



HELPING OUR MEMBERS WORK TOGETHER
TO KEEP THE LIGHTS ON... TODAY AND IN THE FUTURE.

SPP Wholesale Markets and Retail Markets

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SouthwestPowerPool



SPPorg



southwest-power-pool

Our Mission

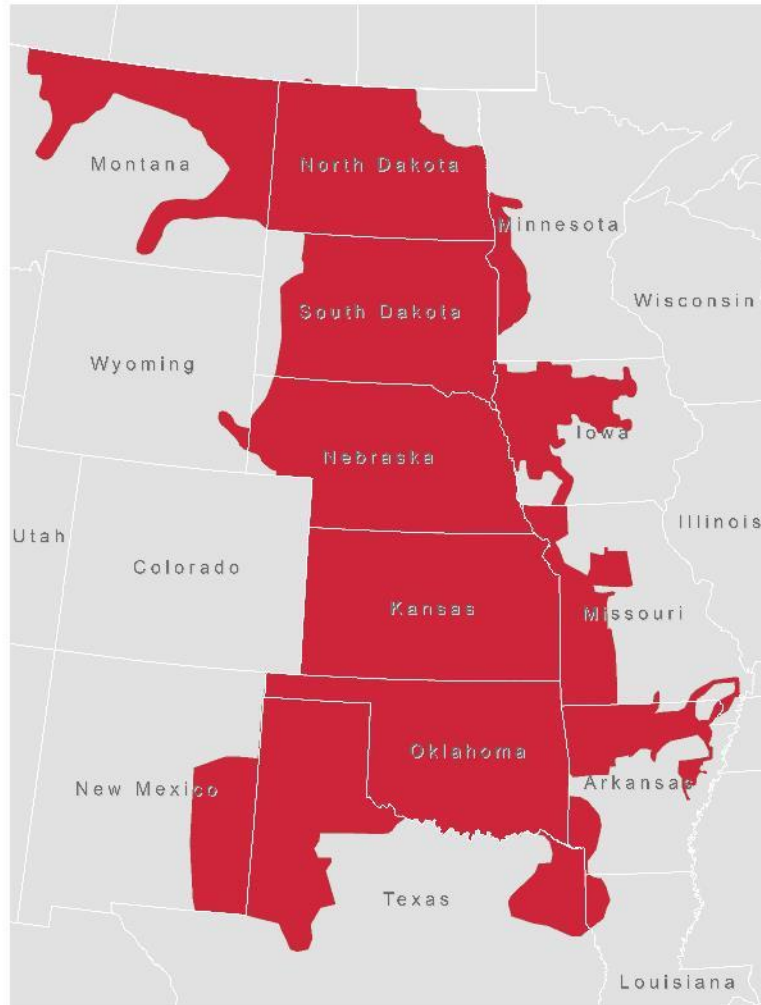
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A close-up photograph of a glass bottle being heated by a flame. The bottle is tilted, and the flame is visible at the top of the neck. A red line is drawn on the bottle, indicating a crack or break. The background is a soft, out-of-focus blue and white.

THE SPP DIFFERENCE

- Relationship-based
- Member-driven
- Independence Through Diversity
- Evolutionary vs. Revolutionary
- Reliability and Economics Inseparable

CURRENT SPP FOOTPRINT: MEMBERS IN 14 STATES



- **Arkansas**
- **Kansas**
- **Iowa**
- **Louisiana**
- **Minnesota**
- **Missouri**
- **Montana**
- **Nebraska**
- **New Mexico**
- **North Dakota**
- **Oklahoma**
- **South Dakota**
- **Texas**
- **Wyoming**

