U.S. DOE OFFICE OF INDIAN ENERGY

INDIAN ENERGY BEAT

News on Actions to Accelerate Energy Development in Indian Country

FALL/WINTER 2014

INSIDE THIS ISSUE:

Minto Upgrades Community Lodge with START Support

With DOE support, workers weatherize the exterior of the Lakeview Lodge in Minto, Alaska. Photo from Russell Snyder, Interior Regional Housing Authority, NREL 31796

The Lakeview Lodge is the heart of Minto, a small Alaska Native village 126 miles northwest of Fairbanks. The 12,000-square-foot building is used daily for school and senior lunch programs, community meetings, and village council operations.

"It is critical to the community," said Bessie Titus, Administrator for the Minto Village Council, which represents 210 residents.

But the lodge, which has to withstand 150-degree temperature swings, was designed more than three decades ago, with little attention to energy efficiency, and constructed in an era when the price of heating oil was low. Now the Council grapples with yearly fuel and electricity costs exceeding $75,000 for the structure it owns. And Minto is not unique in this energy struggle.

"The remoteness of this region, the lack of infrastructure, the harsh environment, and the increasing impacts of climate change throughout rural Alaska all have profound impacts on energy needs, costs, and accessibility," said Givey Kochanowski, Alaska Program Manager for the U.S. Department of Energy (DOE) Office of Indian Energy.

In response to requests from local leaders, the DOE Office of Indian Energy developed several initiatives to advance community energy efficiency, renewable energy, and energy infrastructure projects in Alaska. For example, the Strategic Technical Assistance Response Team (START) Alaska Program provides technical assistance to help Native villages displace diesel oil and reduce energy costs.

In 2013, villages that applied for and were selected to receive technical assistance through START were also eligible for a DOE Tribal Energy Program grant of up to $250,000 to implement energy efficiency or renewable energy projects. Kochanowski described Alaska START as "a means to an end."

"It's very flexible, and tailored to the needs of a community," he said. This responsiveness includes being mindful of logistical challenges that can delay projects in Alaska due to materials shortages or transportation difficulties.

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"Minto is a prime example of the START Program delivering results, from driving down energy costs for Alaska tribal councils to setting communities on stronger foundations for future energy projects."

–Givey Kochanowski,
Alaska Program Manager

MINTO UPGRADES (CONTINUED)

Although a new lodge was on the Minto Council's wish list along with other improvements, advisors such as David Pelunis-Messier, rural energy coordinator for the nonprofit Tanana Chiefs Conference, worked with Minto leaders to apply for START assistance to upgrade the existing building. "Energy efficiency made the most sense," Pelunis-Messier said.

Minto was one of five Alaska Native entities selected by the DOE Office of Indian Energy and the Denali Commission in May 2013 to receive START technical assistance to not only identify energy efficiency opportunities in the lodge, but also assess the potential for biomass and solar projects.

"What set Minto apart was the leadership's demonstrated commitment to improving Minto's energy situation," said START team member Jared Temanson of DOE's National Renewable Energy Laboratory (NREL). "Strong community engagement is fundamental to energy transformation and critical to the success of START technical assistance."

Alaska's Interior Regional Housing Authority also helped Minto to pursue an Alaska Energy Authority (AEA) biomass grant to install a more efficient boiler to heat the lodge and the clinic next door. With START support, a $250,000 DOE grant, a $100,000 Alaska Capital Improvement Project grant, and the AEA grant, Minto was ready to move forward with a phased approach to upgrading the lodge.

In summer 2014, after the START team helped prioritize improvements, weatherization work began on the lodge's exterior. Additional improvements will include attic insulation, air sealing, installation of new doors and windows, and repairs to plumbing leaks. Pelunis-Messier said he expects "at least a 30% improvement" in energy efficiency once the project is complete.

"We think this will reduce costs so we have money for other programs, rather than paying for fuel, fuel, and fuel," said Titus. "Everyone is happy with the project."

