

NMPRC Transmission Briefing



*A personal commitment
to New Mexico*

Santa Fe, NM

May 19, 2005

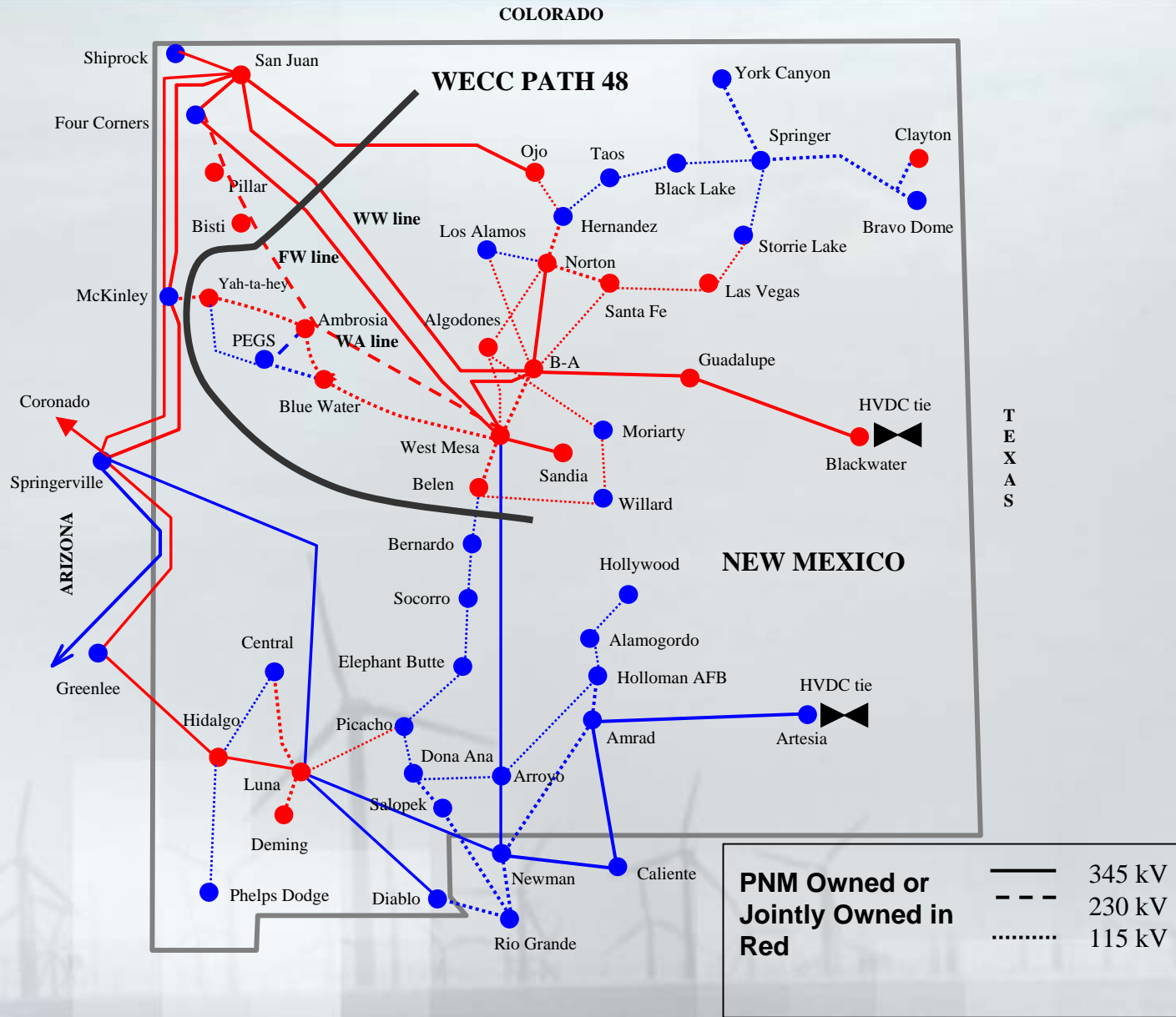
Greg Miller, Director

Transmission Development & Contracts

Topics for Discussion

- **Transmission System Overview**
- **Southwest Approach to Regional Transmission Issues**
- **WestConnect Initiatives**
- **Renewable Facilitation**
- **Q&A**

Major New Mexico Transmission Lines



A Few Statistics.....

