Renewable Resources: Supporting Customer Energy Choices

DOE Tribal Energy Program Review

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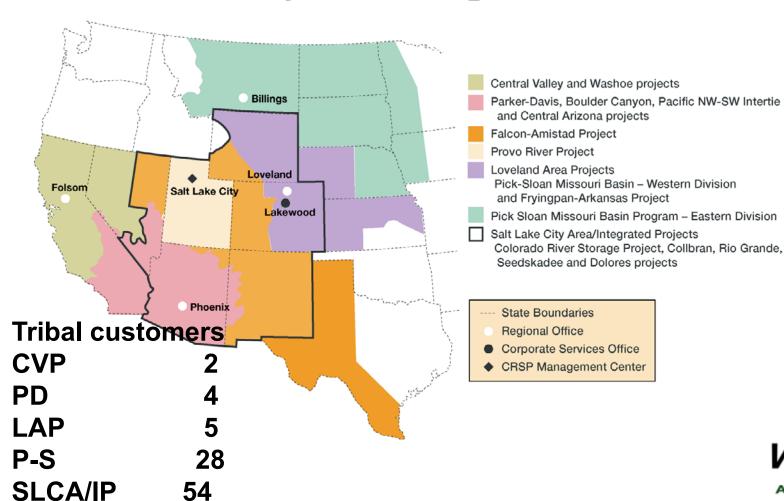


Western overview

- Markets 10,000 MW of hydropower
- 15 states
- 671 wholesale power customers
 - 87 tribes
- Marketing plans, rates are project-specific
- Power rates are cost-based and lower than other generation sources
- No load growth responsibility—but we purchase energy to firm up hydro contractual commitments

Western's Service Territory

Project Marketing Areas



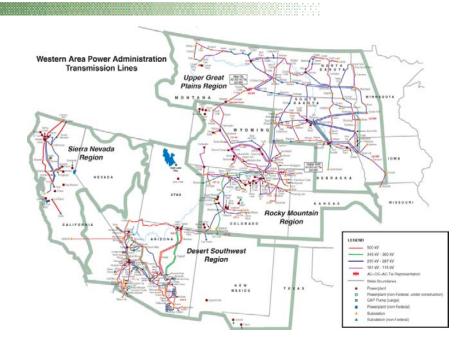
Services for Tribes

- Power customers
 - LAP, P-S resource pool allocations
- Transmission service
- Rights of way
- Renewable energy
 - Tribal energy development
- Energy Services
 - Tribal wind equipment loans



Transmission Overview

- 17,000+ miles of transmission
- \$201 M transmission revenue
- 300 substations
- 444 comm sites
- 3 balancing authorities/4 primary, 4 back-up control centers
- \$ 1 B annual revenue





Open Transmission Access

- Always had open access
- Open Access Transmission Tariff adopted voluntarily
- OATT amended to incorporate large generator procedures, small generator procedures, wind interconnection technical standards



Western and Renewables

 Primary goal: Assist customers in meeting their needs

 DOE partnership/Tribal support

- REC purchases
- Use IRP for long-term purchases
- Study participant
- 300+ MW wind interconnected
- 69 wind interconnection requests/14,000+ MW





Sucesses with Renewables

- Assist with Rosebud Sioux wind project
- ICOUP Tribal energy interest solicitation
- Promote customer renewables
- 496,000 MWh of RECs in 2007
- WGA energy initiatives
- ES Website: www.wapa.gov/es
- REpartners: www.repartners.org
 - Technology transfer workshops
 - Webinars



Renewables for Federal Agencies

- Western acts as agent for other Federal agencies in acquiring renewable energy and certificates/green tags
 - Annual call to agencies (spring), RFP for RECs (summer)
- EPA, DOE, Air Force, Army
- More than 439,000 MWh of tags acquired by Western in 2007
- Could help agencies meet EPAct purchase goals



EPAct 2005: Sections 503 and 2605

- Tribal power allocation study
 - > to study use of PMA power and barriers
 - recommend ways to improve hydropower delivery
- Report delivered to Congress in 2007
 - Summarizes PMA-specific actions taken to reduce barriers
 - Identifies tribal allocations



EPAct 2005: Section 2606

- Study on the feasibility of a demonstration project to supply tribal wind to firm Missouri River hydro
- Analysis of costs, benefits including energy security
- Joint study by Energy, Corps and Interior
- Draft report expected to be available for public comment end of 2008



EPAct 2005: Section 203

- No national portfolio standard enacted
- Federal Purchase Requirement "to the extent economically feasible and technically practicable" of escalating renewable energy amounts (3-7.5%, starting 2007)
- Double credit for renewables produced on Indian land and used at Federal facility
- Could influence transmission needs



Key learnings

- Improved ability to work with developers
- Staff better understand tariff, interconnection issues
- Continuing partnerships with customers, trade associations, DOE, industry, states, others

Renewable Initiatives

- Potential initiatives identified
- Continuing conversation about Western's role
- Agency prioritization completed; incorporated into Western's strategic plan
- Adequate resources needed
- Goal: No adverse impact on existing customers

Current initiatives

- UGP programmatic wind EIS
- UGP Tribal wind study
- NPA wind study
- Wind Interconnection Workshop, Webinars
- Tribal lands transmission availability study
- WGA REZ
- 1222 Solicitations of Interest



UGP Wind PEIS

- Joint project with FWS, RUS cooperating
- Scoping ended Nov. 10, 2008
- Western's UGP service territory
 - IA, MN, MT, NE, ND, SD
- Address "generic" impacts, concerns
- Ongoing government-to-government tribal consultation
- Project info:

http://plainswindeis.anl.gov



EPAct 2005: Section 1222

- Western authorized to upgrade or construct new transmission facilities if:
 - ➤ In a national interest electric corridor
 - Congestion is reduced
 - Necessary to meet increased demand
 - No duplication of existing or proposed facilities
- Third party financing allowed, but capped at \$100,000,000 through 2013
- Complementary to existing construction authority
- Solicitation of Interest planned

Ongoing Renewable Initiatives

- WestConnect wind/solar study
- Consumer-owned Utility Wind Energy Integration cost-share program
- APA wind-hydro integration analysis
- Renewable data provider role for WREGIS, M-RETS
- Wind interconnection workshop, Jan 21-23
 - -Some support available for interested tribes
 - -Contact Randy Manion, 720-962-7423, manion@wapa.gov

Key Areas of Future Focus

- Alleviate transmission congestion
- Integrate wind into the grid
- Expand partnership with Native American tribes to foster economic development



Actions within existing authority

- Adopt renewables-friendly transmission services: In progress
- Conduct project-specific wind-hydro integration studies: In progress
- Expand our role in acquiring renewable resources/green tags: In progress
- Identify existing and planned tribal generation for purchase or marketing by Western: In progress

Actions: Existing Authority

- Be flexible in allowing use of hydro allocations by tribes
- Encourage regional integrated resource planning: In new IRP rules
- Develop customer tools for IRP public participation: Completed
- Programmatic EIS on wind in Missouri River basin: In progress

Possible Actions with New Authority

- Construction of transmission for delivery of renewables: Reid legislation proposed; AWEA white paper, etc.
- Nonreimbursable funding for purchase of firming energy priced above market
- Renewables revolving fund
- Renewable Energy Fund

