Renewable Energy Projects
Greg Nelson, Director Utility Services
Public Service Company of New Mexico
Utility RE Needs = NM Renewable Portfolio Standard

- Based on Energy per year as a percent of retail load
  - 6% through 2010
  - 10% 2011-2014
  - 15% 2015-2020
  - 20% 2020+

- Must be provided from a diverse portfolio beginning in 2011
  - Wind and Solar each 20% of portfolio
  - Biomass/Geothermal 10% of portfolio
  - Distributed resources 1.5% growing to 3% (2015) of portfolio
  - Balance is discretionary
New Mexico Renewable Energy Potential
What are some renewable energy issues?

• Operation
  – Low capacity factors and/or small plant sizes translate into higher costs – must meet Reasonable Cost Threshold
  – Lack of dispatchability, or economic penalty for dispatching resource vs. must run
  – Intermittent Resource (solar and wind)
  – Power must be supplied around the clock

• Transmission
  – Inefficient utilization of transmission capacity (must contract for 100% capacity factor)
  – Lack of available transmission capacity

• Siting
  – Proximity to load centers
  – Proximity to needed resources and infrastructure
  – Site complexities (ownership, characteristics/contours, contamination, etc.)
PRC process and timing for development

- Request for Proposals (RFP) process (7-10 months)
  - Create RFP (2 months)
  - Issue RFP (2 months)
  - RFP Analysis (1-2 months)
  - Negotiations (2-4 months)

- Regulatory approval process (3-15 months)
  - Include desired resource in annual Renewable Energy Procurement filing (3-6 months)
  - Or make CCN filing (6-15 months)

- Project Construction (12-36 months)

- Total time to get project developed (2-5 years!)
Economic incentives and financing RE projects

- **Incentives**
  - Cost of money
    - Direct Loans
    - Loan Guarantee with no Fee
    - Tax-Exempt Financing
  - Cost reduction
    - Accelerated Depreciation
    - Cost Sharing
  - Federal tax incentives
    - Investment Tax Credit (ITC)
    - Production Tax Credit (PTC) with a Fixed Rate
  - NM State tax incentives
    - Investment Tax Credit (ITC)
    - Production Tax Credit (PTC) with a Variable Rate and Cap
  - Local tax incentive
    - Property Tax Exemption

- **Financing**
  - Combination of debt and equity
    - Utilities typically at 50/50
    - Independent power producers 70/30 or more
  - Monetization of tax credits
    - Taxable entity with ability to take all of the tax credits in 1st year of operation
New Mexico Wind Energy Center cont...
One day (1-minute intervals) from TEP Springerville