



U.S. DOE OFFICE OF INDIAN ENERGY

INDIAN ENERGY BEAT



News on Actions to Accelerate Energy Development in Indian Country

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Blue Lake Rancheria's Bold Action on Climate Pays Dividends



Blue Lake Rancheria Vice Chairperson Arla Ramsey and Energy Director Jana Ganion survey the progress of the Tribe's biomass-to-fuel cell power plant, scheduled to go online this spring. Photo from Jana Ganion, Blue Lake Rancheria, NREL 32766

Nestled in Northern California's Mad River Valley between the coastal mountains and the Pacific Ocean, the Blue Lake Rancheria is bordered by great forests and the California Redwood trees. It's a sacred and hard-won swath of land for the Tribe that calls it home, and preserving it for future generations is paramount.

With sustainability as a guiding principle, the Blue Lake Rancheria has invested considerable time and money into energy conservation and renewable energy projects. Established in 2008 as an element of its broader environmental program, the Tribe's energy vision has since expanded into a defined climate action strategy focused on resiliency and greenhouse gas reduction.

The Tribe's overarching goal is to meet or exceed California's aggressive clean energy standards, and its progress has been remarkable. To date, the

Rancheria has reduced energy consumption by 35% by completing dozens of energy efficiency upgrades, recycling more than 70 tons of waste annually, and incorporating sustainability features into every building and infrastructure project it undertakes. In December, the Tribe was one of 16 U.S. communities the White House selected as Climate Action Champions.

"Energy is one of those areas that interconnects with just about everything we do from a development standpoint," said Blue Lake Rancheria Energy Director Jana Ganion, pointing to the casino hotel the Tribe built in 2009 as the impetus for more aggressive energy efficiency measures. The hotel, which achieved a 17% reduction in energy use over plan, was the first in California to be held up as a model of energy efficiency by the local utility.

"That turned the Tribe's head to how the economics could work and how that could dovetail into the overall strategy of greenhouse gas reduction," Ganion said. "They recognized it was a relatively small investment with a multilayered benefit, and it really motivated them to do more."

"The U.S. Department of Energy (DOE) is a critical partner in the Tribe's climate mitigation and resiliency activities, providing foundational resources including strategic planning guidance and plan templates, online and in-person trainings and workshops, specific technical assistance, and unfailing encouragement of the Tribe's renewable energy and climate-related work. The Tribe is committed to a long-term fight against climate change by acting now to help reverse it, and DOE has helped immensely in these efforts."

—Jana Ganion,
Energy Director, Blue Lake Rancheria

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BLUE LAKE RANCHERIA (CONTINUED)

Doing more has quickly paid dividends. “The paybacks for the energy efficiency upgrades are all under three years, and most are under a year,” said Ganion, noting that with new light bulbs and new technology, those upgrades will last 10 years.

Building on the momentum, the Tribe has partnered with nearby Humboldt State University, the Schatz Energy Research Center, and the Redwood Coast Energy Authority to pursue other innovative clean energy solutions—a biodiesel transportation project, a residential solar installation, and a novel biomass-to-fuel cell power system that will convert sawdust from locally grown timber into clean fuel to power the casino and hotel.

In addition to forming partnerships on the local and state level, Blue Lake Rancheria has leveraged federal information resources and technical assistance opportunities to great advantage.

“We really rely on these resources because they provide an objective source of information and knowledge,” said Ganion, noting that technical assistance provided by the DOE Office of Indian Energy in 2014 helped ensure the safety of the Tribe’s cutting-edge biomass system, which is scheduled to go online this spring.

As a Climate Action Champion, Blue Lake will have increased access to an array of federal support, resources, and tools to further its climate strategy, a benefit Ganion believes will have a ripple effect.

“We want to leverage the technical assistance and funding we will receive for the Tribe and the entire region,” she said. “The tribal government has pushed a lot of great energy projects forward—and its view is that we should be using these as ongoing educational opportunities. One of the benefits of the Climate Action Champions competition is to get people thinking out of the box about how these projects can be implemented for multiple benefits.”

Read the full story in the blog at <http://www.energy.gov/indianenergy/articles/blue-lake-rancheria-s-bold-action-climate-front-pays-dividends>.