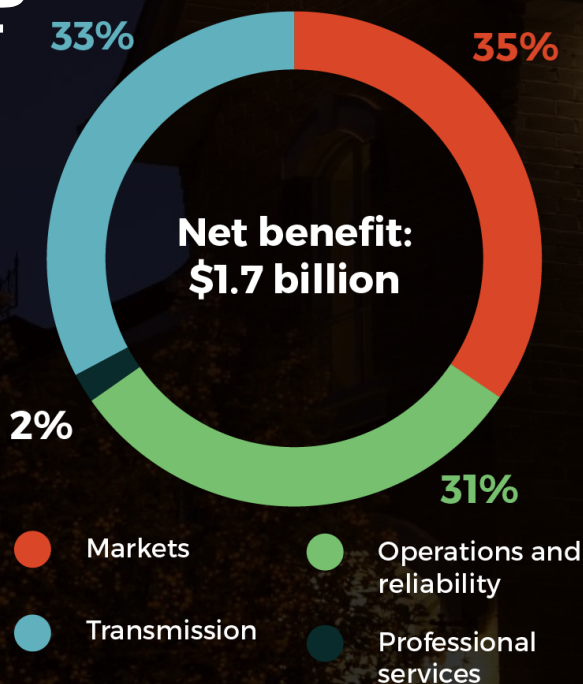
RTO REQUIREMENTS

8 Functions outlined in FERC Order 2000:

- Tariff administration and design
- Congestion management
- Parallel path flow
- Ancillary services (including energy imbalance, regulation, and operating reserves)
- OASIS administration and TTC/ATC calculation
- Market monitoring
- Planning and expansion
- Interregional coordination

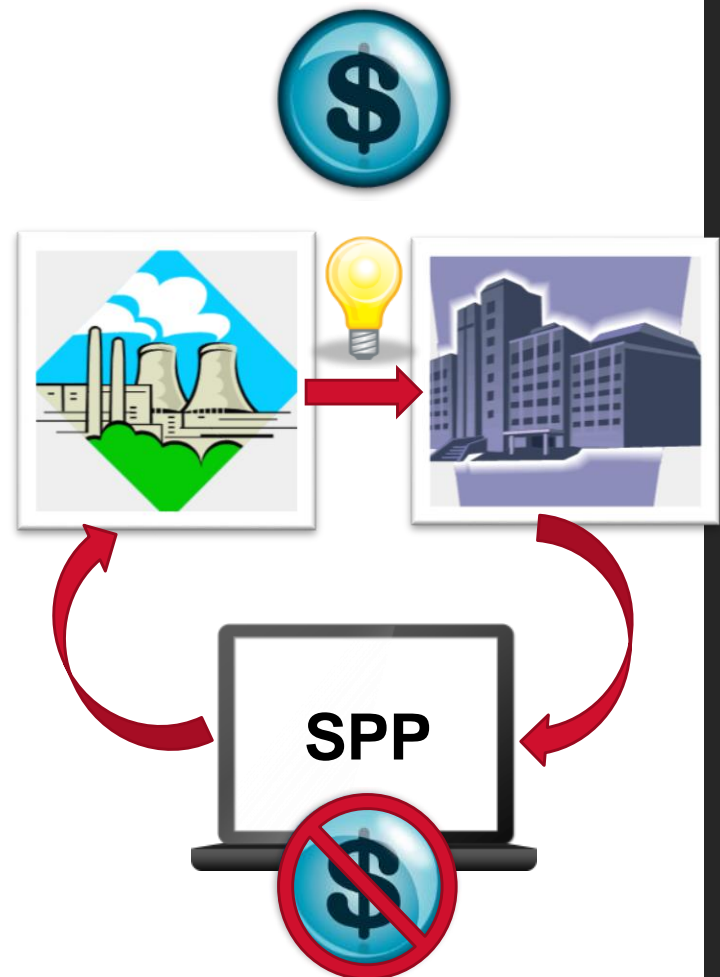
THE VALUE OF SPP

- Transmission planning, market administration, reliability coordination, and other services provide net benefits to SPP's members in excess of more than \$1.7 billion annually at a benefit-to-cost ratio of 11-to-1.
- A typical residential customer using 1,000 kWh saves \$5.71/month because of the services SPP provides.



