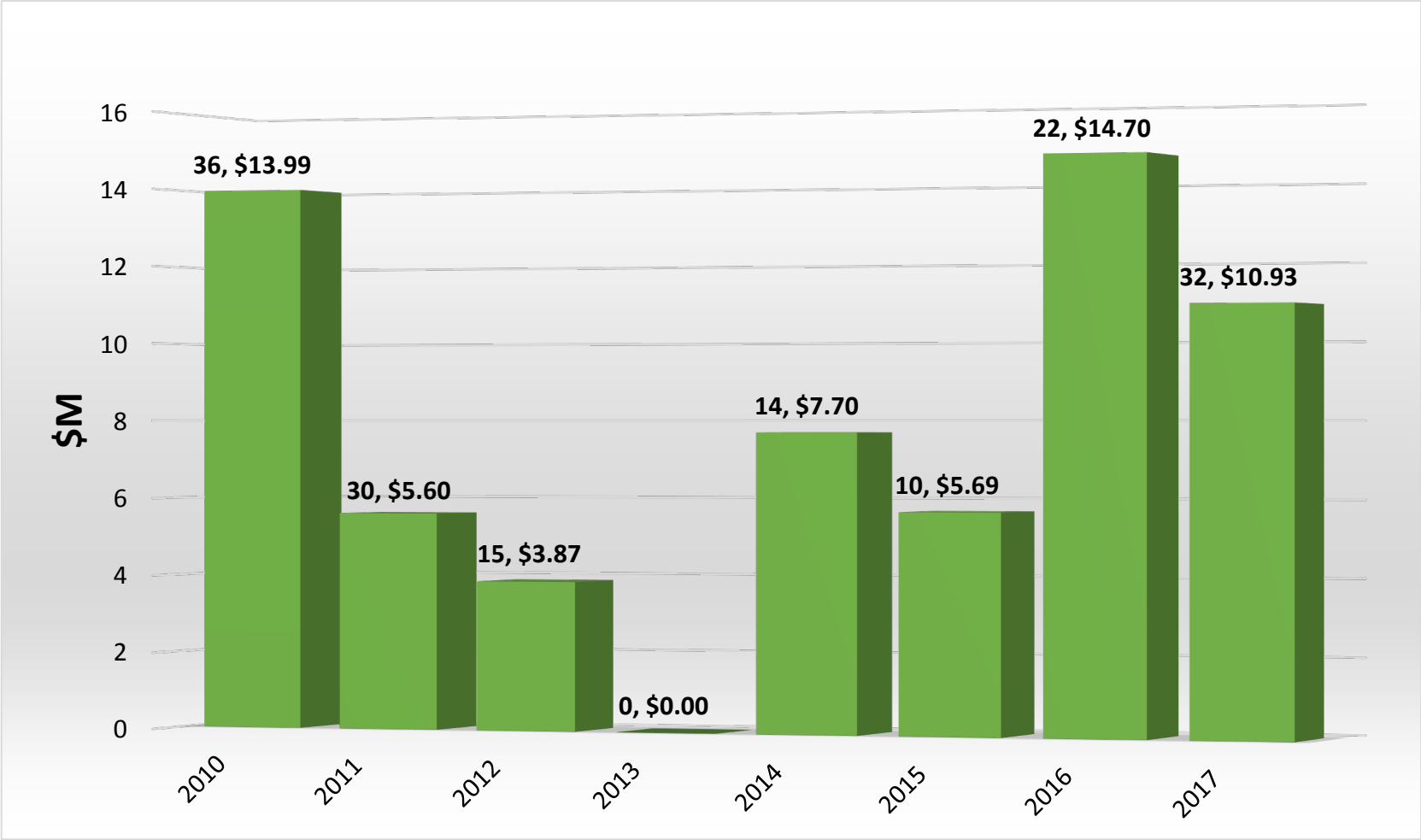
Financial Assistance

Clockwise from top right: **Nunamiut people** of Anaktuvuk Pass (AK); **Assiniboine & Sioux Tribes** (MT); **Picuris Pueblo** (NM); **Tonto Apache Tribe** (AZ); **Chaninik Wind Group** (AK); **Assiniboine & Sioux Tribes** (MT); and in the center, **Pueblo of Laguna** (NM).

Invested more than $62.5 million in nearly 160 tribal energy projects valued at more than $130 million *(2010-2017)*



