

DOE OFFICE OF INDIAN ENERGY

DOE Indian Energy Program Overview

Lizana Pierce, Senior Engineer and Deployment Supervisor



Deployment Supervisor – Lizana Pierce



Lizana Pierce

Senior Engineer and Deployment Supervisor, Office of Indian Energy Policy and Programs, Colorado

Lizana Pierce is duty stationed in Colorado and serves as the principal engineering expert for the Director and Deputy Director on deployment programs. Mrs. Pierce is responsible for implementing the Office's Deployment Programs: Technical Assistance, Financial Assistance; and Education and Capacity Building.

Lizana has more than 25 years of experience in energy technologies, project development, and management, and has dedicated 20 of those years to assisting Indian tribes in developing their energy resources and building their human capacity to realize their energy visions.

Ms. Pierce holds a Bachelor of Science degree in mechanical engineering from Colorado State University, and she pursued a Master's in Business Administration through the University of Northern Colorado.



Office of Indian Energy

The DOE Office of Indian Energy is charged by Congress under the **Indian Tribal Energy Development and Self Determination Act of 2005** (Title V of the Energy Policy Act of 2005) 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.”



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.

Meet the Team

Office of Indian Energy

Comprised of 14 Federal employees and 10 contractors

The Director, Deputy Director, Senior Advisor, Budget Officer, Communications Specialist, and Management Analyst (6 FTE's) and two (2) contractors located in Washington, DC.



The Deployment Supervisor, Deployment Specialist, a Project Officer and two Engineers (5 FTE's) and eight (8) contractors, duty-stationed in Golden, Colorado. Financial assistance support received through the DOE Golden Field Office.



AK Senior Policy Advisor and two (2) Engineers duty-stationed in Alaska.



Meet the Team



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

Deployment Program



Financial Assistance

We facilitate tribal energy project development through financial assistance (competitively awarded grants).



Technical Assistance

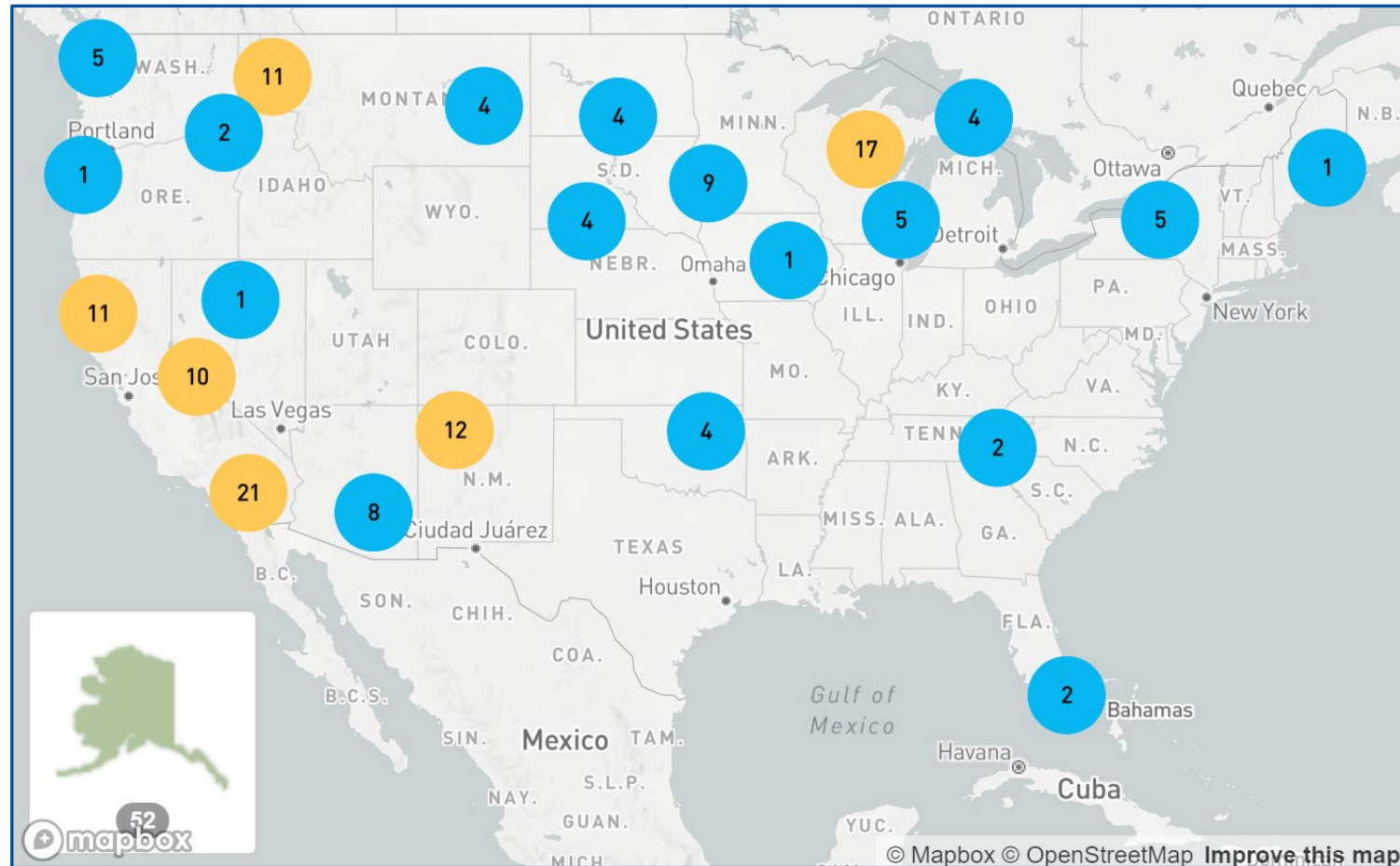
We provide federally recognized Indian tribes, including Alaska Native villages, regional and village corporations, tribal energy resource development organizations, and other tribal groups and communities, with technical assistance to advance tribal energy and infrastructure projects at no charge.



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.

