Bear River Band of the Rohnerville Rancheria
Renewable Energy Options Analysis

Bear River Band of the Rohnerville Rancheria History

- Established in 1910 in Rohnerville, CA
- Federal recognition was removed in 1960- the majority of Tribal members lost their land and homes due to owing CA state taxes
- In early 1990's the Tribe purchased 60 acres near Loleta
- For the first 10-12 years the Tribe struggled to build homes and infrastructure for its members

Bear River Band of the Rohnerville Rancheria History

- Since that time there has been much growth, with several business established, including a casino, hotel, Tobacco Traders, recreation center and gas station.
- In the mid-2000's the Tribe purchased 113 acres of land. 45 homes and a 2-story community center have been built.

Renewable Energy Development

Energy Options Analysis

1621-1503

BEAR RIVER BAND OF ROHNERVILLE RANCHERIA

Project Summary

The Schatz Energy Research Center (SERC) will collaborate with the Bear River Band of Rohnerville Rancheria (BRB), as a subcontractor under BRB, to develop an analysis of renewable energy options that focus on BRB's strategic vision of zero net annual utility energy consumption. In alignment with BRB's Energy Development Strategic Plan, SERC will: Develop current and future load profiles of residential and commercial properties, leverage and expand on recently identified demand-side reduction strategies, update past renewable energy resource assessments, assist with the development of a tribal advisory committee, assess the status of existing infrastructure, and develop an implementation plan that packages this work into an actionable guide to pursue future renewable energy development.

Renewable energy options analysis and demand-side efficiency options for zero net annual utility energy consumption.

Key Personnel/Organizations

Edwin Smith, EPA Director, Bear River Band of the Rohnerville Rancheria,

Dr. Arne Jacobson, Director : Schatz Energy Research Center (Humboldt State University), Contractor

Budget and Timeline

Federal funds: $180,00 Cost-share: $ 20,000 Total: $200,000

Key Milestones & Deliverables

Year 1:	Renewable Energy Resource Assessment, and Baseline and Optimized Load Profiles
Year 2:	Production Readiness Assessment, Implementation Plan

Project Outcomes

Identifying clear recommendations and next steps for moving the implementation plan forward into a feasibility analysis stage.

Implementation Plan that packages this work into a comprehensive and actionable guide the Tribe can use to pursue future renewable energy development.

Completed Tasks

- Reviewed past energy assessment work
- Performed an energy assessment of the existing commercial properties
- Reviewed the estimated modeled energy use for residential properties
- Developed estimated load profiles for planned projects
- Developed a projected combined load profile based on the results from the commercial, residential, and planned facilities analyses
- Performed an assessment of the heating load for properties with the available data

Renewable Energy Resource Assessment

- Focus: Identify locations available for on-site renewable energy systems and to estimate the amount of annual energy that could be generated from these systems

Renewable Energy Resource Assessment: Solar

- Overview of Tish Non Community Center Renewable and Storage System to evaluate the system performance
- Identification of potential solar system locations and quantifying available land
- Sizing of PV systems and estimating on-site solar energy generation using PV Watts

Renewable Energy Resource Assessment: Wind

- Overview of past wind studies
- Identification of potential wind turbine locations
- Estimation of number of turbines
- Estimation of on-site wind power and energy production

Demand-side Management Opportunities Assessment

- Focus: Review the previous work completed to leverage and identify demand-side opportunities for renewable energy

Demand-side Management Opportunities Assessment

- Review of recent energy audit work and associated recommendations
- Identification of specific equipment from the audit report that may provide near-term cost-effective energy savings or fuel-switching opportunities
- High energy analysis for possible near-term HVAC retrofits

Demand-side Management Opportunities Assessment

Schatz Energy Research Center

Thank you!

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