DOE Office of Indian Energy Acting Director Pilar Thomas went on an initial site visit to meet Minto tribal leaders and community members in June 2013. Joined by representatives from AEA, Alaska Housing Finance Corporation, Marsh Creek LLC, and Alaska Village Electric Cooperative, she was "pleased to have so many key stakeholders participate."

"In September 2014 we went back to the village to see the work getting completed," Thomas said. "Villages are taking control of their energy futures, and we're glad START is helping."

These types of successes are fueling other DOE Office of Indian Energy initiatives. A pilot planned for Fiscal Year (FY) 2015 will train and develop regional energy ambassadors to provide front line technical assistance to Alaska Native villages. Read more about the Alaska Energy Ambassadors Program at www.energy.gov/indianenergy/news-blog-0.

MESSAGE FROM THE DIRECTOR
PILAR THOMAS

Dear Friends,

Looking back at the whirlwind of activity unleashed over the summer—not just here in D.C. but in the heart of Indian Country and Native Alaska—I might be inclined to take a long vacation! Instead, I am energized about what's on the horizon.

Highlights of our work this past summer include:

- Hosting five regional tribal energy project development and finance workshops with more than 140 attendees and three Tribal Leader Forums
- Providing technical assistance to more than 20 Tribes in Alaska and the lower 48 states through START and our on-request technical assistance programs
- Presenting Tribal Renewable Energy Series webinars to more than 350 attendees in partnership with the Tribal Energy Program and Western Area Power Administration (Western).

In August I took the helm once again as Acting Director of the Office when Tracey LeBeau stepped down as Director and headed west to lead Western's Transmission Infrastructure Program in Colorado. We have made tremendous progress under Tracey's leadership, and in the coming year we will pick up the pace as we expand our efforts to address the pressing energy challenges tribal communities face.

Fortuitously, we doubled our staff this past year, giving us the people power to push onward without missing a beat. As we move full sail ahead into FY 2015, we will expand our capacity-building efforts with a new lineup of START projects, additional training opportunities, and a pilot Alaska Energy Ambassadors Program. We also have a great opportunity to partner with other federal agencies as part of the White House Council on Native American Affairs.

Read on and learn more about our ongoing efforts to provide Tribes with the tools, information, and resources they need to reduce carbon pollution, foster economic development, and increase energy security by harnessing their untapped energy resources.

—Pilar Thomas

SHARING KNOWLEDGE

NATIVE STUDENT INTERNS MAKE A DIFFERENCE IN INDIAN COUNTRY

The DOE Tribal Energy Program Summer Internship Program provides opportunities for Native American college students to get on-the-ground experience with existing tribal renewable energy projects and direct exposure to opportunities and barriers to implementing renewable energy projects on tribal lands. Many student interns go on to work for DOE and its national labs, or find other work improving energy security and sustainability in Indian Country. Since 2002:

2014 summer interns Aaron Cate, Thomas Jones, and Len Necefer with Tribal Energy Internship Program Manager Sandra Begay-Campbell of Sandia National Laboratories. Photo from Sandia National Laboratories, NREL 31793

- 31 undergraduate and graduate interns have participated
- 18 different tribal affiliations have been represented
- 15 different student majors have been represented
- 29% of interns were converted to year-round status
- 13% of interns were hired as full-time employees or Sandia National Laboratories contractors.

Read blogs from 2014 student interns at www.energy.gov/indianenergy/news-blog-0.

WINNING THE FUTURE

Grand Ronde Solar Projects Reduce Pollution, Cut Costs

Challenge: Situated on nearly 12,000 acres in the heart of Western Oregon's scenic coastal range, the Confederated Tribes of the Grand Ronde Community of Oregon has a strong connection to the earth and nature and a deep commitment to environmental stewardship. Landless from 1954 until 1983 when the Grand Ronde Restoration Act returned a portion of its land base, the Tribe has faced an uphill climb building out the infrastructure and services required to support and sustain its community of approximately 5,000 members.

The tribal government, which relies primarily on revenues from the Spirit Mountain Casino to operate, is challenged to find innovative ways to both improve social and economic stability and promote a healthy, sustainable environment for future generations. In 2009 the Grand Ronde Tribal Housing Authority (GRTHA) began pursuing opportunities to develop renewable energy projects and implement energy efficiency measures.

