Makah Nation
Renewable Energy Development on Tribal Lands Project
November, 2003

U.S. DOE Grant Number:
DE-PS36-03GO93002
Project Overview

- Set up Makah Tribal utility organization capable of carrying out utility business functions of the tribe.

- Develop markets for the power from the Makah Wind Plant.

- Finalize development tasks presently underway

- Installation of 30 MW of wind generation capacity.
Project Location

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The wind resource estimates presented on this map were developed by TractWind Solutions using Wind Atlas, a mesoscale atmospheric simulation system, at a spatial grid resolution of 400 meters (one-quarter mile). The estimates have been validated by the National Renewable Energy Laboratory (NREL) and independent meteorologists but should be confirmed by direct measurement according to wind energy industry standards.
Summary of the Project Objectives

Objective 1) - Formation of Tribal Utility Authority– Analysis of local energy usage patterns

Objective 2) - Wind data analysis, Economics/pricing Studies

Objective 3) - Transmission/Wheeling Tariff Evaluation – Economics/pricing Studies

Objective 4) - Complete Environmental Profile and Mitigation Strategy

Objective 5) - Marketing of Power

Objective 6) - Negotiate Commercial Deal with Wind Developer (Cielo) to initiate construction

Objective 7) - Reporting to DOE and project partners
Project Site
Project Site
Background on Tribal Utilities

- Legal summary and other cases
- Tactical approaches with LDCs
- Importance of council unity
- Often times a “win - win” outcome
Tribal Utility Benefits

- Exercise tribal sovereignty
- Develop infra-structural self-sufficiency
- Diversify tribal assets
- Create an entity that facilitates development
- Create a sustainable profit center
Steps toward Utility Formation

• Information gathering on load and economics

• Appraisal of distribution assets

• Negotiation with incumbent utilities

• Negotiation of power/maintenance contracts

• Utility formation
### Project Participants

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Relevant Background Information

- Makah Tribal has been approached before
- Existing relationship with Cielo Wind Power
- 2002 DOE grant for preliminary work
- Economic need
- Clallam County PUD is interested
- Clallam is BPA full service customer
Questions

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