Invested over \$114 million in more than 200 tribal energy projects valued at nearly \$200 million (2010-2021)



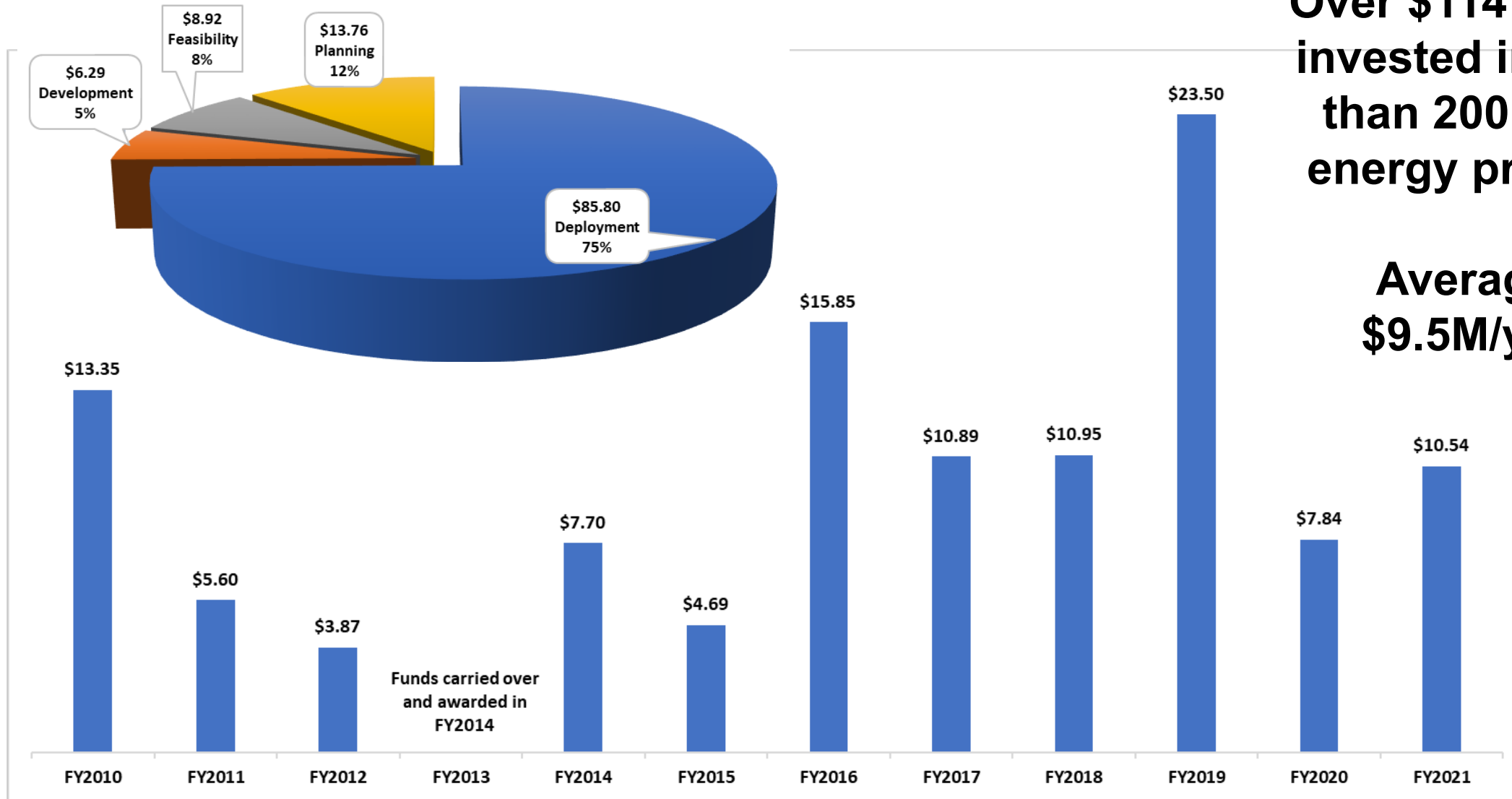
Competitive Process (2010-2021)

- **18 Funding Opportunity Announcements (FOAs) issued**
(Includes FOA's issued in 2009 for award in 2010)
- **Accepted a total of 687 applications, valued at over \$742 million**
- **Funded over 30% of all applications received** (209 out of 687)
DOE average ~5 to 10%

All Funds Awarded through a Competitive Process

The Office of Indian Energy has primarily fulfilled the requirements under 42 U.S.C. § 7144e by providing cost shared federal funding to Indian tribes and tribal entities through competitive financial assistance awards.

Financial Assistance Investments (2010-2021)

