

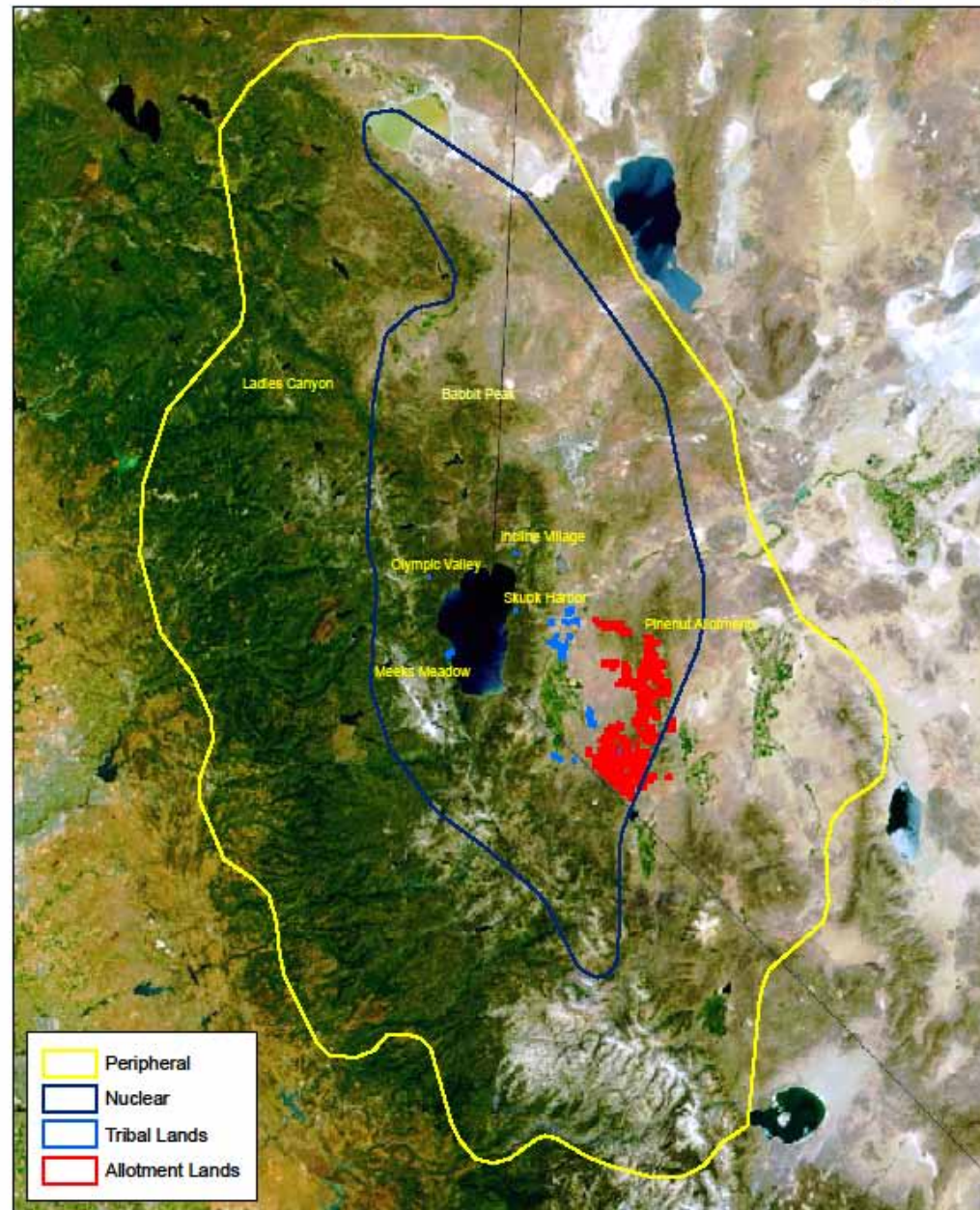
Tribal Energy Program 2011 Program Review

Washoe Tribe of Nevada & California

Presented by Tara Hess-McGeown

Washoe Tribe of Nevada & California

The Washoe Tribe of Nevada and California is a federally recognized Indian Tribe organized pursuant to the Indian Reorganization Act of June 18, 1934 (48 Stat. 984), as amended. The Tribe is governed by a twelve-member, elected Tribal Council that includes two representatives from each of the four Community Councils, two off-reservation representatives, a Reno/Sparks Indian Colony representative, and a Tribal Chairman elected at-large. The Chairman and Washoe Tribal Council are elected to four-year terms.