- **Line mileage (incl. jointly owned lines)**
 - **165 miles of 500 kV (Near Palo Verde)**
 - **1556 miles of 345 kV**
 - **180 miles of 230 kV**
 - **1000 miles of 115 kV**

- **2004 PNM System Load 1655 MW**
 - **All time peak 1661 MW in 2003**

- **PNM Control Area Load 2147 MW**

System Use

- **Move PNM's resources to our customers loads**
- **Open access provided per FERC Tariff**
 - **Network & point-to-point ; short or long term (>1 year)**
- **PNM provides large amounts of wheeling service**
 - **35% to 40% of system use is for others**
- **Network customers include:**
 - **Tri State, WAPA, LAC, NEC and PNMM**
- **Point-to-point Customers include:**
 - **EPE, NTUA, TNMP, WAPA and PNMM**
- **PNM must plan & construct its system to meet all customer needs**

Recently Completed System Upgrades

- **Examples :**
 - **BA Station reconfiguration, 11/2004**
 - Improved reliability to “backbone” system
 - \$3.2M
 - **Valencia Division improvements, 10/2004**
 - Added needed capacity for growing loads
 - \$3.8M
 - **Norton to Hernandez 115kV line reconductor, 8/2004**
 - Relieved most limiting constraint on system
 - \$5.3M
 - **Taiban Station and associated facilities, 6/2003 station, 7/2004 network upgrades**
 - Interconnection and delivery of wind farm energy
 - \$8.8M

Planned Facilities

- **New Transmission Source for Santa Fe Area**

- **Cost Estimate: \$ 13.5 million**
- **In-Service Date: 4/2006**

- **Santa Fe to Las Vegas 115kV transmission line improvement**

- **Cost Estimate: \$2.3 million (Tri-State will cost-share)**
- **In-Service Date: 12/2007**

- **Western NM Shunt Capacitor**

- **Cost Estimate: \$0.6 million**
- **In-Service Date: 3/2006**

- **Upgrade West Mesa-Algodones 115kV line (“AL line”)**

- **Cost Estimate: \$1.8 million**
- **In-Service Date: 2004 thru 2006**

- **Rio Puerco Switching Station**

- **Cost Estimate: \$17.7 million**
- **In-Service Date: 2011**

- **FW line Loop in to Rio Puerco Switching Station**

- **Cost Estimate: \$5.1 million**
- **In-Service Date: 2011**

Southwest Perspective on RT0 Issues

- **Predominance of non-FERC jurisdictional transmission owners**
- **Voluntary, collaborative approaches needed to ensure widest participation**
- **Reliability must be maintained at highest possible levels**
- **Centralized operation of energy markets not necessary or cost justified**
- **Market solutions should be developed regionally**
- **Costs need to be balanced with the benefits to be gained**
- **Build incrementally on what works today**
- **Phasing-in of improvements has widespread support**