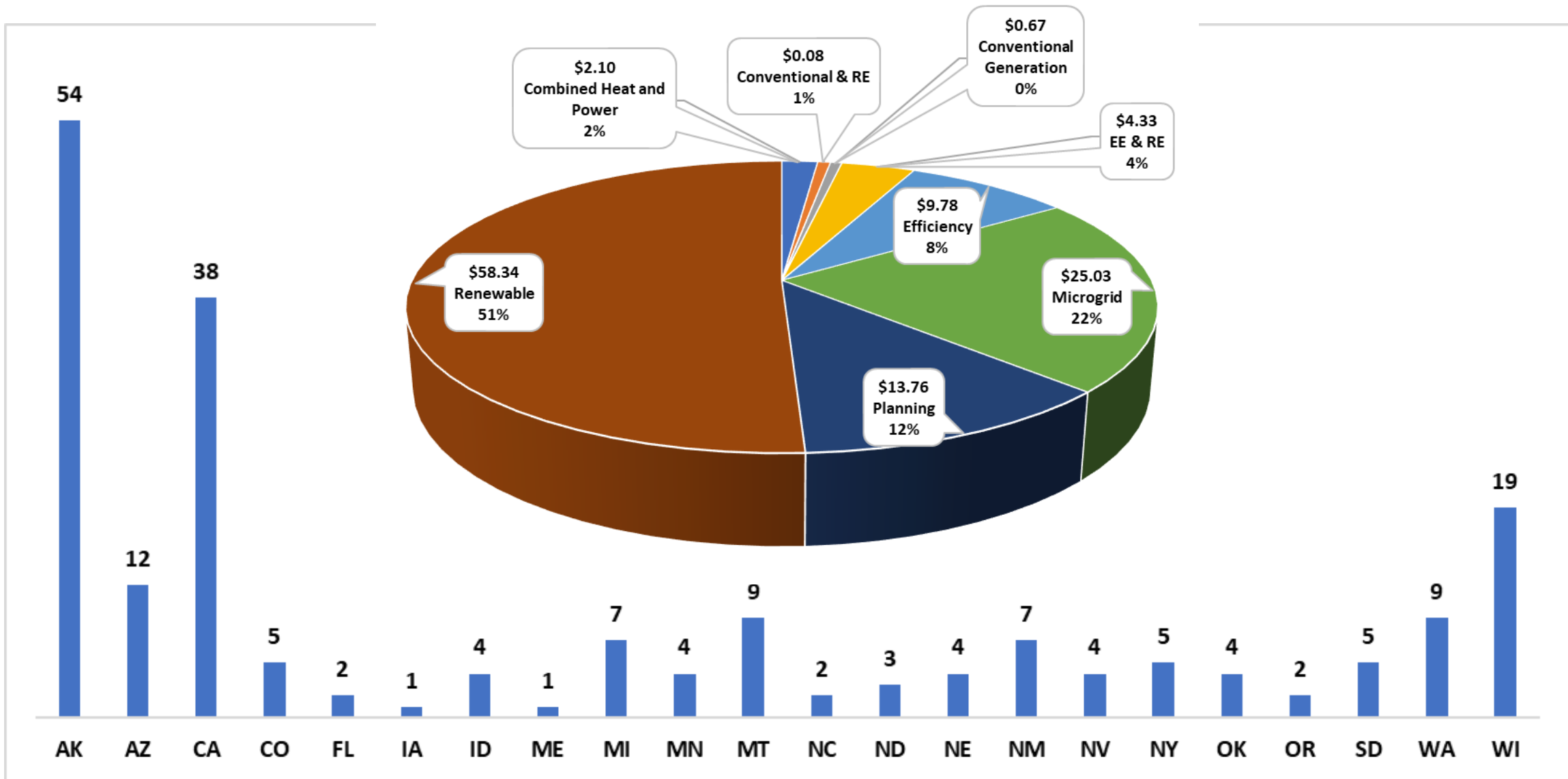


Over \$114 million invested in more than 200 tribal energy projects

Averages \$9.5M/year

Includes FY2020 cost share reductions in year of award

Investments by Technology and State (2010-2021)



Financial Assistance (2010-2021)

Tangible Results

- **More than 43 MW of New Generation Installed**
- **More than 10 MWh of Battery Storage Installed**
- **Over \$13.7 Million Saved Every Year**
- **Over \$295 Million Saved Over System Lifetimes**
- **\$3.46 Saved for Every DOE Dollar Invested**
- **Over 8,600 Tribal Buildings Affected**

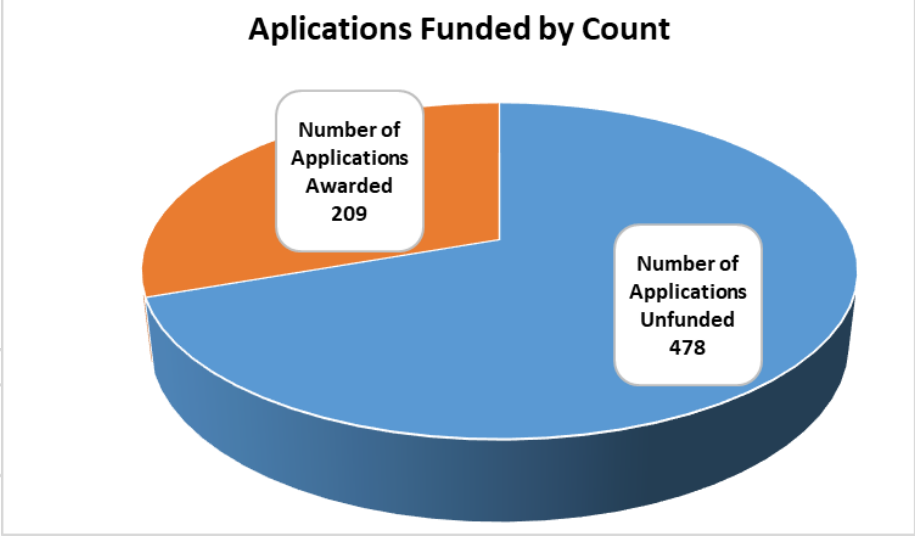
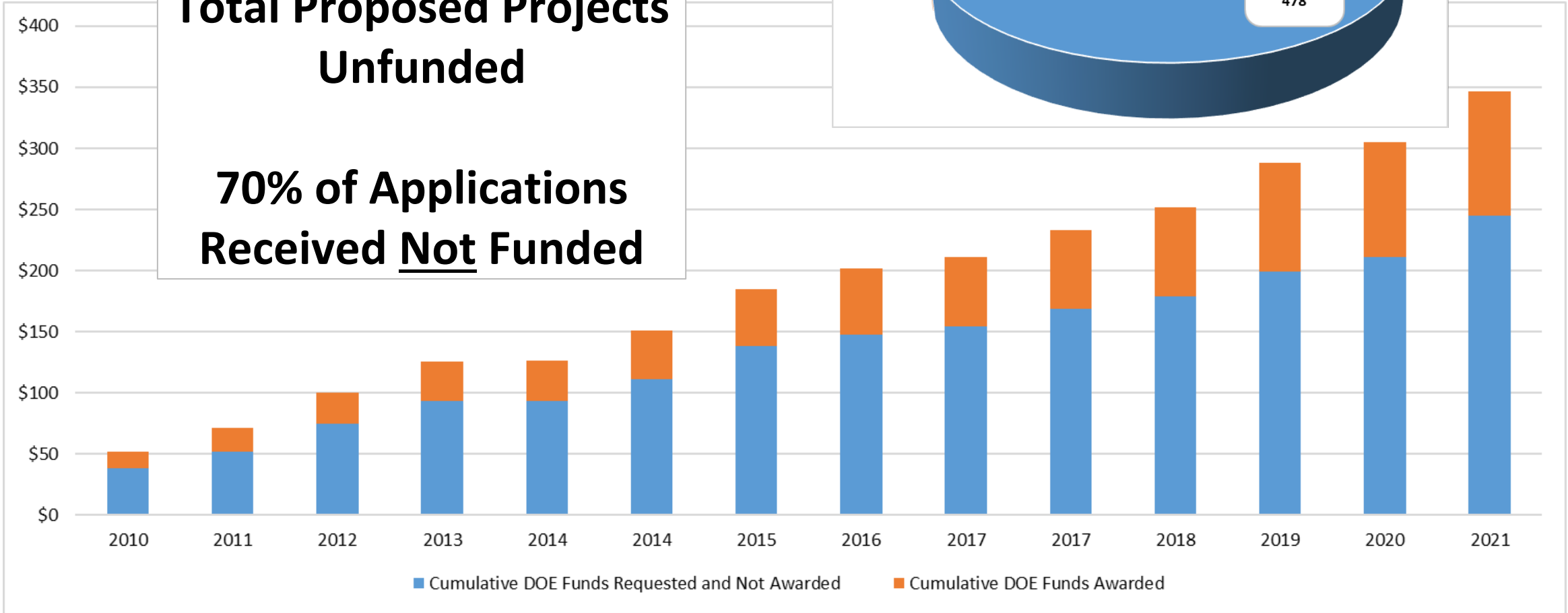