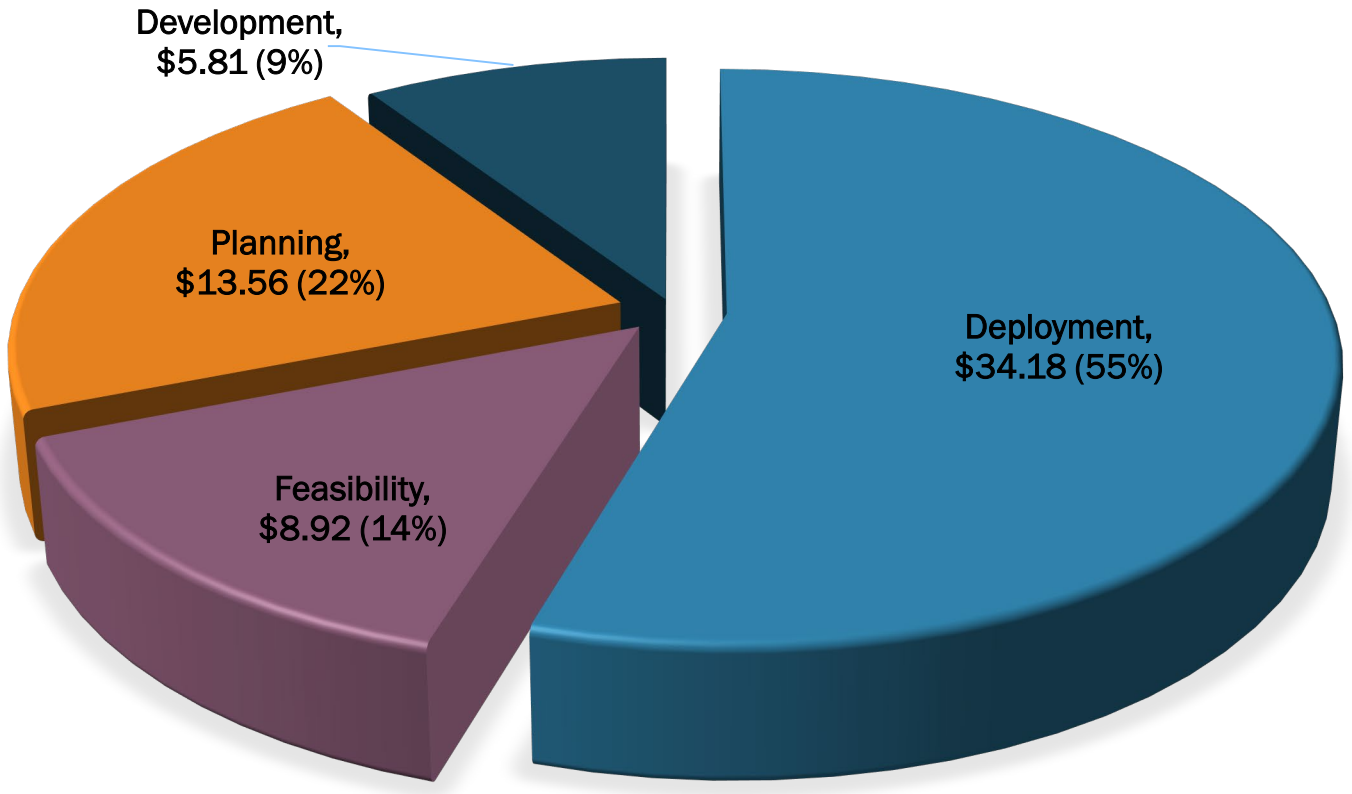
Financial Assistance Funding History



Average of ~$7.8 million per year

DOE Investment by Award Type (Millions)

More than $62.5 million invested in nearly 160 tribal energy projects *(2010-2017)*



Financial Assistance

Competitive Process (2010-2017)

- **14 Funding Opportunity Announcements issued***
- **Accepted a total of 548 applications** (valued at $449 million)
- **Funded 92% of all meritorious applications** (Total of 160 out of 174)
- **Funded ~30% of all applications received** (160 out of 548)
  DOE average is ~5 to 10%
- **Funded 118 different tribal entities** (21% of all 573 Indian tribes)

All Funds Awarded through a Competitive Process

*** Includes FOA's issued in 2009 for 2010 award.**

POSITIONING TRIBES TO THRIVE

DOE-Funded Tribal Energy Projects, 2010–2016

Between 2010 and 2016, the U.S. Department of Energy (DOE) Office of Indian Energy co-funded the deployment of **43** tribal energy projects valued at more than **$70 million**.

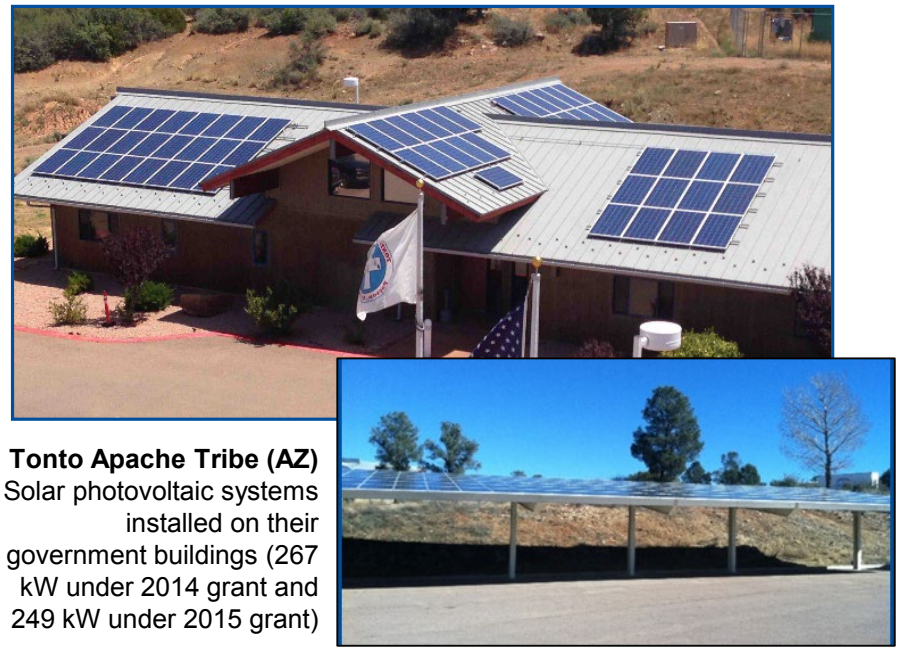
DOE invested nearly **$25 million** in these renewable energy and energy efficiency projects.

The 1-megawatt solar photovoltaic system installed on the Soboba Band of Luiseño Indians Reservation in California was co-funded by a DOE grant.

Assisting Tribes Achieve Their Energy Vision

Invested $25 million in 43 deployment projects valued at more than $70 million (2010-2017)

- Installed 18.5 MW of new generation on tribal lands
- Electricity bills reduced for more than 2,500 tribal government and community buildings and more than 29,000 tribal members
- Every $1 in DOE funding will result in $7.22 savings for those tribes
- Average annual savings of $10M and lifetime savings of a $500 million dollars.