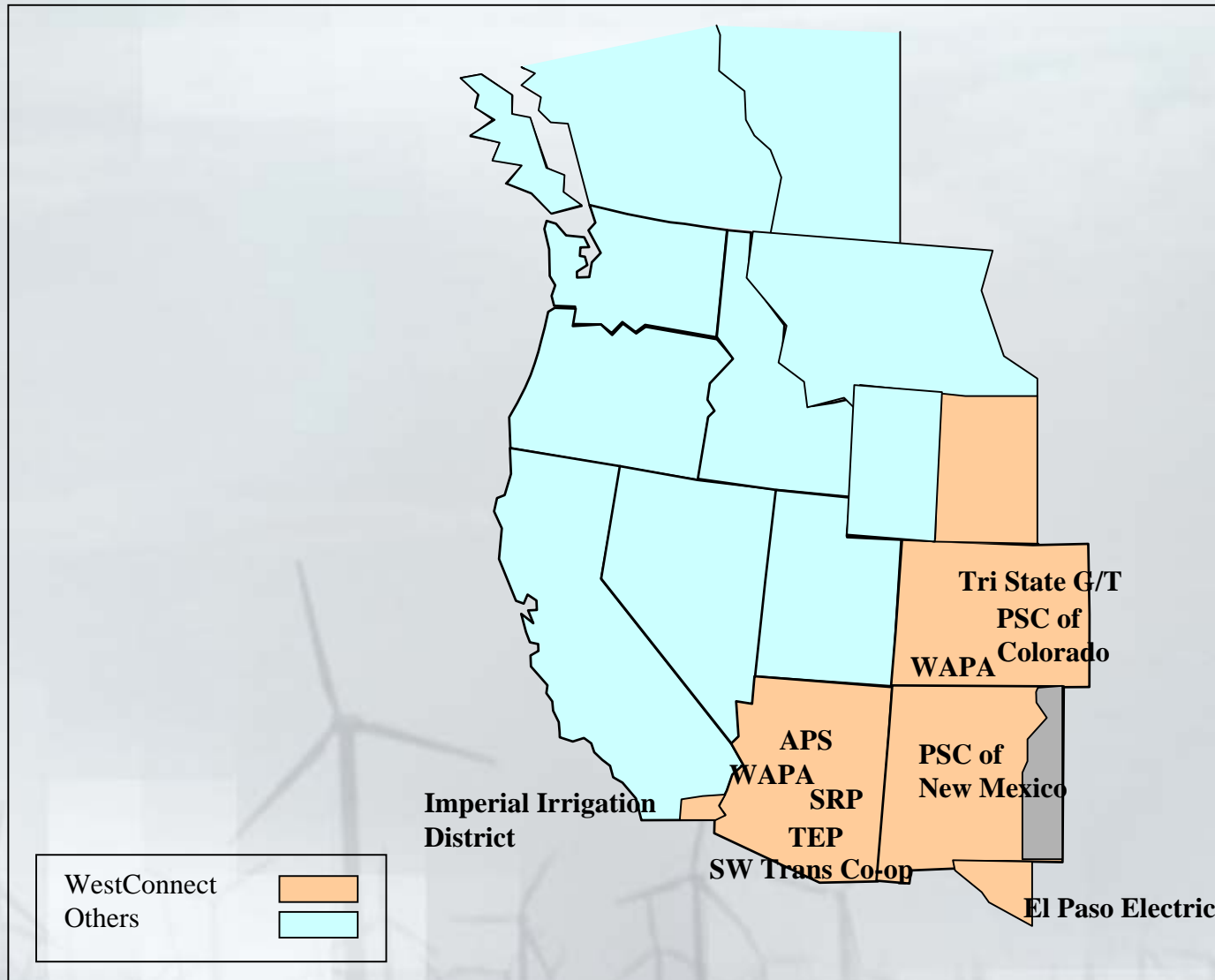
WestConnect MOU

- **Effective December 6, 2004; 10 Transmission Owners in the Western Grid**
- **Diverse mix of public, private and cooperatively owned**
- **Purposes:**
 - **Investigate feasibility of cost-effective transmission access, planning and efficiency improvements for the southwest wholesale market**
 - **Stakeholder driven**
 - **Incremental initiatives supported by business case**
- **Web page www.westconnect.biz**

Existing Signatories

- Arizona Public Service Co.
- El Paso Electric Co.
- Imperial Irrigation District
- Public Service Co. of New Mexico
- Public Service Co. of Colorado
- Salt River Project
- Southwest Transmission Cooperative
- Tri-State G & T
- Tucson Electric Power
- Western Area Power Administration

WestConnect Footprint



WestConnect Initiatives

- **Cost-Benefit Study of RTO Implementation**
- **wesTTrans**
- **Transparency in TTC/ATC Determinations**
- **Subregional Planning Enhancement**
- **Evaluate regional market monitor**
- **Other investigations**

Cost Benefit Study



- **Data, scope and cost misunderstandings and vendor ownership change have delayed the assessment**
- **All issues now resolved**
- **Study of costs and benefits with and without an RTO in the southwest to be completed late summer 2005**

wesTTrans -

One Stop Transmission Shopping

**Arizona Public Service Co.
Imperial Irrigation District
Sacramento Municipality Utility District
Salt River Project
Los Angeles Department of Water & Power
WAPA (Rocky Mountain)
Tri-State G&T
Sierra Pacific Power Co.
Nevada Power Co.
Southwest Transmission Coop
Puget Sound Energy
Tucson Electric Power.
El Paso Electric
Public Service Co. of New Mexico**