MESSAGE FROM THE DIRECTOR DAVID CONRAD

Dear Friends,

We wrapped up 2014 with an outstanding dialogue between DOE Secretary of Energy Dr. Ernest Moniz and the tribal leaders of our DOE-sponsored energy working groups (for details, see my blog at www.energy.gov/articles/secretary-moniz-reaffirms-energy-department-s-commitment-tribal-partnerships). Also at the end

of the year, the new Under Secretary for Science and Energy, Dr. Franklin Orr, was sworn in to oversee several offices within DOE, including the DOE Office of Indian Energy.

The new year brought many exciting developments, beginning with President Obama signing the Fiscal Year 2016 appropriations bill. The bill requests \$20 million for the DOE Office of Indian Energy for financial and technical assistance; capacity building; and deployment of energy, energy infrastructure, microgrids, and energy efficiency projects. It also includes a newly proposed \$11 million Tribal Energy Loan Guarantee Program, which would provide underwriting and credit subsidies for loan guarantees for tribally owned energy generation projects.

In January I joined the DOE Office of Indian Energy as Acting Director, having served as Director of Tribal and Intergovernmental Affairs in DOE’s Office of Congressional and Intergovernmental Affairs since 2010. Tribal energy issues have been a significant focus of mine, both in my professional career and as a citizen of the Osage Nation, and I am honored to serve the Obama Administration in this capacity.

By building on the strong foundation established by both of my predecessors and leveraging appropriations signed into law, the DOE Office of Indian Energy is poised to grow its capabilities and continue serving Indian Country effectively for many years to come. This year we plan to build our team of talented people, expand our technical assistance and grant program, enhance our interagency coordination, and initiate much-needed tribal energy research. We will also broaden the dialogue with tribal leaders, expand and strengthen our partnerships, and explore more opportunities and solutions with Tribes across the nation.

The need to create real and meaningful change in Indian Country and Native Alaska has never been more pressing in light of climate change, and I look forward to working closely with tribal leaders to leverage the opportunities we have to rise to the challenge in the months ahead.

As we make progress, it is important to share the stories of various challenges, successes, and lessons learned along the way. I hope you enjoy and benefit from reading about our efforts to provide Tribes with the tools, information, and resources they need to prepare for the impacts of climate change, increase energy security, and build community resiliency. As always, we want to hear from you. Please share your ideas, comments, or suggestions at indian.energy@hq.doe.gov.

—David Conrad

SHARING KNOWLEDGE For Alaska Natives, Climate Change Is Now

According to a National Climate Assessment by the U.S. Global Climate Change Research Program:

- Alaska has warmed twice as fast as the national average: temperatures increased by an average of 3.4°F in the past 50 years; winter warming rose by an average of 6.3°F.
- Sea ice is rapidly receding and glaciers are shrinking.
- Thawing permafrost is leading to more wildfire, which affects infrastructure and wildlife habitat.
- Tribal governments are facing relocation due to the rise of sea level and coastal erosion.

The DOE Office of Indian Energy, in partnership with the Denali Commission and other federal agencies, is helping Alaska Native villages develop sustainable energy strategies and implement viable solutions to community energy challenges. Learn more at www.energy.gov/indianenergy/resources/alaska-native-villages.



Galena, Alaska, where Yukon River flooding destroyed 90% of the buildings in 2013. Photo by Eliza Hotchkiss, NREL, 32755

WINNING THE FUTURE

Sault Ste. Marie Earns National Recognition for Holistic Energy Vision

Spread over a vast area of the Upper Great Lakes, members of the Sault Ste. Marie Tribe of Chippewa Indians live mainly in the seven easternmost counties of Michigan's Upper Peninsula. Overall, they have nine housing sites, five casinos, and seven health centers.

Challenge: Even though the Tribe is scattered geographically, members share a long-standing interest in energy efficiency and renewable energy options. However, by statute, all proceeds of tribal enterprises are returned to members in the form of services, such as health care and food security. Getting tribal buy-in for new conservation measures has been a challenge. Without dedicated staff for energy efficiency initiatives, the Tribe lacked data to build the economic case for such efforts.