Tribe's Energy Vision

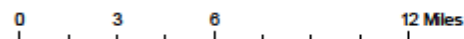
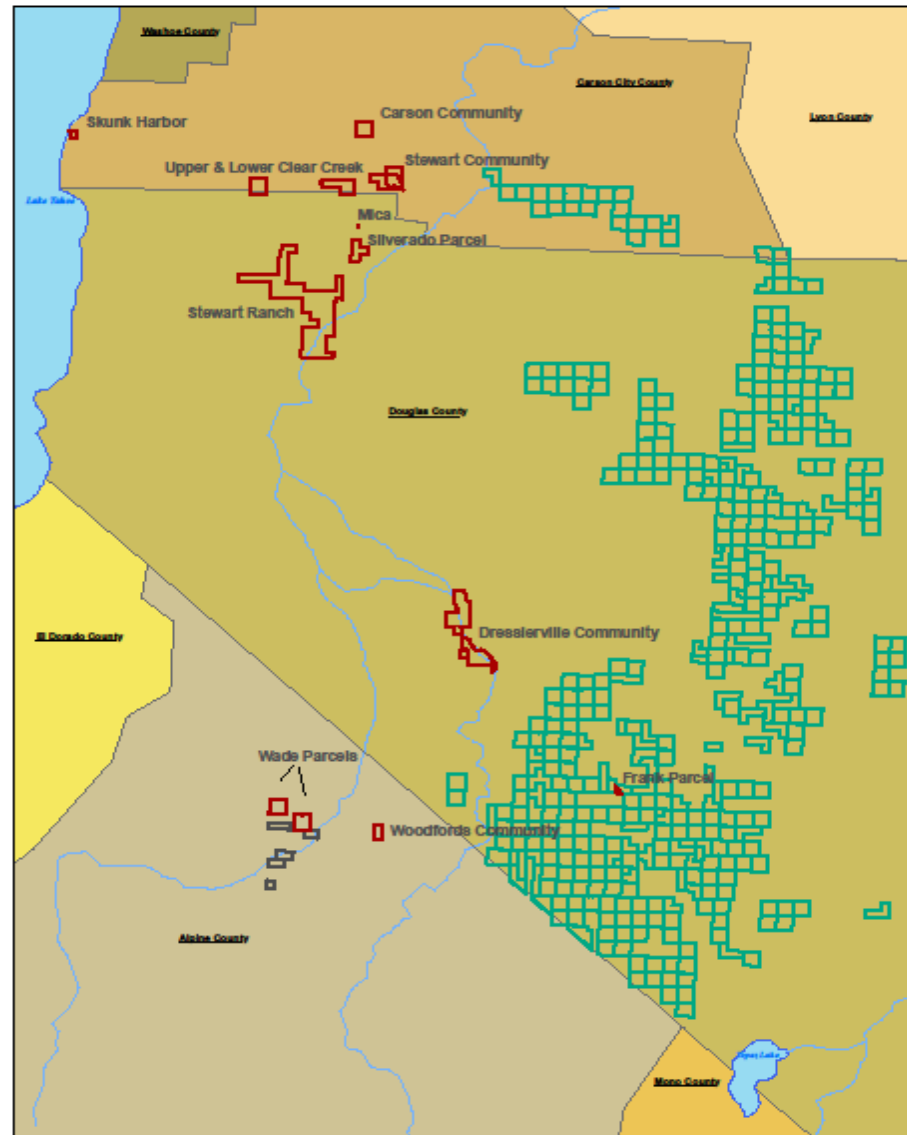
- To guarantee the availability of affordable and reliable energy to all its members
- To further the Tribe's goals for self-sufficiency and self-determination through empowerment in the Tribe's energy interests
- To reduce the environmental impact of the Tribe's energy consumption
- To promote conservation and efficient use of energy
- And contribute to the Washoe Tribe's local economy consistent with the Tribe's overall mission which is "To achieve and ensure the integrity of an environment and way of life that is one with nature's elements, community, traditions, and values that promote health and wellness for future generations."
- To produce all of the Tribe's energy needs through renewable sources by 2025