Even though electricity in the Northwest is priced fairly reasonably relative to other parts of the country, and renewable energy is preferred by the Tribe, there was skepticism about the payback period and return on investment for renewable energy projects. As part of a long-term energy strategy, the Tribe sought to gain experience and knowledge in solar energy development.

Solution: In an effort to address concerns about renewable energy project costs and make the best use of funding available at the time, the GRTHA invested just under $200,000 in a 42-kilowatt (kW) facility-scale solar system in April 2010. By tapping Oregon's Energy Trust, which provides technical assistance and cash incentives to promote energy-saving upgrades, the Authority reduced its up-front capital investment in the $283,000 system by 30%.

A total of 203 photovoltaic (PV) arrays were installed on two newly constructed parking lot carport structures. The solar system generates 60% of the electrical needs of the GRTHA office and maintenance shop, and continues to pay for itself through avoided energy costs, positioning the agency to achieve its projected 33-year payback on its investment.

Buoyed by the success of its initial foray into renewable energy and incentivized by Oregon's net-metering program, the GRTHA installed 368 solar panels at a low-income housing complex for tribal elders, completed in fall of 2013.

During the summer months, PV arrays on south-facing units and carport structures generate 100% of the electricity for the development's 23 apartments, which also benefit from energy-saving design features like high-efficiency heat pumps for heating and cooling and solar tubes for enhanced daylighting.

> ***"Residents living in the housing units that were constructed previously without solar now want solar on their units. They are envious of the lower electrical bills."***
>
> —Don Coon, GRTHA Housing Improvement Coordinator

Solar PV Benefits:

- Reduced electricity costs by generating 60% of the energy needs of the GRTHA's office and maintenance shop
- Lowered electricity bills for 23 low-income Tribal Elder Housing units, which use solar power to generate anywhere from 36% to 83% of their electricity annually
- 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 elder housing complex in the summer months
- Displaced fossil fuel use with clean, renewable energy, minimizing environmental impact and advancing tribal goals of environmental sustainability, economic stability, and self-determination.

PV panels installed on Grand Ronde Tribal Housing Authority carport. Photo from GRTHA, NREL 31797

BUILDING BRIDGES

FEDERAL AGENCIES JOIN FORCES TO PROMOTE SUSTAINABLE, RESILIENT TRIBAL COMMUNITIES

Based on feedback received during the annual White House Tribal Nations Conference, President Obama established the White House Council on Native American Affairs in June 2013. Chaired by Department of the Interior Secretary Sally Jewell, the Council includes representatives from more than 30 federal departments and agencies working collaboratively to promote the development of prosperous and resilient tribal communities by:

1. Promoting sustainable economic development;
2. Supporting greater access to and control over healthcare;
3. Improving the effectiveness and efficiency of tribal justice systems;
4. Expanding and improving educational opportunities for Native American youth; and
5. Protecting and supporting the sustainable management of Native lands, environments, and natural resources.

At the 2013 conference, Secretary Ernest Moniz and Secretary Jewell established the Council's Tribal Energy Subgroup to address opportunities for federal agencies to coordinate on tribal energy development efforts. Co-chaired by Secretaries Jewell and Moniz, the Subgroup comprises five working groups:

- Policy and Project Coordination—evaluate and align programmatic and policy efforts to support tribal energy development
- Financial and Technical Assistance—evaluate and align financial and technical assistance programs that leverage agency resources, funding, and expertise
- Federal Procurement—evaluate opportunities for federal agencies to purchase energy products and services from Tribes
- Capacity Building and Workforce Development—evaluate, align, and coordinate tribal capacity building and workforce development programs
- Regulatory Process—evaluate opportunities to streamline and accelerate regulatory processes and address regulatory compliance challenges.

The Tribal Energy Subgroup and its working groups have begun initial outreach efforts to Indian Country to gain input on the Subgroup's efforts. To learn more about the working groups, or to provide input on the Subgroup's efforts, please email IndianEnergy@hq.doe.gov.