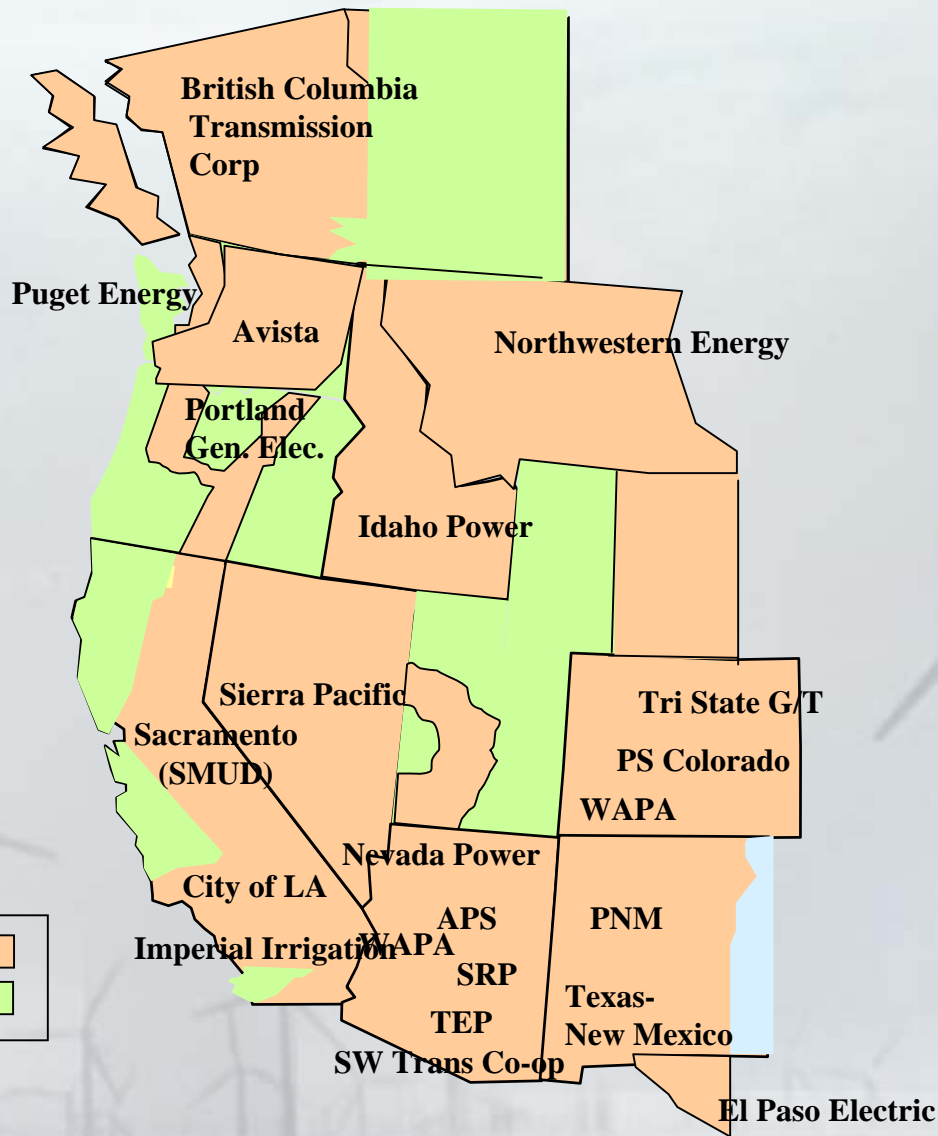
**Texas New Mexico Power Co.
Portland General Electric
Northwestern Energy
Idaho Power Co.
WAPA (Desert South West)
Avista
Public Service Co. of Colorado
British Columbia Transmission
Corporation**



Geographic Coverage



A voluntary, collaborative effort of 22 western transmission owners and still growing!



TTC/ATC Open Stakeholder Process

- **TTC= Total Transmission Capability**
 - System limit
- **ATC= Available Transmission Capability**
 - Transmission above firm needs posted for open access
- **TTC/ATC Process Purpose - Promote confidence through understanding of transfer capabilities and committed uses.**
- **Open process for stakeholder input**
- **Initial informational meeting February 22, 2005, PHX**
- **Second meeting to further explore TTC/ATC determinations June 22, 2005, Westminster, CO**

Subregional Planning

- **Promote efficient regional transmission planning in the southwest**
- **Open participation format**
- **Include the needs of all entities in a single subregional plan**
- **Evolve from informal forum to one with more defined governance, funding and reporting structure**
- **Common footprint and mission leads to bringing SWAT subregional group under WestConnect sponsorship**

Market Monitoring

- **Proposal to Create West-Wide Market Monitoring Entity (SSG-WI)**
 - **NW Utilities working with FERC & States to define scope and find sources of funding**
 - **Would create new expensive organization**
- **PNM and APS have market monitor proposals nearing implementation stage**
 - **Meets needs, much lighter approach**
- **WestConnect exploring feasibility of extending PNM/APS approach to the subregional footprint**

OTHER WESTCONNECT INITIATIVES

- **Evaluate potential pilot program to remove rate pancaking**
 - **Feasibility evaluation underway**
 - **Limitations would exist:**
 - **limited term, only new short term transactions (<1year), must have POR/POD within WestConnect footprint**
- **Ancillary services investigation**
 - **Investigate opportunities to gain further efficiencies thru coordinated provision of:**
 - **Imbalance energy resources**
 - **Regulation resources**
 - **Similar to present reserve sharing arrangements**
- **Teams assigned and analysis papers due late this year**

Renewable Facilitation

- **PNM Support for Renewable Development**
 - New Mexico Wind Energy Center
 - Governor's Transmission Task Force
 - FERC NOPRs on wind interconnection and integration
 - Panelists at several FERC and Industry Sponsored Conferences
- **Interconnection Queue Contains large magnitude of potential wind and one biomass generators**
- **Others considering interconnection within PNM control area**

Questions?

