

Smith River Rancheria

Wind & Biomass Power Generation Feasibility
Changed to
Wind, Solar, Conservation & Utility Changes



DOE Tribal Energy
Program Review
October 23 - 27, 2006

Greg Retzlaff

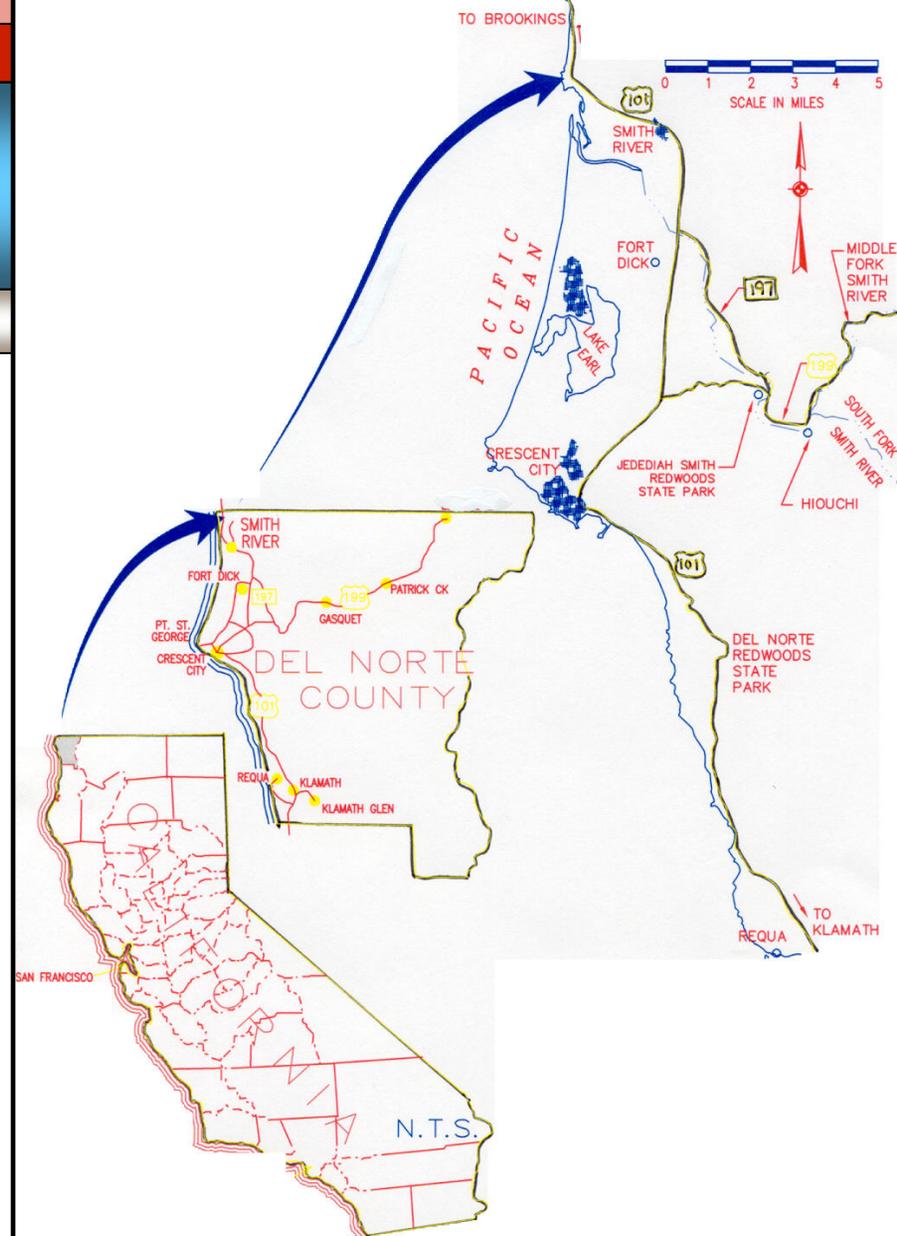
Strategic Energy Solutions, Inc.

Smith River Rancheria

- Coastal Community of 600 in Northern California and Oregon
- Next Door to Booming Community
- Additional Development Opportunities

Location

- Northern California Location
- Members in Oregon
- Multiple Jurisdictions
 - Federal
 - Del Norte County
 - Curry County



Location

- Coastal Setting
- Wind Rich Area



Location

- Rancheria Location
 - Forested
 - Near Forest Products Company



Past Development

- Casino
- Gas Mart
- Community Center
- Head Start and Day Care Facility
- Pursuing Wastewater Treatment
- Plans for Six Other Tribal Facilities



Past Study

- Energy Planning and Self-sufficiency Study
 - Best Technology Options
 - Reduce Power Cost
 - Energy Self-sufficiency
 - Utilize Natural Resources
 - Establish Energy Organization
 - Training

**Final
Technical
Report**

**Energy Strategic
Planning & Self-
Sufficiency Project**

Prepared For
Smith River
Rancheria

March 30, 2005

SES

Project Overview

- Initial Plan - Determine Feasibility of Power Generation
 - Technical
 - Economic
 - Biomass
 - Wind