Tonto Apache Tribe (AZ) Solar photovoltaic systems installed on their government buildings (267 kW under 2014 grant and 249 kW under 2015 grant)

Forest County Potawatomi Community(WI) 2-megawatt anaerobic digestion and biogas generation facility (May 2013)

Advancing Tribal Energy Development in Alaska

- Since 2014, **57%** of all our competitively awarded grants have been to Alaska Native villages, corporations, or intertribal organizations.
- In 2016, awards for Alaska projects represented **50%** of the total number of projects funded and **60%** of the funding provided through competitive grants.
- Since 2010, **39** Alaska Native villages (or **17%** of all 200-plus Alaska villages) have been or will be impacted by these hardware deployment projects co-funded by DOE—and many other Alaska communities are benefiting from planning grants and on-request technical assistance.

Recent Investments in Alaska Energy Projects

In 2017, the Office invested nearly **$2 million** in four hardware installation projects that will have positive impacts in six communities, including:

- A community-scale biomass project in Huslia that when complete could provide **60%** of the heat to the community's buildings and save **$57,000** annually in heating costs
- An energy efficiency project in Northway Village that is expected to reduce energy use in three tribal buildings by over **20%** and save over **$20,000** in energy costs each year
- A wind energy project that will reduce diesel fuel use in the communities of Bethel, Oscarville, and Napakiak, saving over **$1 million** each year
- An energy efficiency and wind project on Saint Paul Island that is estimated to reduce diesel fuel purchases by over **$200,000** each year.

2016-2017 Tribal Successes

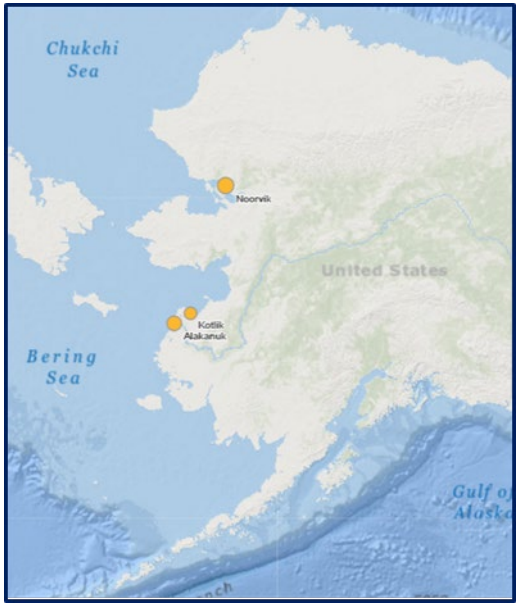
Seneca Nation of Indians (NY) installation of 1.5 MW turbine (April 2017)

Picuris Pueblo (NM) completion of the 1 MW solar photovoltaic system (October 2017)

2016-2017 Tribal Successes


Selawik, Alaska

Alaska Native Tribal Health Consortium (AK) sanitation energy efficiency retrofits for Alakanuk, Kotlik and Noorvik saving over $200,000 annually (September 2017)



Alaska Native Tribal Health Consortium (AK) upgraded sanitation facilities in Selawik reducing expenses by 32%, or about $217,227 annually (2016)

2016-2017 Tribal Successes

The **Pala Band of Mission Indians (CA**) installed a 91 kW solar system on their Fire Station which will save $52,000 each year or $1.3 million over the life of the system (May 2016)

The **Gwichyaa Zhee Gwich'in Tribal Government (AK**) installed a 18 kW solar system on the Tribal Office to save $11,338 annually (January 2016)

2016-2017 Tribal Successes

The **Bishop Paiute Tribe (CA)** Residential Solar Program with two grants from DOE will install 178 kW on 56 homes (April 2017)

Soboba Band of Luiseño Indians (CA)
1 MW solar installation (July 2016)

2016-2017 Tribal Successes

Menominee Tribal Enterprise (WI) Ribbon cutting for biomass combined heat and power system (April 2016)

Southern Ute Indian Tribe (CO) Construction completed on the 1.3 MW Oxford Solar Project (June 2017).

Rosebud Sioux Tribe (SD) installed a solar system on low-income home (August 2016)

2016-2017 Tribal Successes

Council Of Athabascan Tribal Governments and Gwitchyaa Zhee Corporation (AK) Combined Heat and Powerhouse (below) and the Old Power Plant (top) (December 2017)

Oneida Nation (WI) installed 800 kilowatts of solar photovoltaic for 6 buildings (November 2017)