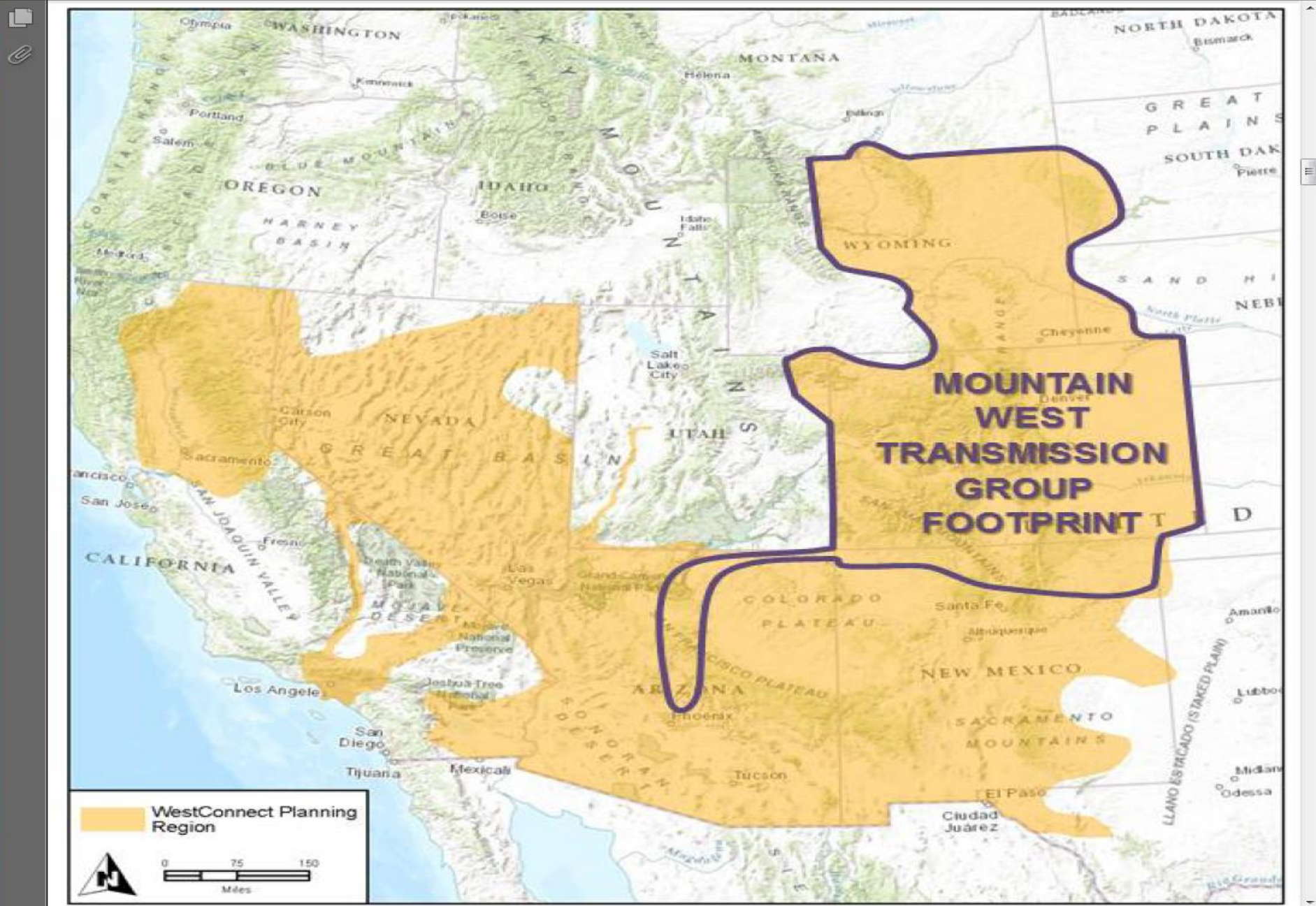
SPP'S ENERGY MARKET: INTEGRATED MARKETPLACE

- Similar to other competitive regional electric markets
- Matches buyers and sellers of energy
- Day-Ahead market includes unit commitment
- Real-Time spot market for energy
- Procures necessary ancillary services
- Consolidated Balancing Authority for reliability and optimized dispatch
- SPP does not have a Capacity Market
 - Reserve Margin at 30%+
 - Extensive renewable penetration