Clockwise from top right: **Huslia Tribe Council (AK)** installed a community-scale biomass project to heat their community's buildings (2018); **Soboba Band of Luiseño Indians (CA)** installed a 1 MW solar; **Rosebud Sioux (SD)** solar system on low-income home (2016); **Fort Mojave Indian Tribe and Aha Macav Power Services** installed a 2.3 MW solar system; **Alaska Village Electric Cooperative, Inc. (AVEC) and Bethel Native Corporation's (BNC)** installed a 900-kW turbine to power the communities of Bethel and Oscarville, AK.

Financial Assistance (2010-2021)

Over \$500 Million in Total Proposed Projects Unfunded

70% of Applications Received Not Funded



Does not include FY2020 cost share reductions.

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 and challenges
- Networking & learning opportunity
- Hear about 40 to 50 Tribal energy from across the country
- ~200 participants



DoubleTree by Hilton Hotel Denver

Typically held in November

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

Tribal Energy Successes



Clockwise from top right: Ute Mountain Ute Tribe's (CO) 1 MW solar system; San Xavier (AZ) solar installation at their Education building (2021); Igiugig Village's (AK) 35 kW RivGen system and energy storage microgrid; and Winnebago Tribe's (NE) solar installation.

Tribal Energy Successes



Clockwise from top right: Fort Mojave Tribe and Aha Macav Power Services (AZ) 2.3 MW solar installation (2020); Blackfeet /Community College (MT) 53.2 kW solar installation (2021); Nuvista Kwethluk (AK) 670 kWh Energy Storage Project (2021)

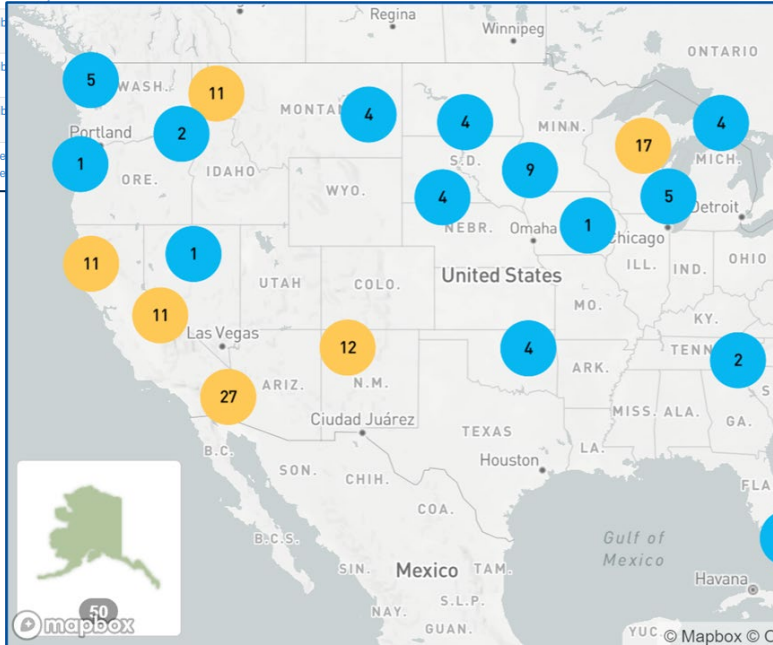
Tribal Energy Investment Transparency

Online Tribal Energy Projects Database

- Project Map (Interactive Map)
- Project Database (Sortable)
- Project Successes
- Project Summaries
 - Annual Presentations
 - Final Reports

Show 10 entries

Project	Tribe	State	Year	Assistance Type	Category
Agua Caliente Band of Cahuilla Indians - 2010 Project	Agua Caliente Band of Cahuilla Indians	California	2010	Feasibility	Grant
Agua Caliente Band of Cahuilla Indians - 2012 Project	Agua Caliente Band of Cahuilla Indians	California	2012	Feasibility	Grant
Agua Caliente Band of Cahuilla Indians-2015 Project	Agua Caliente Band of Cahuilla Indians	California	2015	Deployment	Grant
Ahtna Intertribal Resource Commission – 2016 Project	Ahtna Intertribal Resource Commission	Alaska	2016	Planning	Grant
Akiachak Native Community – 2017 Project	Akiachak Native Community	Alaska	2017	First Steps (Planning)	Grant
Akwesasne Housing Authority on behalf of St. Regis Mohawk Tribe – 2016 Project	Akwesasne Housing Authority	New York	2016	Deployment	Grant



Akwesasne Housing Authority on behalf of St. Regis Mohawk Tribe – 2016 Project

Office of Indian Energy Policy and Programs

Summary

Initiative 1: Go Solar

Under the Community-Scale Akwesasne Housing Authority (AHA) Go Solar Initiative, the St. Regis Mohawk AHA will install approximately 614.74 kilowatts (kW) of solar photovoltaic (PV) systems in Franklin County, New York, to serve 159 housing-related buildings on the Tribe's reservation. The ground-mounted PV systems will be installed on a 25-acre parcel owned by the Tribe, and the generated electrical power will be utilized under National Grid's net metering programs to offset energy use and costs for AHA's buildings and tribal members' residences.

Project Overview

Tribe/Awardee: Akwesasne Housing Authority

Location: Hogansburg, NY

Project Title: Community-Scale AHA Go Solar Initiative and Net Zero Initiative

This project will serve 5% of the total tribal community's residential energy load and 4% of the total electrical energy usage including governmental and commercial buildings. When considering all fuels used on the reservation, the project provides a 3.35% reduction of total energy load on the reservation.