Tribe's DOE Energy Projects

- **EECBG**
 - On-going thru December 2012
- **Alternative Feasibility Study**
 - On-going thru July 2012
- **Washoe Wisk'e'em Project**
 - November 2011
- **First Steps** – Nevada Inter-Tribal Energy Consortium
Energy Organization Enhancement Project
 - September 2011 thru 2013

Washoe Tribal Trust Lands and Allotment Lands

Washoe Tribe of NV and CA
Environmental Protection Department
GIS: J. Johnson
February 2007



This data has been compiled on a geographic information system for the use of Washoe Tribe Environmental. The data does not represent any warranty, and should not be used as a replacement for the authoritative source. The Washoe Tribe assumes no liability for the accuracy or completeness of this data.

EECBG

The Tribe performed energy audits on our administration and community buildings to assess how much energy each building consumes, inefficiencies in the heating and cooling systems, and to be able to pinpoint where the buildings are losing energy. The audits will provide recommendations on what measures the tribe can take to make each building more energy efficient. The project includes an educational outreach component to staff and community members on energy matters and the importance of energy conservation.

Project Update

- Energy Audits
 - Completed 22 energy audits on tribal administration and community buildings
 - Met with appropriate building and maintenance supervisors to gather necessary energy related data to perform energy audits
 - Conducted an eight-hour energy efficiency workshop for tribal staff and members
 - Continued Alternative Energy Task Force meetings

Activities Yet To Be Completed...

- Energy Efficiency Retrofits
 - Recently submitted necessary paperwork to DOE for approval of next phase of our grant - we are waiting for approval
 - Priorities will be made to make appropriate retrofits based on the results and recommendations of the energy audits
 - Coordinate with appropriate building and maintenance supervisors to review all energy audit reports to discuss energy conservation measures.

Alternative Feasibility Study

To create a Comprehensive Final Report based on the feasibility study that determines which alternative energy resource has the greatest return per dollar on Washoe land and concludes if a large-scale alternative energy project is an economically viable alternative for the Washoe Tribe to invest in given current technology while respecting cultural and environmental values.

Project Update

On-going throughout grant project period:

- Project oversight and administration
- Preparing deliverables
- Tracking completion of activities, tasks and milestones
- Continued meetings of the Alternative Energy Task Force
- Posting information regarding energy project related activities in Tribal newsletters, website, Tribal Council monthly reports, Community Council

Training staff –

- One-day Energy Efficiency Training to Staff & Community Tribal Members
- Energy Study Report on Tribal Administration & Community Buildings
- 96-hour Nevada Focus Energy Efficiency Training and Certification Program for Commercial and Public Building Operators
- Commercial Real Estate: Best Practices to Improve Energy Performance

Feasibility Study Update Continued...

Researching all opportunities available to work with other organizations, local governments and agencies and use their data and instrumentations –

- Desert Research Institute – Clean Technologies and Renewable Energy Center
- University of Nevada - Reno –
 - W.M. Keck Earth Science and Mining Research Information Center, Great Basin Center for Geothermal Energy, Nevada Bureau of Mines and Geology,
- Western Regional Climate Center
- Bureau of Land Management - Nevada State Office
- Department of Energy Tribal Energy and Environmental Information Clearing House
- U.S. Environmental Protection Agency: Portfolio Manager
- Nevada Intertribal Energy Consortium

Meet and collaborate with the following organizations:

- **NVEnergy** - to discuss transmission lines and a potential power-purchase agreement estimate a gross income calculation and determine possible load capacity demand
- **Carson City's Biomass Plant** - facility closed in 2010.
- **Bently Biofuels Plant** - to discuss biofuels capabilities
- **Nevada Energy Audits**
- **Energy Masters**
- **Planet Safe Systems**
- **Black Rock Solar**
- **Garey-Sage, Davidsons, Inc.**

Calculating Tribal Energy Demand: administrative, commercial and residential buildings on Tribal land

- Completed administrative and commercial buildings through energy study reports. Will work with the Washoe Housing Authority for residential.

Evaluating the number of heating and cooling days to determine where the primary emphasis should be

- Completed through energy study reports

Activities Yet To Be Completed...