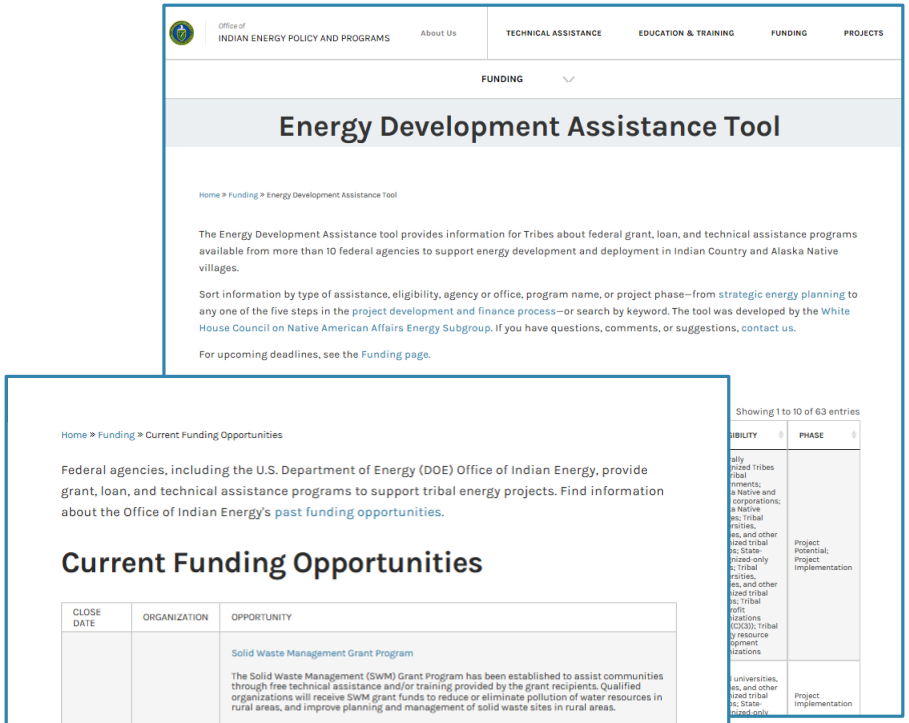
Funding Resources

- **Energy Development Assistance Tool**
  Information for Tribes about federal grant, loan, and technical assistance programs available from more than 10 federal agencies to support energy development and deployment in Indian Country and Alaska Native villages

- **Current Funding Opportunities**
  List of open tribal energy related funding opportunities from federal agencies and other sources

- **Ongoing Opportunities**
  Links to ongoing technical assistance, grant, loan and loan guarantee programs

http://energy.gov/indianenergy



Technical Assistance

On-request Technical Assistance

Technical assistance is to address a specific challenge or fulfill a need that is essential to a current project's successful implementation. The intended result of this technical assistance is a tangible product or specific deliverable designed to help move a project forward.

Types of Technical Assistance include:

- Energy Planning
- Housing and Building Energy Efficiency
- Project Development
- Resilience
- Village Power
- Policy and Regulation

Strategic Energy Planning

Utility Management Assistance

http://energy.gov/indianenergy

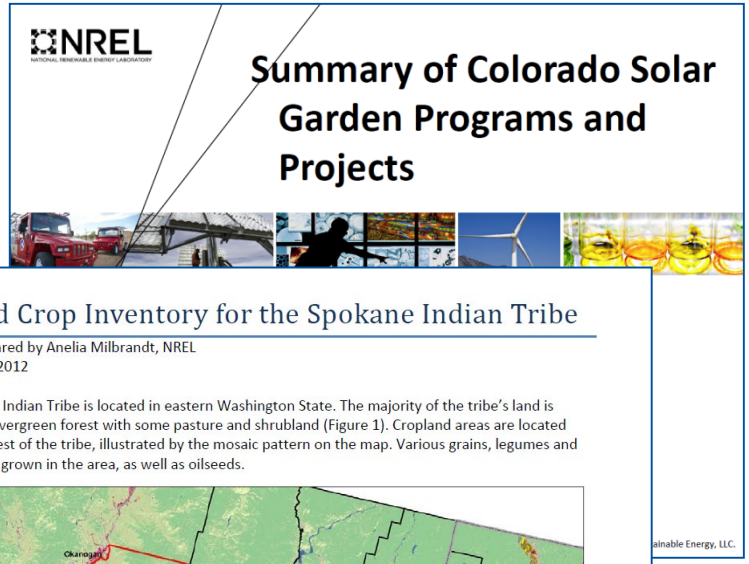
Technical Assistance

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:

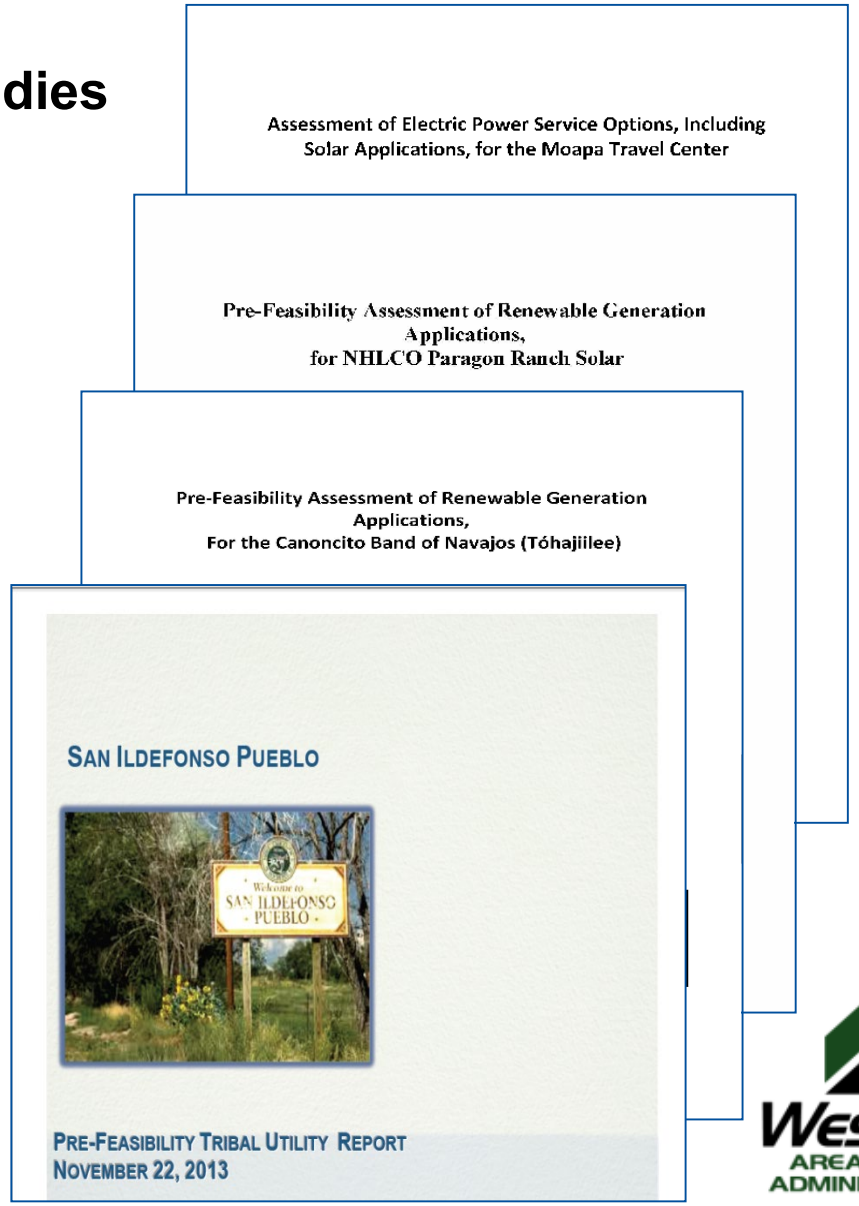
- Third-party independent reviews of transmission studies, financing structures, lease agreements, project reports, etc.
- Objective advice grounded in research and real-world experience on technologies
- Modeling and analysis (or assistance in using available modeling/analysis tools)
- Pre-feasibility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