Type of Application: Deployment

DOE Grant Number: DE-EE0000038

Initiative 2: Net Zero

The Akwesasne Housing Authority will create three "net-zero" buildings by installing energy efficiency measures and 1615 kW of solar PV, reducing annual energy costs by about \$36,200. Two of the buildings are part of the Sunrise Green Development project, a tribal affordable housing development that will provide on-site services to tribal veterans, elders, and their families; the third is an existing building that houses the Akwesasne Boys & Girls Club.

Project Amounts:

DOE: \$1,500,000

Awardee: \$1,837,831

Total: \$3,337,831

Project Status: See project status

Project Period of Performance: Start: July 2016, End: June 2019

Project Description

Background

Saint Regis Mohawk Tribe is a sovereign, federally acknowledged Indian tribe. The Tribal Council created the AHA by ordinance in July 1984 and has designated the AHA as its agency for purposes of administering the Tribe's Indian Housing Block Grant under the Native American Housing and Self-Determination Act of 1996. The St. Regis Mohawk Reservation is also known by its Mohawk name Akwesasne. U.S. census data indicate that the total population is 2,919, and U.S. Post Office data confirm that there are 1,277 households on the reservation.

St. Regis Mohawk Tribe and AHA have worked together to develop a 10-Year Tribal Strategic Energy

PROJECT SUCCESSES

Can Solar Work in Alaska? Hughes Village Says Yes.

The Native Village of Hughes just installed the bones of a 120-kilowatt solar photovoltaic system that will cut diesel use and costs.

FEBRUARY 6, 2019

Pala Band of Mission Indians Sees Savings from Solar-Powered Fire Station, Looks Ahead to Continued Energy Development

The Tribe has turned to renewable energy as a means of lowering energy costs and gaining independence from the grid.

JUNE 8, 2018

The Confederated Tribes of the Umatilla Indian Reservation Trap the Sun to Offset Energy Costs

The Tribe turned a strip of its land in Oregon into nearly \$12,000 in annual energy cost savings.

AUGUST 27, 2018

Community Solar to Meet 100% of Energy Costs for New Mexico Tribe

A DOE co-funded 1-megawatt community solar array will offset the cost of the entire energy load of Picuris Pueblo.

JANUARY 11, 2018

Funding Resources

- Current Funding Opportunities**

List of open tribal energy related funding opportunities from federal agencies and other sources

- Ongoing Funding Opportunities**

Provides ongoing sources of funding including grants, loans, loan guarantees and other incentives across the Federal government

- Past IE Funding Opportunities**

Provides information on prior Office of Indian Energy funding opportunities

<http://energy.gov/indianenergy>

Current Funding Opportunities

Office of Indian Energy Policy and Programs

Office of Indian Energy Policy and Programs » Funding » Current Funding Opportunities

Current funding opportunities from federal agencies and other entities for development and deployment.

Also, see information about other ongoing funding opportunities and the Office of Indian Energy's past funding opportunities.

For other assistance, see technical assistance. For policies and financial incentives, visit DSIRE®.

CLOSE DATE	ORGANIZATION	OPPORTUNITY
9/30/21	DOE	Solar Impacts on Wildlife and Ecosystems Request for Information The U.S. Department of Energy (DOE) Solar Energy Technology Office is seeking input on solar land use and its impacts on wildlife and ecosystems. Industry, government agencies, nonprofits, academia, researchers, and other stakeholders are encouraged to respond. The Office of Indian Energy is specifically interested in information on current practices and what data or resources would enable greater confidence in solar energy development.
10/19/2021	EDA	FY2021 American Rescue Plan Act Build Back Better Regional Challenge Through this American Rescue Plan Act Build Back Better Regional Challenge Opportunity, the U.S. Economic Development Administration is soliciting applications for eight individual competitions to help regions develop transformational strategies to fund the implementation of those strategies that will create jobs and improve the quality of life in their communities.
10/05/2021	EPA	FY22 Brownfields Job Training Grant This funding opportunity is open to eligible entities, including tribal governments, to deliver Brownfields Job Training programs that recruit, train, and employ under-employed residents with the skills needed to secure a spectrum of brownfield-related activities.
10/18/2021	DOC	NOAA Climate Program Office FY2022 The National Oceanic and Atmospheric Administration's soliciting applications for eight individual competitions. Competitions are relevant to four high-priority climate risk areas: science understanding and/or capabilities that result in improved understanding of climate change; science understanding and/or capabilities that result in improved understanding of climate change; science understanding and/or capabilities that result in improved understanding of climate change; science understanding and/or capabilities that result in improved understanding of climate change.

Ongoing Funding Opportunities

Office of Indian Energy Policy and Programs » Funding » Ongoing Funding Opportunities

This table provides information on funding, financing, and incentives for tribal energy development and deployment from the U.S. Department of Energy (DOE) and other federal agencies and entities.

Also, see information about current funding opportunities and the Office of Indian Energy's past funding opportunities.

For other assistance, see technical assistance. For policies and financial incentives by state, visit DSIRE®.

Search:

SEARCH RESULTS

Showing 1 to 10 of 41 entries

PROGRAM	AGENCY	DESCRIPTION	TYPE OF ASSISTANCE	ELIGIBILITY
Weatherization Assistance Program	Department of Energy: Energy Efficiency and Renewable Energy	Enables low-income families to permanently reduce their energy bills by making their homes more energy efficient.	Grants	Federally recognized Tribes and tribal governments; Alaska Native and tribal corporations; Alaska Native villages; Tribal universities, utilities, and other organized tribal groups; State-recognized-only Tribes; Tribal universities, utilities, and other organized tribal groups; Tribal nonprofit organizations (503-(C)(3)); Tribal energy resource development organizations
Indian Land Tenure Foundation Grants	Indian Land Tenure Foundation	Provides grants for land-related initiatives in education, cultural awareness, economic opportunity and legal reform.	Grants	Indian tribes (including Alaska Native Regional Corporations and Village Corporations) and Tribal Energy Resource Development Organizations
ANA Funding Opportunity Announcements	Department of Health and Human Services: ACF Administration for Native Americans	Support locally determined projects designed to reduce or eliminate community problems and achieve community goals.	Grants	Federally recognized Tribes and tribal governments; Alaska Native and tribal corporations; Alaska Native villages; Tribal universities, utilities, and other organized tribal groups; State-recognized-only Tribes; Tribal universities, utilities, and other organized tribal groups; Tribal nonprofit organizations (503-(C)(3)); Tribal energy resource development organizations
Energy and Mineral	Department of the Interior: The Office of	Provides an opportunity to receive financial assistance to evaluate the energy and		Federally recognized Tribes and tribal governments; Alaska Native and tribal corporations; Alaska Native villages; Tribal universities, utilities, and other organized tribal groups; State-recognized-only Tribes; Tribal universities, utilities, and other organized tribal groups; Tribal nonprofit organizations (503-(C)(3)); Tribal energy resource development organizations