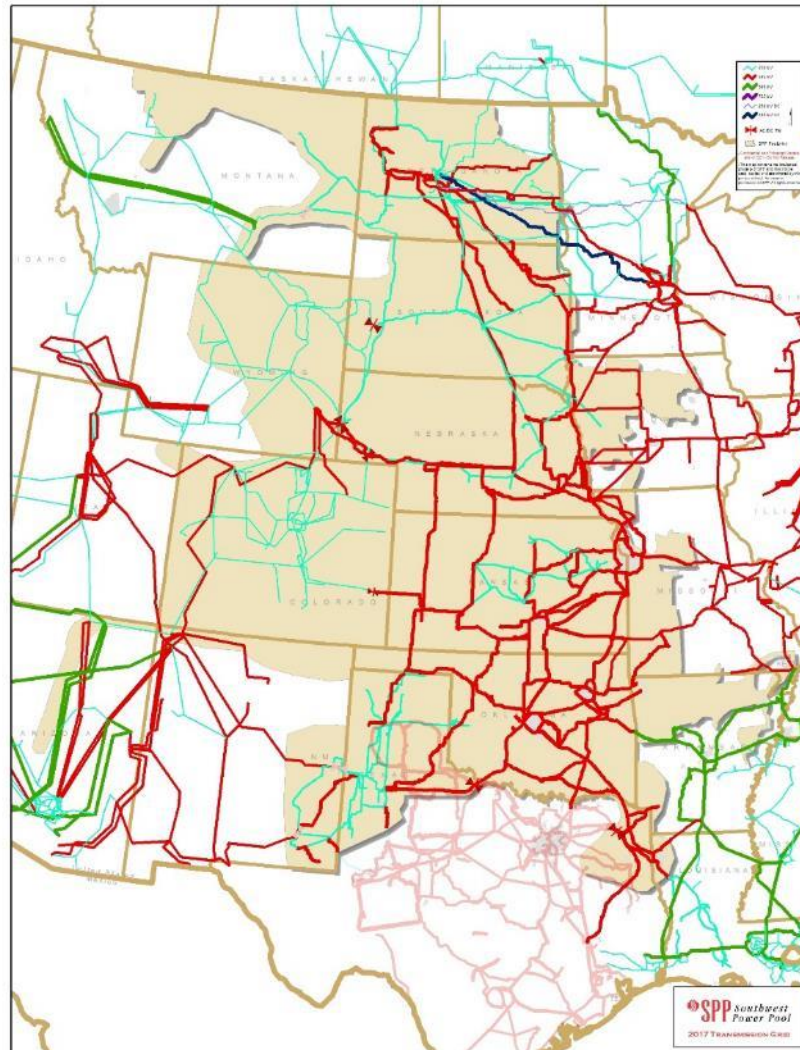


SPP IN THE WEST

- SPP is currently in discussions with the Mountain West Transmission Group to join SPP including the Integrated Marketplace
- MWTG will use SPP's market systems and experience to provide a lower cost and lower risk market implementation
- SPP and MWTG are interconnected through four DC Ties
- Market implementation will consider possible expansion
- MWTG is in the WestConnect Planning region which includes portions of Nevada



SPP AND MOUNTAIN WEST TRANSMISSION GROUP (MWTG)



REGULATORY CONSIDERATIONS

- A multi-state market requires Federal Energy Regulatory Commission approvals regarding RTO requirements
- Demand-side management (e.g., Orders 719 and 745)
- Load aggregation, which is important where there is a retail market underlying a wholesale market
- Qualifying Facility requirements
- Operating in compliance with NERC and NAESB standards

COST/BENEFIT CONSIDERATIONS

- **Benefits**

- Optimized unit commitment provides substantial savings over the market area
- Consolidated Balancing Authority reduces generation dispatch costs
- Improves reliability by having bigger picture and more options to relieve transmission congestion
- Enables higher renewable penetration levels at a lower cost
- Regional Transmission Planning optimizes grid allowing lower cost generation to be delivered to a wider market

- **Costs**

- SPP uses a scheduling fee to recover administrative costs of the market and is charged on a per MWh basis
- Regional transmission planning includes cost sharing and a rate schedule is used to recover expansion costs

NEVADA AND SPP PARTNERSHIP

- **SPP Integrated Marketplace expanded to include Nevada**
 - SPP business model setup to accept expansion
 - Connection with SPP market could be accomplished through contractual arrangement
 - Leverage existing systems and market experience for low cost implementation
 - Market rules would allow for Nevada retail choice
 - Greater value with access to large diverse market
- **SPP develop stand alone Nevada Market**
 - More costly and time consuming to implement
 - Market rules would need to be defined but could be specific to Nevada needs
 - Could use existing market rules as starting point but review process 2-3 years to design and receive approvals
 - Limited access to generation resources



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