Solution: The Tribe targeted various federal grant programs for strategic energy development and efficiency efforts and channeled utility energy rebates into additional work.

In 2002, the Tribe received a DOE grant to conduct a feasibility study on wind energy to power tribal facilities, and seven years later it won two more grants to conduct energy audits and address energy inefficiency in tribal government buildings.

To solidify its stance, the Tribe also drafted an energy strategy calling for a long-term goal of net-zero energy, a bold move that reflected its vision, provided a framework for moving forward with clean energy efforts, and helped align the diverse self-sufficiency efforts within the tribal government.

“Our energy strategy was quite bold. Most communities would shy away from [a goal of net-zero energy] because it seems unfeasible. But this is long-term thinking, and as they say, ‘Shoot for the moon—even if you miss, you’ll wind up in the stars.’”

—Kathie Brosemer,
Environment Program Manager,
Sault Ste. Marie Tribe



A tribal member practices setting up and operating a blower door during an energy audit training at the tribal sports arena, Chi-Mukwa. Photo from Kathie Brosemer, Sault Ste. Marie Tribe of Chippewa Indians, NREL 32756

The White House highlighted this coordinated effort on Dec. 3, 2014, when it selected the Sault Ste. Marie Tribe as a Climate Action Champion, citing its “holistic approach to climate action and preparedness through its energy strategy, emergency operations plan, integrated resource management plan, solid waste management plan, sustainable development code, and land use planning process.”

Through ongoing efforts to achieve its ambitious clean energy goals, the Tribe aims to reduce greenhouse gas emissions by 4% annually.

Benefits:

- Completed energy audits on 38 tribal government buildings and 25 homes after purchasing two blower systems and four infrared cameras
- Retrofitted lighting in 21 government buildings, advancing the greenhouse gas reduction goal
- Provided building energy audit training to tribal members, supporting the tribal goal of self-reliance
- Established a basis for long-term energy priorities and a benchmark for measuring improvements by using the data from the energy audits.

BUILDING BRIDGES

New Tool Addresses Gap in Tribal Information Access

Federal efforts to assist tribal communities in preparing for the effects of climate change have prompted two projects designed to inform the Administration about tribal needs and provide tribal governments with the resources they need to establish and sustain prosperous, resilient communities.

As members of the White House State, Local, and Tribal Leaders Task Force on Climate Preparedness and Resilience, Mayor Reggie Joule, Northwest Arctic Borough (AK), and Chairwoman Karen Diver, Fond du Lac Band of Lake Superior Chippewa (MN), were tasked with developing a set of tribal recommendations. In 2014 they organized listening sessions, conference presentations, and webinars to gather input from hundreds of tribal leaders on the unique needs and perspectives of Native communities.

The tribal leaders' recommendations were released at the White House Tribal Nations Conference in December and supplement a full report published by the Task Force in November. Read more in the blog: www.energy.gov/indianenergy/articles/tribal-leaders-provide-white-house-input-bolstering-climate-resilience.

Topping the list was the recommendation to enhance tribal access to critical information through improved interagency coordination. In response, the DOE Office of Indian Energy created the Federal Grant, Loan, and Technical Assistance Programs for Tribal Energy Development online tool, which is the first such tool to provide a one-stop shop targeted specifically to Tribes, Alaska Native villages, and other Native organizations. Launched in December, the tool enables tribal entities to browse the gamut of tribal-specific opportunities available from all federal agencies. Access the tool at www.energy.gov/indianenergy/fedprograms.



Solar photovoltaic panels installed on low-income tribal elder housing units in Oregon offset 25,231 pounds of carbon dioxide emissions—the equivalent amount of carbon dioxide absorbed by 299 trees—in August 2014 alone, and provided 100% of the electricity used by the complex in the summer months. Photo from Grand Ronde Tribal Housing Authority, NREL 31794

LEADING THE CHARGE

Jana Ganion Advances Blue Lake Rancheria's Climate Action Agenda



Change doesn't happen on its own. It's led by dedicated and passionate people who are committed to empowering Indian Country to energize future generations. Leading the Charge is a regular feature spotlighting the movers and shakers in energy development on tribal lands. This issue we had the opportunity to speak with Jana Ganion, Energy Director at Blue Lake Rancheria.