Funding Opportunities

Department of Energy

**DOE Announces \$35 Million To Deploy
Clean Energy on Tribal Lands and Power
Unelectrified Tribal Buildings**

NOVEMBER 1, 2022

Funding Opportunities



CLEAN ENERGY TECHNOLOGY DEPLOYMENT ON TRIBAL LANDS - 2022 Funding Opportunity Announcement (FOA) Number: DE-FOA-0002774

FOA Issue Date:	November 1, 2022
Informational Webinar:	November 29, 2022 at 3:00 pm Eastern Time
Submission Deadline for Applications:	February 9, 2023 at 5:00 pm Eastern Time
Expected Date for DOE Selection Notifications:	Late Spring/Early Summer 2023
Expected Timeframe for Award Negotiations	90 days after receipt of any requested supplemental information

The DOE Office of Indian Energy is soliciting applications from **Indian Tribes, which include Alaska Native Regional Corporations and Village Corporations, Intertribal Organizations, and Tribal Energy Development Organizations** to:

- (1) install clean energy generating system(s) and energy efficiency measure(s) for Tribal Building(s) (Topic Area 1); or,
- (2) deploy community-scale clean energy generating system(s) or energy storage on Tribal Lands (Topic Area 2); or,
- (3) install integrated energy system(s) for autonomous operation (independent of the traditional centralized electric power grid) to power a single or multiple essential tribal facilities during emergency situations or for tribal community resilience (Topic Area 3).



POWERING UNELECTRIFIED TRIBAL BUILDING(S) - 2022 Funding Opportunity Announcement (FOA) Number: DE-FOA-0002771

FOA Issue Date:	November 1, 2022
Informational Webinar:	December 1, 2022 at 3:00 pm Eastern Time
Submission Deadline for Applications:	February 23, 2023 at 5:00 pm Eastern Time
Expected Date for DOE Selection Notifications:	Late Spring/Early Summer 2023
Expected Timeframe for Award Negotiations	90 days after receipt of any requested supplemental information

The DOE Office of Indian Energy is soliciting applications from Indian Tribes, which include Alaska Native Regional Corporations and Village Corporations, Intertribal Organizations, and Tribal Energy Development Organizations to provide electric power to Tribal Buildings, which otherwise would be unelectrified, by deploying

- (1) integrated energy system(s) (Topic Area 1) or
- (2) energy infrastructure (Topic Area 2).

For purposes of this FOA, “unelectrified” means Tribal Buildings that are not connected to (1) the traditional centralized electric power grid, and not connected to (2) an integrated energy system(s) operating independent of the traditional centralized electric power grid.

Completed Technical Assistance Requests



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.