Chairman Charlie Vig of the Shakopee Mdewakanton Sioux Community.

LEADING THE CHARGE
Chairman Vig Champions Progress, Sustainability

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 on tribal lands. This issue we had the opportunity to speak with Chairman Charlie Vig of the Shakopee Mdewakanton Sioux Community (MN).

What is your motivation for championing energy development in your community?

We should consider every viable opportunity to conserve energy and be more energy efficient. The Shakopee Mdewakanton Sioux Community (SMSC) is working to make consistent progress each year to be more mindful of our energy use. We owe that to the generations that will come after us.

What's the most important thing you learned from Chairman Stanley Crooks?

The late Chairman Crooks and I share the belief that the SMSC has a responsibility to be a good neighbor to other Tribes. We need to help others and give back. Sometimes that means making a donation, and other times it involves giving our time or providing leadership on an important issue. Being a good neighbor is critical to helping all of Indian Country make progress.

What do you see as the greatest opportunities for Indian Country?

Sustainable energy is one of the greatest opportunities in Indian Country. Prospects differ from one Tribe to the next, but solar and wind energy are two good examples. Energy crops are also an exciting opportunity for Tribes that have a significant land base that is suitable for agriculture.

What are the biggest challenges?

Two of the biggest threats relate to education and nutrition. As education dollars are cut, I want to make sure Native American students aren't left behind. Our children need to have access to the learning and leadership opportunities that will help them succeed in life and keep their Tribes moving forward. They also need access to nutritious foods—regardless of their family income—so that we can reverse the health problems that plague Indian Country.

What would you like your legacy to be?

As Chairman and a member of the SMSC Business Council, my job is to plan far enough ahead so that the decisions we make today will set the Tribe up for success well into the future. I want my legacy to be progress.

ON THE HORIZON

NOV. 5–17
National Strategy for the Arctic Region Consultation Sessions
Barrow, Bethel, Fairbanks, Kotzebue, Nome, and Unalaska, Alaska

DEC. 1–5
Bureau of Indian Affairs Tribal Providers Conference
Anchorage, Alaska

FEB. 3–5
Project Development Workshop
TBD
Sponsored by DOE

FEB. 9–13
Alaska Forum on the Environment
Anchorage, Alaska
Sponsored by DOE

FEB. 23–25
NCAI 2015 Executive Council Winter Session
Washington, D.C

MARCH 9–12
National RES
Las Vegas, Nevada

INDIAN COUNTRY ENERGY ROUNDUP

Tribal leaders and energy champions from across the country attended events focused on accelerating energy development in Indian Country this past summer.

WORKSHOPS

Five regional Tribal Energy Project Development and Finance Workshops—held in Alaska, Colorado, Minnesota, Montana, and Oregon—walked attendees through the process for developing commercial-, community-, and facility-scale renewable energy projects on tribal lands. The workshops, sponsored by the DOE Office of Indian Energy and the Tribal Energy Program with support from NREL, drew more than 140 attendees.

WEBINARS

The DOE Office of Indian Energy, Tribal Energy Program, and Western hosted four Tribal Renewable Energy Series webinars attended by more than 350 people in June, July, August, and September. The webinars explored a variety of topics related to tribal energy project development, from project implementation and operations and maintenance to financing options and mechanisms.

FORUMS

Three Tribal Leader Forums were held and focused on biomass renewable energy opportunities and strategies in Portland, Oregon; financing and investing in tribal renewable energy projects in San Diego, California; and waste-to-energy opportunities in Washington, D.C. Each forum gave tribal leaders and staff opportunities to hear directly from key DOE program leaders and interact with other Tribes, federal agencies, and industry representatives.

ICEIWG MEETINGS

The Indian Country Energy and Infrastructure Working Group held meetings in May and August covering administration matters, DOE program and budget updates, intergovernmental affairs, and tribal policy.

Ted Wright of the Stillaguamish Tribe and Shannon Loeve of Turtle Mountain Band of Chippewa review resource maps during the Denver workshop. Photo by Amy Glickson, NREL 31795

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indianenergy@hq.doe.gov

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