- Continue to meet and collaborate with the following organizations:
 - NVEnergy - to discuss transmission lines and a potential power-purchase agreement estimate a gross income calculation and determine possible load capacity demand
 - Bently Biofuels Plant – to discuss biofuel capabilities
- Overlaying resource maps with Washoe Tribal Land maps to be able to:
 - Identifying the best drilling location for geothermal research
 - Use hand-auger to drill approximately 50 two-meter holes
 - Using pyrometer to confirm data collection
- Review all collected information and identifying data gaps
- Performing any environmental assessment and cultural resource surveys for proposed data collection sites
- Draft Comprehensive Alternative Feasibility Project Plan

Washoe Wisk'e'em Project

This project was a small pilot-project to demonstrate to tribal members and surrounding communities that wind is a viable alternative energy resource in Carson Valley that can be used to offset energy costs. The tribe installed two out of our four proposed vertical wind turbines.

Project Update

Stewart Community
Head Start



Dresslerville Community
Center



Activities Yet To Be Completed...

- On-going data collection utilizing Windsync software
 - Share with information with Community Council leaders
- Close Out Report
 - To include the activities performed, a comprehensive description of the results achieved, and lessons learned
- Submit DOE paperwork
 - Final technical report
 - Final financial status report
 - Federal cash transaction report
 - Allowable costs
 - Patent report
 - Property certification

First Steps

This project will further the achievement and implementation of common goals and strategic energy plans of Nevada member tribes. The project is intended to enhance the capacity of the Nevada Inter-Tribal Energy Consortium (NITEC) to effectively assist Nevada tribes to technically manage tribal energy resources and implement tribal energy programs.

Background on NITEC

July 23, 2009 – Inter-Tribal Council of Nevada (ITCN) Executive Board of Directors unanimously voted to support the creation of a subcommittee for the development of NITEC. ITCN envisioned that the formation and development of NITEC, access to information about the energy programs, initiatives and technical resources available for the 27 NV tribes would substantially increase the success rate of economic development in energy related projects.

Project Update

- Job description for NITEC Program Manager
 - Under review with our personnel committee
 - Will be reviewed and approved by Tribal Council in December 2011 meeting
- NITEC Program Manager
 - Will have an office in our Washoe Environmental Protection Department under the direct supervision of the environmental director, Ms. Marie Barry
- Overall goal of Projects
 - Assist in the development of renewable energy projects for Nevada tribes
 - Research and coordinate technical assistance in energy related projects;
 - Research and provide information on various funding sources and cooperative agreements for potential renewable energy projects;
 - Seek opportunities and coordinate energy related training and job development;
 - Support renewable energy product development and production for tribes;
 - Provide training and conferences on energy related topics;
 - Collect and disseminate the latest energy related information and contacts to the tribes;
 - Assist tribes in identifying potential projects;
 - Provide assistance in economic and business development issues; and
 - Seek opportunities in green products and technology development.

Black Rock Solar

In April of 2010 the tribe and a non-profit organization, Black Rock Solar, applied to the SolarGenerations rebate program administered in conjunction with its public utility NV Energy. All three installation rebate projects were approved in September 2010.

During this past summer, the tribe installed two photovoltaic units totalling 95 kW of solar power to the Dresslerville Community Center and the Washoe Community Health Center. The third installation will be completed by the end of next month at our Stewart Community totalling another 28 kW.

In conjunction with the project is an apprenticeship program; this has allowed three Washoe tribal members to participate in the installation process with hands-on experience. Included in the apprenticeship program is a four-day course intended to prepare the installers for the OSHA PV Certification Test.

Apprenticeship Opportunities

The objectives of the training program:

- Conduct site assessments
- PV system design
- Specify appropriate support structure and implement mechanical design
- Implement electrical design that meet safety, code compliance and functional requirements
- Conduct acceptance tests and inspections and commissioning PV system installations
- Evaluate, troubleshoot, and maintain PV systems

Fred Pete (Dresslerville Community member), Norman Fillmore (Carson Community member), and Rupert Powers (Stewart Community member)



Project Update

Dresslerville Community
Gym



Washoe Community
Health Clinic



Lessons Learned
and
Future Plans

Contact Information

Tara Hess-McGeown

Environmental Specialist II

Washoe Tribe of Nevada and California

Office: 775-265-8691

Cell: 775-781-1538

Email: tara.hess-mcgeown@washoetribe.us