<http://energy.gov/indianenergy>

“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

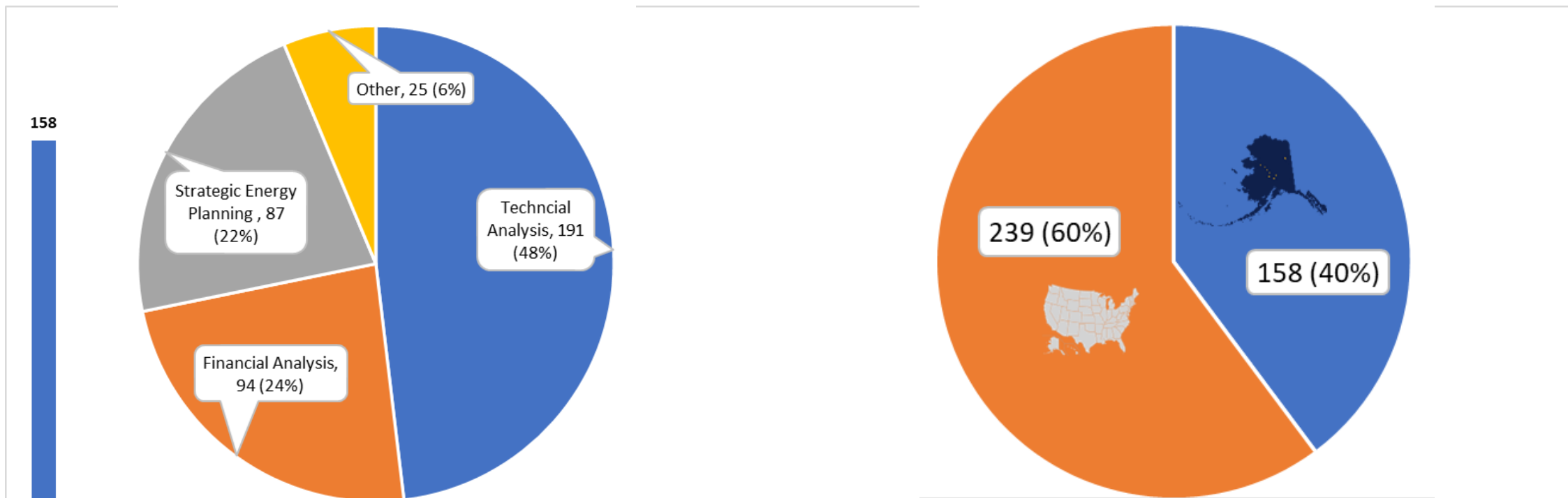


Financial Analysis

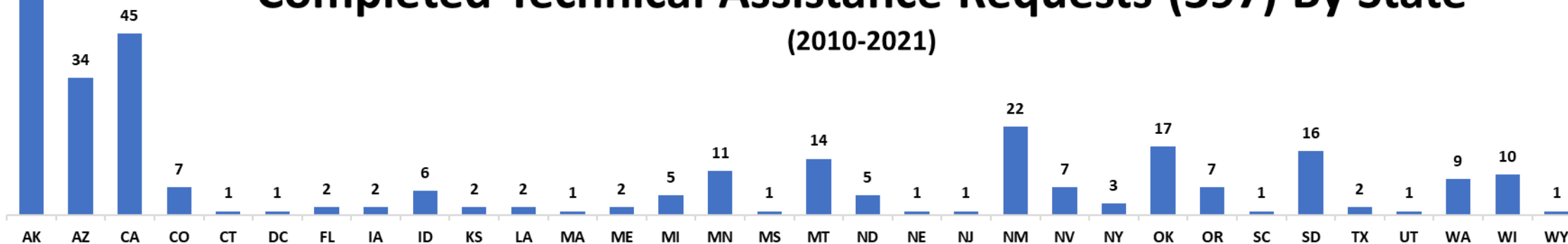


Strategic Energy Planning

Completed Technical Assistance Requests (2010-2021)



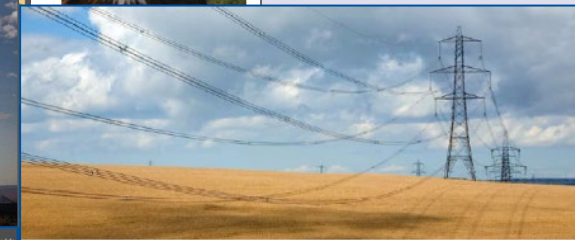
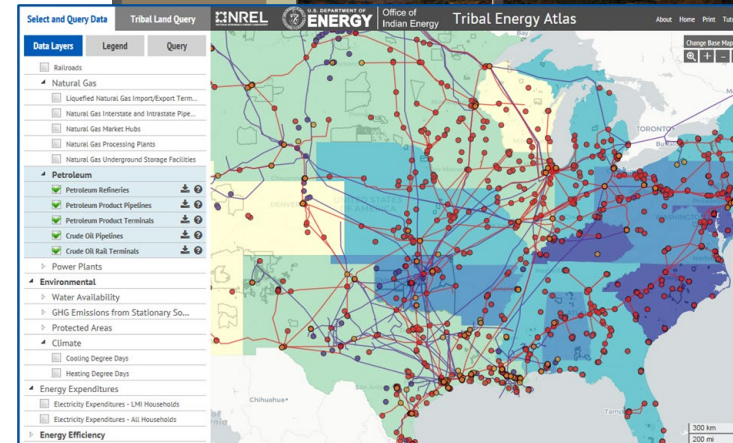
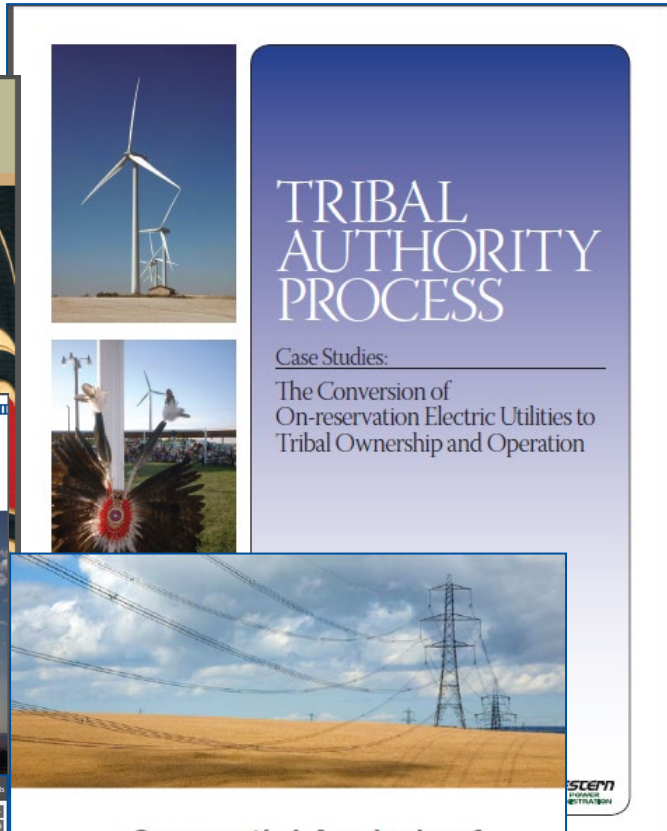
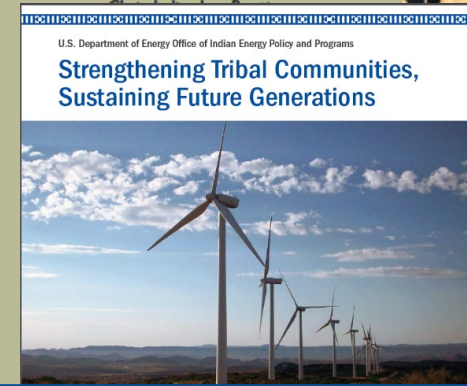
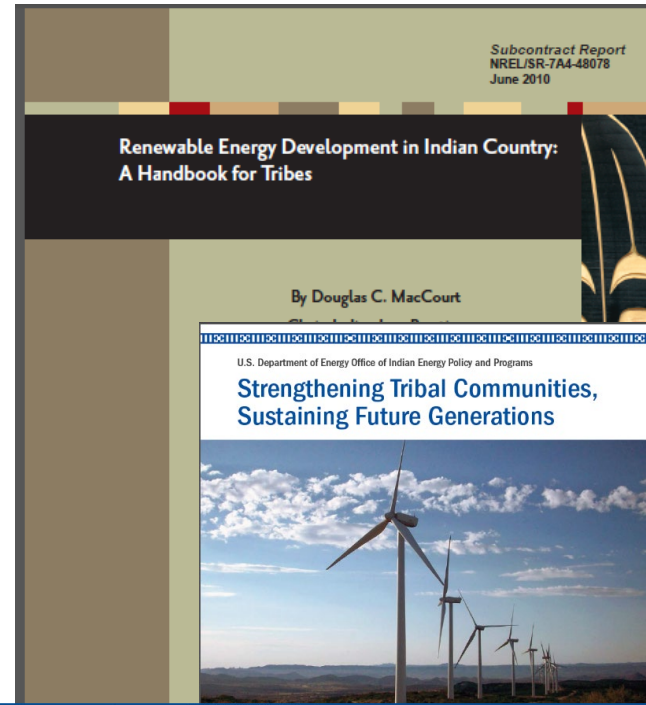
Completed Technical Assistance Requests (397) By State (2010-2021)