Technical Assistance

Pre-feasibility Transmission Studies

- Northern Cheyenne Tribe (November 2017)
- Jicarilla (May 2017)
- Mesa Grande (October 2017)
- Hopi (April 2016)
- Torres Martinez (October 2015)
- Walker river (September 2015)
- Saginaw Chippewa (November 2014)
- Mesa Grande Band (October 2014)
- Turtle Mountain Band (September 2014)
- Oglala Sioux (June 2014)
- Nez Perce Tribe (December 2013)
- Ione Band (November 2013)
- San Carlos Apache (May 2013)
- Chemehuevi Tribe (May 2013)
- Ute Mountain Ute Tribe (Feb 2011)
- Hualapai Tribe (July 2010)
- Navajo Hopi Land Commission (May 2010)
- To'hajiilee (March 2010)



Western AREA POWER ADMINISTRATION

Technical Assistance Feedback

"This was very helpful! Now we have to figure out what we want to do. The study was very detailed. We appreciate the work by WAPA."

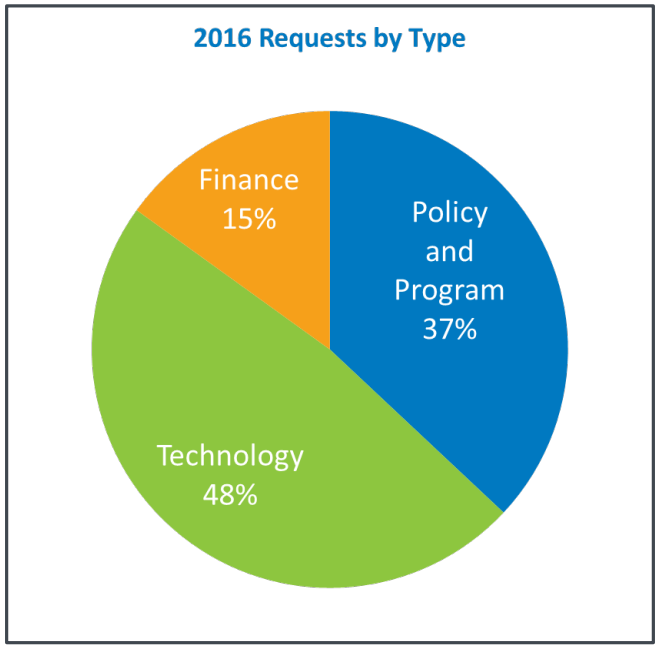
"Electricity is very expensive here. Our goal is affordability and the PCE assistance helped us move toward that goal."

"The workshop was very good. We knew we had energy resources but not how many! This also helped us understand how to better plan for our future energy needs."

"This was perfect assistance. NREL and AEA helped us find the problems and correct them. Thank you for your help."

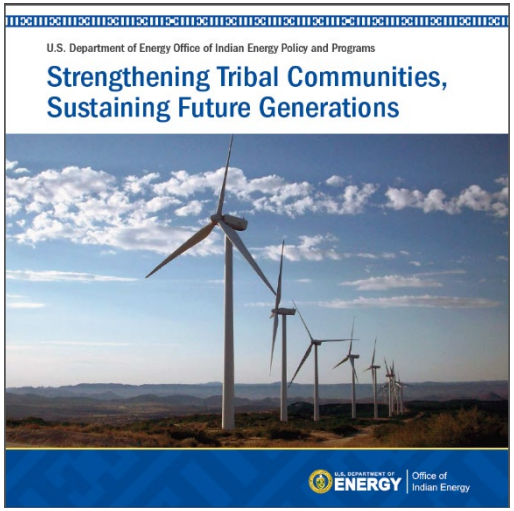
"This was so good for us! We are saving more money now so we can buy more gas to go hunting and fishing."

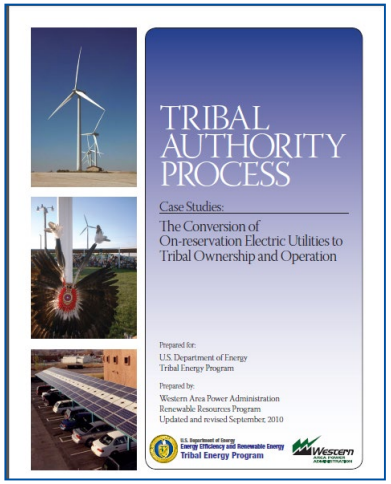
"The WAPA market analysis was very useful."

