Department of Energy

Mission

Ensure America’s security and prosperity by addressing its energy, environmental and nuclear challenges through transformative science and technology solutions.

- Energy
- Science and Innovation
- Nuclear Safety and Security
- Management and Operational Excellence
Department of Energy

Program Offices

- Cybersecurity, Energy Security, and Emergency Response
- Advanced Research Projects Agency – Energy
- Energy Efficiency and Renewable Energy
- Indian Energy Policy and Programs
- Environmental Management
- Office of Electricity
- Loan Program Office
- Office of Fossil Energy
- Legacy Management
- Nuclear Energy
- Office of Science
Office of Indian Energy Policy and Programs
Funds and implements activities that assist American Indian Tribes and Alaska Native villages with energy development, capacity building, energy cost reduction, and electrification of Indian lands and homes.

VIEW MORE
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, intertribal organization or tribal energy 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.
Alaska Constituents

- 13 Regional Corporations
- 200+ Village Corporations
- 229 Federally-recognized Alaska tribes

Bureau of Indian Affairs (BIA) issued a list of federally recognized Alaska Tribes in 1993, confirming federal recognition
Energy in Alaska

- Alaska is 3rd largest crude oil and natural gas producing state in the nation (EIA, 2018)
- Coal reserves estimated to be larger than entire lower 48 contiguous states combined (EIA, 2018)
- Average cost of residential electricity in the state is higher than the national average by roughly 60% (EIA, 2018)
- Rural residents and villages pay exponentially higher rates with some rates reaching over $1.00/kWh or about 800% higher than the national average (EIA, 2018; Schwabe, 2016)
Barriers to Energy Development*

Office of Indian Energy’s focus confirmed through research*

- Financing, Funding and Capacity Building emerged as top barriers
- Barriers are multi-faceted and many times interconnected
- Participants many times mentioned more than one barrier to be considered “Most Significant”

<table>
<thead>
<tr>
<th>Most Significant (Ranked Order)</th>
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<tbody>
<tr>
<td>1. Financing and Funding</td>
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<td>2. Capacity Building</td>
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<td>3. High Costs in Alaska</td>
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<td>4. Cultural Fit</td>
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<td>5. Planning</td>
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<td>6. Public Opinion and Education</td>
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<td>8. Governance</td>
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<td>9. Seasonal Weather</td>
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<td>10. Climate Change</td>
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* As described by participant interviews for Alaska barriers research (2016-2017)
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.
Deployment Program

Access to Capital
We facilitate access to capital for energy project development through financial assistance (competitively awarded grants), Tribal Energy Loan Guarantee Program and innovative financing strategies.

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.

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.
Access to Capital

- **Financial Assistance**
  
  Focused on community and facility hardware deployment

- **Innovative Financing Strategies**
  
  Predominately implemented through grants, capacity building, and research

- **Loan Guarantee Program**
  
  Authorized in 2005. Funds appropriated FY2017
Invested $22 million in nearly 50 Alaska energy projects valued at more than $56 million (2010-2018)

23 Active Grants
- 11 planning
- 12 hardware
Invested $22 million in nearly 50 tribal energy projects
Current Active Alaska Grants (23)

$13.7 Million invested in 23 Active Alaska Projects valued at $32.5 million
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

The goal of 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.

“This is government money well spent. This assistance is **helping our people afford to live in the village**. Thank you!”

Types of Technical Assistance

- Technical Analysis
- Financial Analysis
- Strategic Energy Planning

[http://energy.gov/indianenergy](http://energy.gov/indianenergy)
Technical Assistance Types

Technical Analysis
Assistance in technical analysis generally involves analysis and modeling, expert review, transmission and/or utility assessment, market access, and energy efficiency reviews. This assistance is intended to address a specific project needs and result in a tangible product or deliverable to move a specific project forward.

Financial Analysis
Financial analysis assistance is intended for decision makers in the early stages of energy development, including economic or market analysis. This assistance may include modeling for payback periods, net present value (NPV), and levelized cost of energy (LCOE).

Strategic Energy Planning
Assistance in strategic planning may provide an initial resource assessment, energy options analyses, and development of a viable roadmap for development. This assistance typically includes an on-site workshop facilitated by tribal energy expert(s) to assist tribal leaders, elders and staff develop an energy plan.

Strategic Energy Planning
- Where do you want to end up?
- Who’s going to lead the charge?
- Defining the problem (energy baseline & future energy needs)
- Understanding your energy options (supply and demand-side options)
- Choosing the best options
- Identifying your tribe’s priorities form the options
- Putting it all together
Technical Assistance Requests (Completed, 2010-June 2019)

Completed Technical Assistance Requests (329) By State (2010-June 2019)
AK Technical Assistance Requests (Completed, 2010-June 2019)

Technical Assistance Category

- Financial Analysis, 61, 47%
- Technical Analysis, 50, 38%
- Strategic Energy Planning, 18, 14%
- Other, 2, 1%

Completed Technical Assistance Requests (131)

- 2010: 2
- 2011: 3
- 2012: 5
- 2013: 11
- 2014: 12
- 2015: 30
- 2016: 26
- 2017: 26
- 2018: 16
- 2019: 0
“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 so good for us! We are saving more money now so we can buy more gas to go hunting and fishing.”

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

- Research
  - Identifying Barriers and Pathways for Renewable Energy Development on American Indian Lands
  - Tribal Energy System Vulnerabilities to Climate Change and Extreme Weather (2015)
  - Venetie, Alaska Energy Assessment (2013)
  - Geospatial Analysis of Renewable Energy Technical Potential on Tribal Lands (2013)
Monthly Webinars (2019 Series)

Register for the Upcoming 2019 Tribal Energy Webinar Series
Monthly Webinars (2019 Series)

Sponsored by the Office of Indian Energy

The U.S. Department of Energy (DOE) Office of Indian Energy provides tribes and Alaska Natives with information on energy efficiency and energy technologies and project development through webinars and online curriculum.

Register for upcoming webinars below or access past webinars. All webinars are offered at no cost and scheduled at 11 a.m. to 1 p.m. Mountain Time (MT) the last Wednesday of each month.

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

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

_Yukon River Inter-Tribal Watershed Council (AK) installed energy efficiency measures for the Nunamiut people of Anaktuvuk Pass to reduce energy use by 34%_

_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)_

**Chaninik Wind Group (AK)**
Thermal heating using wind energy (November 2012)
Tribal Energy Successes

Huslia Tribal Council's (AK) Biomass Project (2018)

Future Site of Hughes Solar PV Array (AK)

Oct 30th 2018 Hughes, AK North of the Arctic Circle (2018)
Tribal Energy Successes

Tribal Energy Successes

NANA Regional Corp. Solar Project (Buckland, Deering, and Kotzebue, AK (2018))
Alaska Village Electric Cooperative, Inc. (AVEC) and Bethel Native Corporation's (BNC) “Bethel Wind Energy Construction Project” to benefit the communities of Bethel and Oscarville, AK (September 2018)
Assisting Tribes Achieve Their Energy Vision

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).
Questions?

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http://energy.gov/indianenergy
Unique Tribal Forum for Sharing and Learning

- Forum for Tribes to meet and learn from other each other and to share their successes and challenges
- Networking & learning opportunity
- Typically forty to fifty (40-50) Tribal energy projects presented
- Typically ~200 participants

Week of November 18, 2019

For more, see https://www.energy.gov/indianenergy/projects/program-review