Informational Resources

- **Information Resources**
 - **Energy Resource Library**
publications, websites, videos, and more.
 - **Curriculum Foundational and Advanced Courses**
Educational webinars
- **Workshops & Webinars**
 - **Monthly Webinars**
Monthly webinars provide foundational information, resources and case studies
 - **Periodic Workshops**
Workshop on specific topics
- **Tribal Energy Atlas**
 - **Interactive Geospatial Tool**

<http://energy.gov/indianenergy>



Geospatial Analysis of Renewable Energy Technical Potential on Tribal Lands

E. Doris, A. Lopez, and D. Beckley
National Renewable Energy Laboratory


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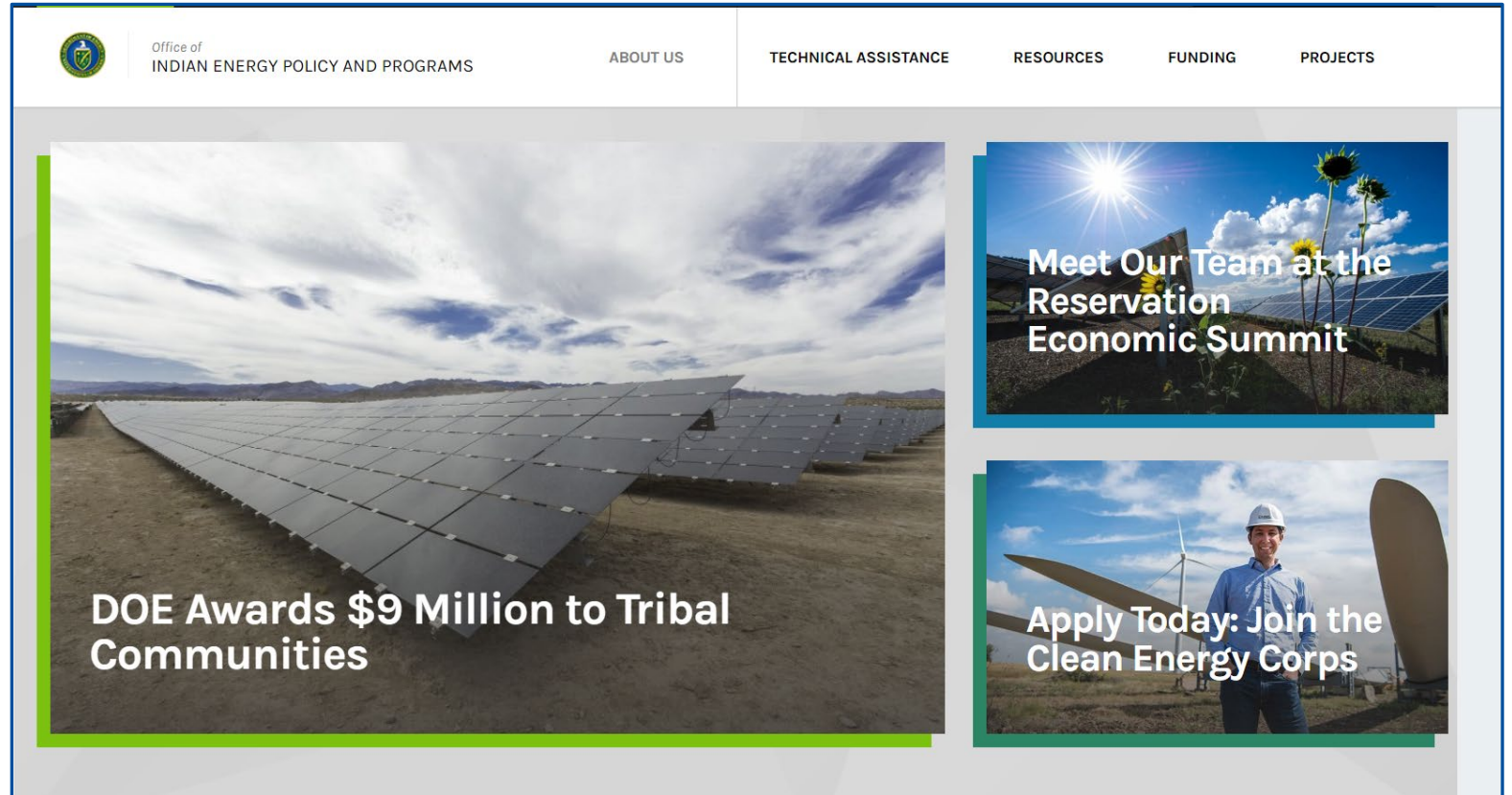
CONTACT US

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Email: indianenergy@hq.doe.gov

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Office of
INDIAN ENERGY POLICY AND PROGRAMS

ABOUT US TECHNICAL ASSISTANCE RESOURCES FUNDING PROJECTS

DOE Awards \$9 Million to Tribal Communities

Meet Our Team at the Reservation Economic Summit

Apply Today: Join the Clean Energy Corps



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<https://twitter.com/DOEIndianEnergy>

<http://energy.gov/indianenergy>

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Assisting Tribes Achieve Their Energy Vision



Clockwise from top right: NANA Regional Corp. (AK) working with the villages of Buckland, Deering, and Kotzebue to install solar (2018), in the lower right, Fort Yukon's (AK) combined heat and powerhouse as compared to their old powerhouse above. In the upper left, Alaska Village Electric Cooperative, Inc. (AVEC) and Bethel Native Corporation's (BNC)'s "Bethel Wind Energy Construction Project" to benefit the communities of Bethel and Oscarville, AK (September 2018)



Clockwise from the right: Hughes Village (AK) 150 kW solar system (2018); Menominee Tribal Enterprise (WI) install a biomass combined heat and power system; Tolowa Dee-ni' Nations (OR) Fish Hatchery 114 kW solar project (2020); Seneca Nation's (NY) 1.5 MW turbine (2017).

Questions?





Thank
You