Name: Jana Ganion

Tribe: Blue Lake Rancheria

Title/Role: Energy Director

Jana Ganion has served as Energy Director at the Blue Lake Rancheria for three years and is a member of ICEIWG. Last year she spearheaded the Tribe's entry in the White House Climate Action Champions competition, and in December 2014 the Blue Lake Rancheria became one of 16 U.S. communities selected for their leadership on climate change.

Tell us about your role in advancing the Tribe's strategic energy and climate goals.

I look for ways to transition from conventional energy sources—power and fuel—to clean, renewable, sustainable sources that help stall and reverse climate change. Mainly this involves seeking out clean energy initiatives and any favorable economic support for implementing energy efficiency upgrades; on-site distributed generation renewable energy, green fuels, and community resiliency projects; and greenhouse gas reduction measures.

What are the top energy and climate-related challenges for the Tribe and the region?

Energy security and ecosystem threats—drought, wildfires, and changing water levels and quality—are constant concerns. At an operational level, our biggest challenge is internal capacity. The transfer of knowledge from external resources to internal staff is key to strong long-term development. Institutional knowledge reduces expenses in many ways, and skilled, experienced staff create more deployable resources for subsequent projects.

What drives you to pursue and champion the Tribe's innovative solutions to these challenges?

Our efforts to deploy cleaner sources of power and create new economic strength, which cascades to and from Science, Technology, Engineering, and Mathematics (STEM) education, have yielded demonstrable positive results, and that's inspiring on a daily basis. And moving from feasibility phases to implement, implement, implement—that's the most fun.

Read the full interview with Jana in the blog: www.energy.gov/indianenergy/articles/leading-charge-jana-ganion-advances-blue-lake-rancheria-s-climate-action.

OPENING DOORS

START ROUND 3 UNDER WAY

APPLICATIONS FOR COMMUNITY-SCALE ASSISTANCE DUE MAY 1, 2015

Opportunities abound for Native communities looking for assistance with kick-starting their clean energy projects. The DOE Office of Indian Energy's START Program is just one way that Tribes can get access to the tools and on-the-ground resources they need to build local generation capacity, implement energy efficiency measures, and create local entrepreneurial and job opportunities.

First launched in December 2011, the START Program has helped 21 tribal communities advance their clean energy technology and infrastructure projects—from solar and wind to biofuels and energy efficiency.

Through START Round 3, the DOE Office of Indian Energy, with support from DOE's national laboratories, will work side-by-side with tribal leaders to advance clean energy solutions and identify strategies to help tribal communities prepare for and adapt to the impacts of climate change on their land, economy, and natural resources.

Tribes in the contiguous United States, as well as Alaska regional corporations, can apply to receive assistance with community-scale renewable energy projects through the START Renewable Energy Project Development Assistance Program. Applications are due May 1, 2015, and selections will be made in June.

Applications for the Alaska START Program, a partnership between the DOE Office of Indian Energy and the Denali Commission, were due Feb. 6, 2015. Selected villages, to be announced in March or April, will get assistance with developing strategic energy plans, conducting energy awareness and training programs, and pursuing new renewable energy and energy efficiency opportunities.

For more information on the START Program, see www.energy.gov/indianenergy/resources/start-program.

ON THE HORIZON

MARCH 23-25

Alaska Renewable Energy Project Development Workshop
Bethel, AK

MARCH 26-27

Alaska Renewable Energy Project Development Workshop
Dillingham, AK

MARCH 25

Tribal Energy Development Operation and Management Best Practices Webinar

MARCH 30-APRIL 1

Alaska Renewable Energy Project Development Workshop
Juneau, AK

APRIL 29

Innovative Energy Efficiency, Renewable Energy, and Grid Technology Update Webinar

MAY 27

Models and Tools for Evaluating Energy Efficiency and Renewable Energy Project Opportunities Webinar

June 24

Regulatory Impacts on Indian Lands Webinar

July 29

Best Practices for Developing and Implementing a Request for Proposal Webinar

Find additional events at www.energy.gov/indianenergy/calendars/events.



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Office of Indian Energy

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Page 4, Jana Ganion photo from Blue Lake Rancheria Tribe

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