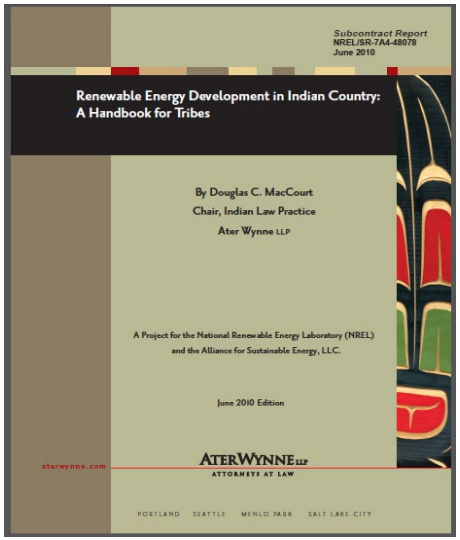


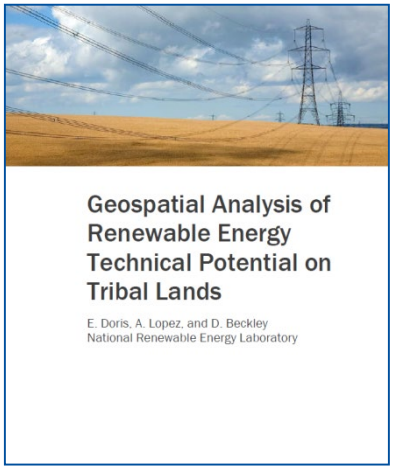
Resources

- **Information Resources**
  - **Energy Resource Library**
    Provides links to helpful resources for tribes on energy project development and financing on tribal lands. The library includes links to topically relevant publications, websites, videos, and more.
  - **Curriculum Foundational and Advanced Courses**
    Educational webinars on strategic energy planning, project development, resources technologies, and advance concepts such as business structures and financing
- **Workshops & Webinars**
  - **Monthly Webinars**
    Monthly webinars provide foundational information, resources and case studies
  - **Periodic Workshops**
    Workshop on specific topics





