



Washoe Tribe of Nevada and California Environmental Protection Department

DOE Solar Projects 2015

Four Tribal Communities; Stewart, Carson Colony, Dresslerville, Woodfords (Alpine County, CA)



Project Locations and Goals

- ▶ Stewart Wellness Center: Gymnasium
- ▶ Dresslerville Community: Elder's Center, Headstart, Community Center, and Healing Center
- ▶ Carson Colony: Carson One Stop Smokeshop and Gymnasium

Project Objective: The Washoe Tribe of Nevada and California is to construct seven ground-mounted photovoltaic solar arrays throughout three Washoe communities in Nevada, covering approximately 2 acres and providing 161 kW accumulatively. The completed projects would assist to offset electrical costs to these Tribally-owned buildings. The goal of the proposed projects is to accumulatively reduce the energy usage of these seven buildings by 100%. All of the buildings are located on Tribal trust land.

Management

- Black Rock Solar (BRS) was hired by the Washoe Tribe to provide:
- Specifications and construct the proposed solar arrays.
- Because of the time-sensitive nature of this project (i.e the expiration of NV Energy's SolarGeneration Program incentives, which are being used as cost-share), the Washoe Tribe and Black Rock Solar has been very proactive in getting this project off the ground and utilizing the authorization from the EERE to incur pre-award costs in order to ensure this project is completed on schedule.

Planning Phase

Subtask 1.1: Physical Site Analysis - Complete

- ▶ The Washoe Tribe entered into a contract with BRS for the specification and construction of the proposed solar arrays. The physical site analysis was completed, including analysis by BRS for suitable sites, community input on proposed sites, and final decisions on array locations were made.
- ▶ The Washoe Tribe's Environmental Department completed the Environmental Assessments for each site prior to construction.
- ▶ The Tribal Historic Preservation Office (THPO) was contacted, and it was determined that a cultural monitor would need to be onsite during any ground disturbance activities. Although the expense for cultural monitors had not been included in the original budget, travel funds allocated for a conference that had already past were utilized for the salaries of the monitors.

Electrical Site Analysis

*Electrical Site Analysis - **Complete***

- The electrical service of the facilities was evaluated for interconnection, the power usage of the facility was determined, and the location for the interconnection was established.

Plan Design

Plan Design Creation - Complete
BRS completed the plan set for all array locations.

Submission of Electrical Plans

- ▶ *Submission of electrical plans to NV Energy - Complete*
- ▶ Plans were approved and NV Energy provided one-line electrical drawings.

Construction Phase

- ▶ *Task 2.0: Construction Phase*
- ▶ *Subtask 2.1: Material Ordering and Receiving - Complete*
- ▶ All material were ordered and arrived onsite.
- ▶ *Subtask 2.2: Ground Mount Array Site Clearing - Complete*
- ▶ Vegetation and obstructions were cleared as needed. Some trees were removed and/or trimmed to prevent shading of solar panels.

Site Survey

- ▶ *Subtask 2.3: Site Survey - Complete*
- ▶ All sites were surveyed. Electrical trenches were dug and conduit were installed. THPO cultural monitors were present during trenching and grubbing and clearing of the site.
- ▶ *Subtask 2.4: Post, Racking, and Module Installation - Complete*
- ▶ Posts and racking system were installed. THPO cultural monitors were present during post-hole digging and subsurface ground disturbance.

Construction Continued

- ▶ *Subtask 2.5: Electrical Inverter and BOS Installation*
- ▶ *Subtask 2.6: Grid Interconnection*
- ▶ *Task 3.0 Post Construction/Inspection/Energizing*
- ▶ *Subtask 3.1: Solar Array Electrical Inspection*
- ▶ *Subtask 3.2: Renewable Meter set by NV Energy*
- ▶ *Subtask 3.3: Photovoltaic System Commissioned by NV Energy*

Comments

- ▶ The Washoe Tribe received approval from the Department of Energy for a waiver of the DOE's 50% cost share match requirement, to a reduced requirement of 19.6% cost share. The Washoe Tribe will provide the 19.6% reduced cost share requirement through NV Energy SolarGenerations Incentive Program. NV Energy only rewards incentives after projects have been completed, therefore, no cost shares were contributed this quarter. We are expecting cost share contributions from NV Energy in Quarter 2 or 3.
- ▶ NV Incentive Packets- The NV Energy Incentives Packets and Net Metering Agreements were signed by Tribal Chairman, Neal Mortimer and sent back to Black Rock Solar to be signed and submitted to NV Energy for their review and approval.
- ▶ Security Fencing- The security fencing was installed for all seven sites.

Comments Continued

- ▶ Electrical Engineer Inspection- An electrical engineering firm, was hired by Black Rock Solar to conduct a preliminary electrical inspection of the solar arrays, inverters and sub electrical panels. The third-party Electrical Engineer recommended the installation of another ground at the end of the solar arrays and more ground clips in between the solar panels.
- ▶ NV Energy- An inspector from NV Energy came onsite make sure the required signage was posted on the Service Panels and to see if the required poster was in place. All of the posters have been delivered and hung in prominent locations as required by the NV Energy Incentive Rebate requirements.
- ▶ Contract Documents- the Contract Service Agreement was negotiated between the Washoe Tribe and Black Rock Solar. The draft Service Agreement was reviewed by the Tribe's Environmental Department and Legal Counsel. After some modifications the Contract was signed by the Tribe and Black Rock Solar.
- ▶ Tribal Monitors-were hired for subsurface disturbance, trenches, sub-grading, etc.

Letter of Intent/ MOU

- ▶ Letter of Intent- Contractor proposed to install the Project on behalf of the Washoe Tribe of Nevada and California (Customer). The Customer, a public entity under the laws of Nevada, plans to participate in the SolarGenerations photovoltaic incentive program, administered in conjunction with its public utility, NV Energy, and is interested in owning a solar generation system necessary to obtain the incentives.
- ▶ The two agreements between BRS and the Tribe were the Letter of Intent, and a Memorandum of Understanding (“MoU”).
- ▶ Upon signing the Letter of Intent, BRS applied for NV Energy’s SolarGenerations incentives on behalf of the Tribe. If this Project is awarded, one or more SolarGenerations incentives during the next round of applications, the Tribe agreed to assign the rebates to BRS.

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2015 Solar Savings Report

- ▶ The Report generated by our Departmental Accountant substantiated savings with all 7 Tribal Facilities, however, we won't get a true report until the next Solar Savings Report is generated, which should be soon.
- ▶ Average savings identified were from 37% to 100%.

Carson One Stop Smoke Shop/Gymnasium



Stewart Gym



Final Staff Maintenance Training



Acknowledgements:

- ▶ Washoe Environmental Staff:
- ▶ Michelle Hochrein, Environmental Coordinator
- ▶ Shelley Kinerson, Washoe Project Accountant
- ▶ Travis Trethan, Washoe Project Accountant
- ▶ Debby Carlson, Washoe Grants Writer
- ▶ Black Rock Solar
- ▶ Washoe Tribal Council
- ▶ Washoe Community Members and Community Councils
- ▶ U.S Department of Energy

