Smith River Rancheria

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

DOE Tribal Energy
Program Review
October 23 - 27, 2006

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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
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
• Consultants
  – Greg Retzlaff, Strategic Energy Solutions, Inc.
    • Lead Consultant, Economic, Benefits, Biomass
  – Stephen Anderson, Evergreen Energy Corporation
    • Wind, Utility, Power Marketing
    • 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

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Russ Crabtree - Tribal Administrator
Ed Wait - Grants & Contracts Officer

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