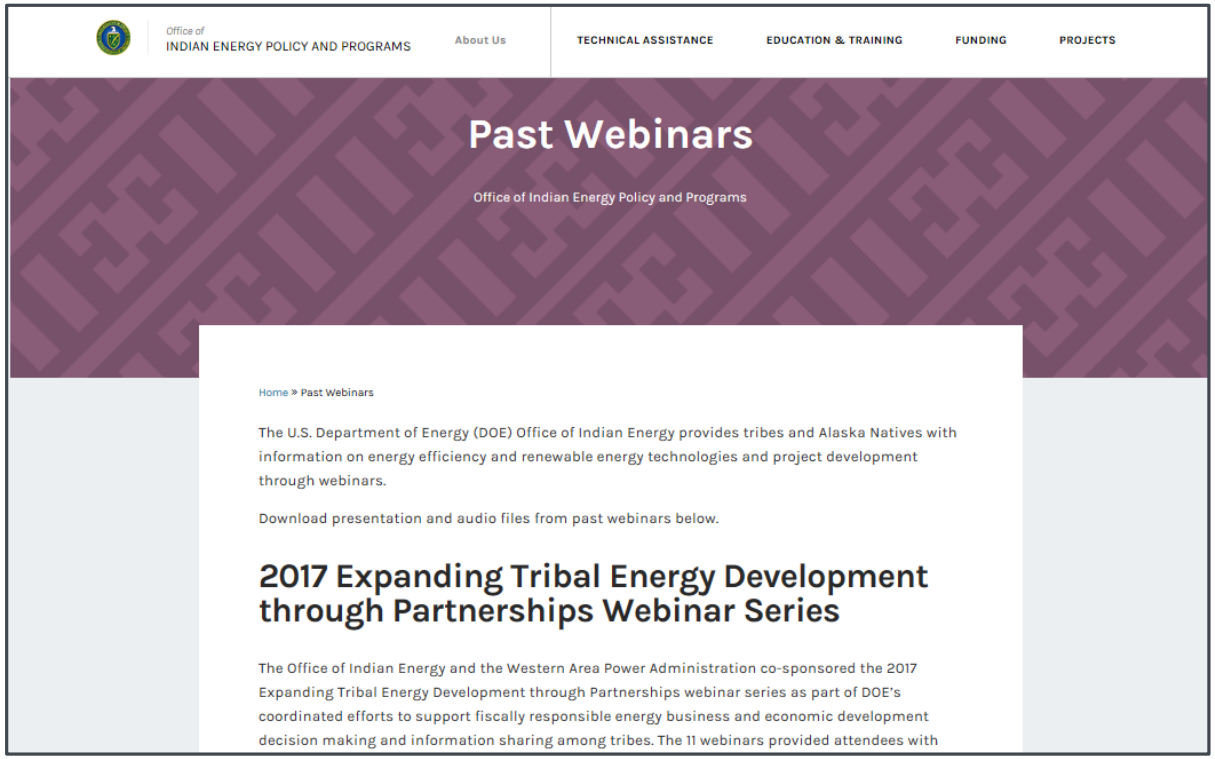




http://energy.gov/indianenergy

Monthly Webinars

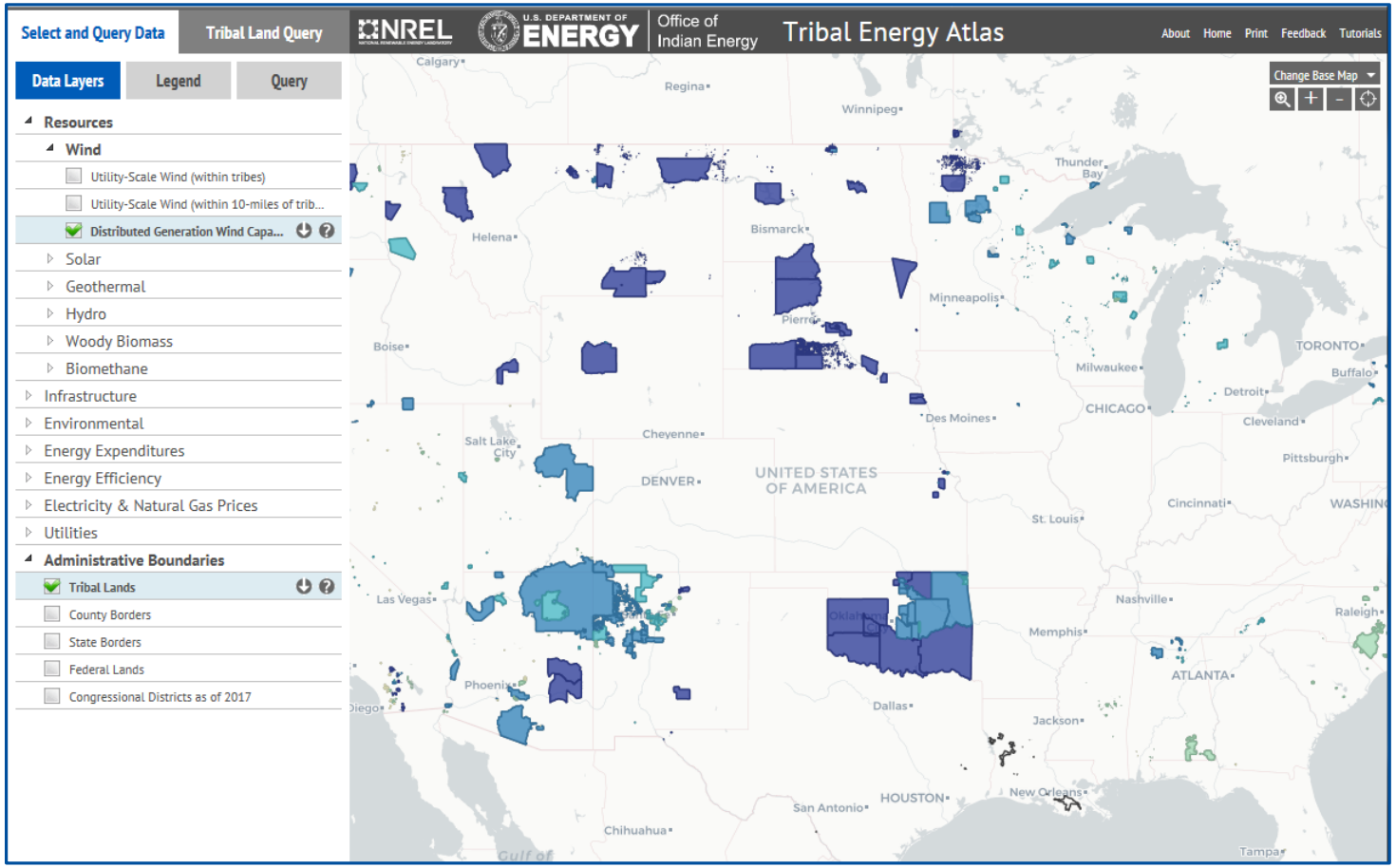
Co-sponsored by the Office of Indian Energy and Western Area Power Administration



Total of 2,140 registered and 1,215 attended the ten webinars conducted in FY 2016

Tribal Energy Atlas

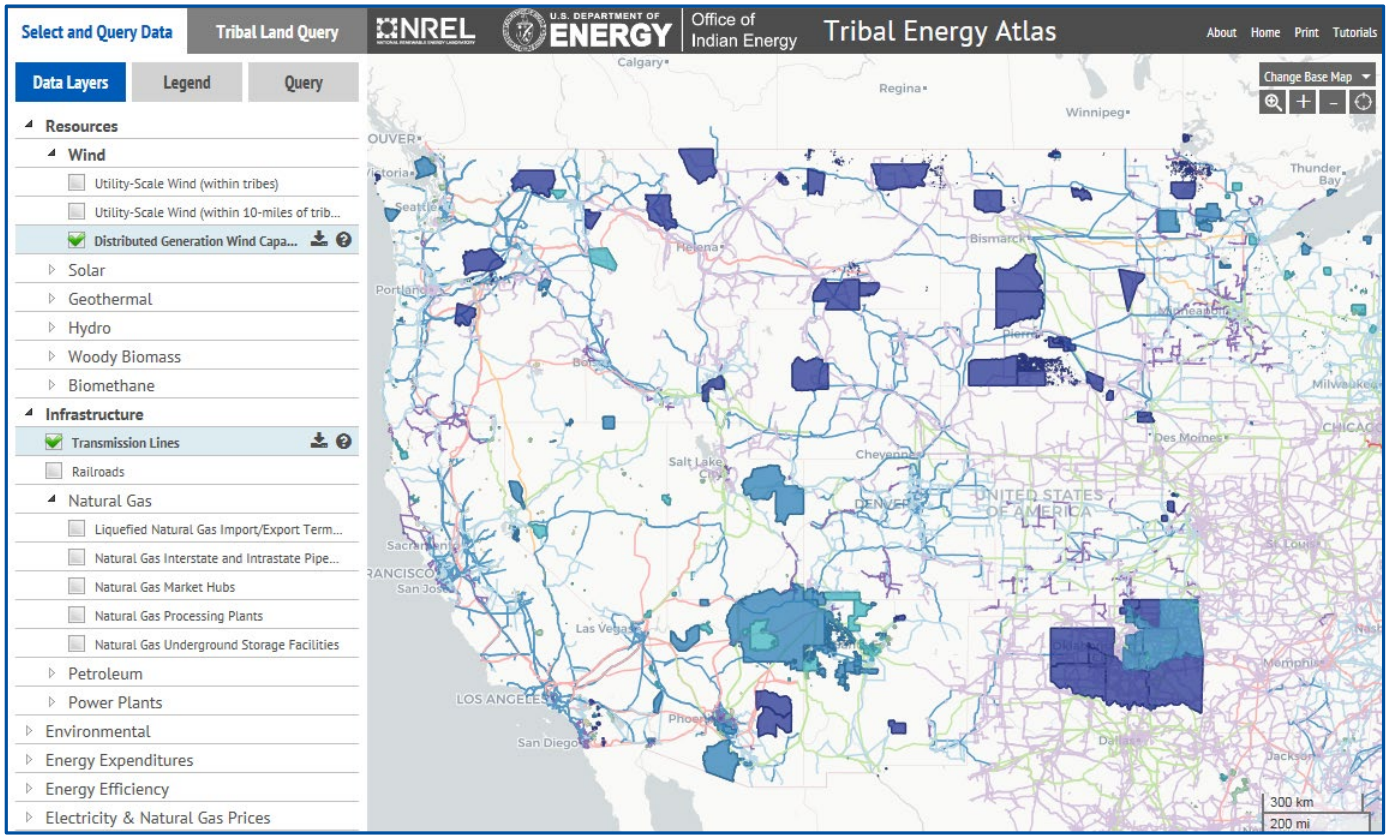
New Interactive Tool Puts Tribal Energy Resource Data in Tribes' Hands