Participants

- Smith River Rancheria
 - Russ Crabtree Tribal Administrator
 - Ed Wait Grants & Contracts Officer
 - Nita Rolfe Program Coordinator
 - Dorothy Perry Administrative Assistant

Participants (Continued)

- Consultants
 - Greg Retzlaff, Strategic Energy Solutions, Inc.
 - Lead Consultant, Economic, Benefits, Biomass
 - Stephen Anderson, Evergreen Energy Corporation
 - Wind, Utility, Power Marketing
 - Leonard Gold, L. S. Gold & Associates, Inc.
 - Transmission, Interconnect, Benefits

Participants (Continued)

- Consultants (Continued)
 - Terry Thomas, Environmental Management Associates
 - Environmental Benefits, Impacts, Permitting Plan
 - JD Williams, Tribal Law Office
 - Deregulation, Jurisdiction, Community Awareness, Community Support Strategies

Participants

- Possible Partnerships
 - Local Forest Products Firm
 - Incumbent Utility - Pacific Power, California
 - Regional Cooperative - Coos-Curry Electric
 - Energy Funds
 - Independent Power Producers (IPP's)

Objectives

- Economical & Technical Feasible
- Evaluate Wind & Biomass
- Tribal Energy Load Assessment
- Community Need For Energy vs. Export
- Conservation Opportunities
- Power Market Assessment
- Site-specific Resource Monitoring

Wind Potential

- Progress
 - Site Identified Near Two Other Towers
 - Verbal Agreement from Owner
 - Capital Costs Defined
 - Anticipated Revenues
 - Permitting Challenges
 - Financial Projections
 - Draft Report

Wind Site Challenges

- Wind Program Challenges
 - Ridge Sites with High Residential Value
 - Million Dollar Properties
 - Political Quagmire - Wish to Avoid
 - Very Difficult Development Hurdles
 - Potentially Harmful Relations
 - May Tarnish Tribal Image in Community

Redirected Wind Objectives

- Redirected Wind Efforts
 - Avoid Controversial Sites
 - Only Sites Owned by Tribe
 - Smaller Scale & Next to Tribal Building
 - Member Owned Sites and Closer to Reservation
 - Little Political Exposure
 - Better Chance of Net Metering Contract
 - Little Interference by Third Parties

Redirected Wind Objectives

- Redirected Scope, Budget & Schedule
 - Different Emphasis on Site Selection
 - Maintaining Same Budget
 - Nearly Identical Schedule - First Qtr 2007

Biomass Power Generation

- Background
 - Biomass Resource Available
 - Existing Forest Products Company
 - Possible Cogeneration Partnership
 - National Forest Representative Interested



Biomass Power Generation

- Actions, Activities & Achievements
 - Forest Products Firm Slow Response
 - Limited Information Provided
 - Preliminary Sizing and Configuration

Biomass Power Generation

- Biomass Program Challenges
 - Plan Too Reliant on Third Party Partner
 - Third Party's Longevity Unknown
 - Third Party's Core Business is Producing Wood Products
 - Biomass Timber Lands Considered Aboriginal Territories

Redirected Activities

- Wind and Biomass Power Generation
 - Drop Biomass Power Generation Work
 - Pursue Wind Sites Owned by Tribe or Tribal Members
 - Option for Greatest Tribal Benefit
 - Avoided Cost from the Incumbent Utility
 - Selling this Power to Third Parties
 - Local Distribution System - Receive Full Retail Value

Redirected Activities

- Solar
 - Consider Feasibility for Casino, Tribal Headquarters Building, Community Center and Head Start Building
 - Assess Technical Feasibility
 - Exposure
 - Construction
 - Configuration of Building

Redirected Activities

- Solar
 - Economic Evaluation
 - Accurate Equipment Cost
 - Study and Understand Solar Incentives Available
 - Investigate Funding Sources
 - Assess Economics

Redirected Activities

- Conservation
 - Evaluate Casino, Office Headquarters, Community Center & Head Start Building
 - Assess General Construction
 - Review Heating/Cooling Equipment & Operation
 - Investigate Lighting
 - Building “Tightness” and Weather Stripping

Redirected Activities

- Conservation
 - Study and Understand Incentives Available
 - Investigate Funding Sources
 - Assess Economics

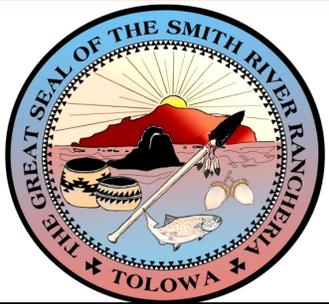
Redirected Activities

- **Interconnected Utilities**
 - PacifiCorp and Coos Curry Electric
 - Ability to Sell into Oregon or California Market
 - On Site Generation
 - Purchase from Either Market
 - Future Tribal Enterprises
 - Added Redundancy for SRR

Summary

- Discontinue Biomass Evaluation
- Tribal Sites Only for Wind
- Solar Potential
- Conservation Measures
- Utilities Interconnection Advantages

Wind, Solar, Conservation & Interconnected Utilities



Smith River Rancheria

Russ Crabtree - Tribal Administrator

Ed Wait - Grants & Contracts Officer

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