To access, see the Indian Energy website at www.energy.gov/indianenergy

Tribal Energy Atlas

First-of-its-kind interactive geospatial application that enables tribes to conduct their own analyses of installed energy projects and resource potential on tribal lands.



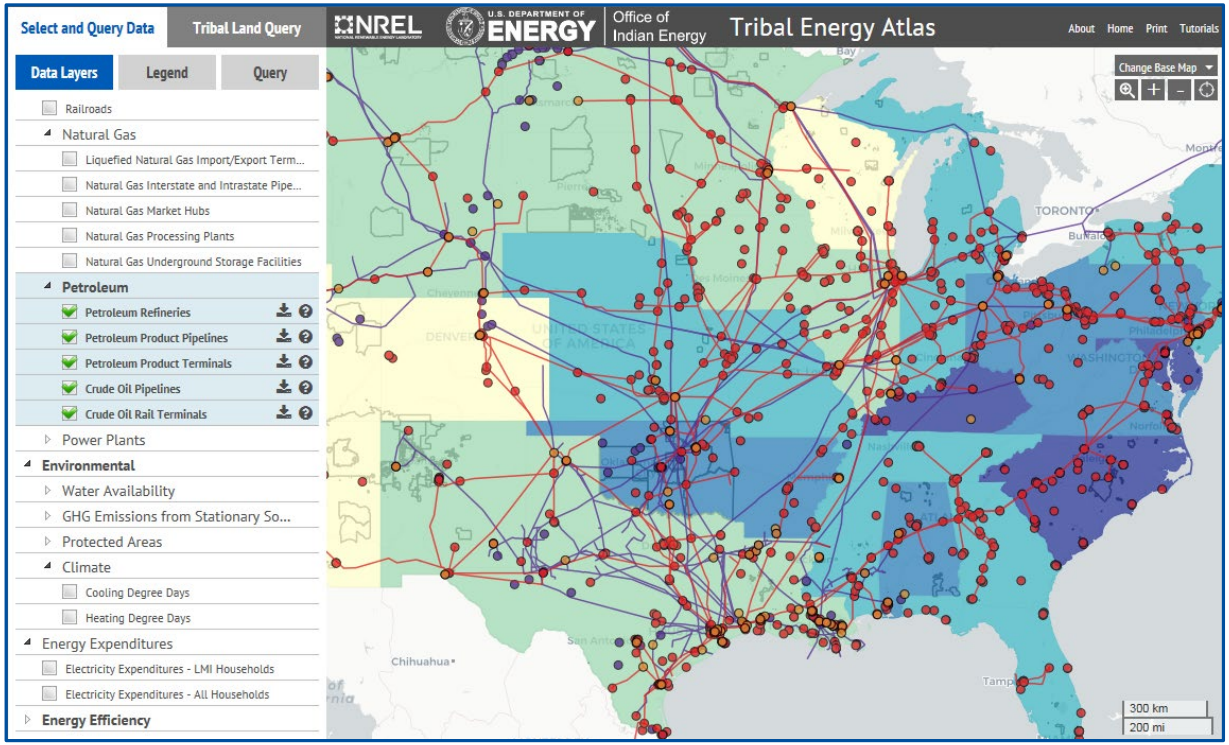
To access, see the Indian Energy website at www.energy.gov/indianenergy

Tribal Energy Atlas

Includes the most current technical and economic tribal energy potential estimates

Includes:

- Energy resource data
- Infrastructure information
- Environmental information
- Energy efficiency
- Electricity and natural gas prices



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Student Summer Internships

Program Highlights (2010-2017)

- 20 undergraduate and graduate interns
- 11 different tribal affiliations represented
- 10 different student majors
- 20% converted to year-round status
- 15% of interns hired as full-time employees or Sandia contractors

Announcement for Summer 2019 Internships Expected in January

Interns at Grand Canyon West (2010)

Interns with Sandra Begay (2014)

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)

PV System (6 kW) **at SIPI's** (NM) Science and Technology Building

Solar Installations at **Pueblo of Laguna's** Majors Ranch (NM)

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

Questions?

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Office of Indian Energy

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