

***Southwest Power Pool –
Essential to Delivering Reliable
and Affordable Energy Now
and in the Future***

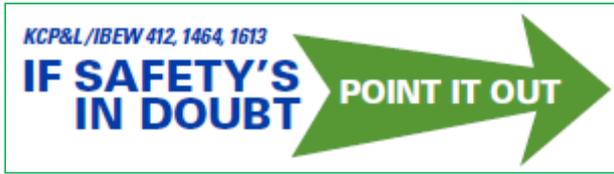
August 10, 2016



Highlights

- Safety Message
- The Big Picture
- Southwest Power Pool's Role
- The Challenge – Managing the Variables
- Reframing the Vision of Transmission
- Value of Transmission
- Who Pays for Transmission Projects?

Safety Message



KCP&L Safety Culture

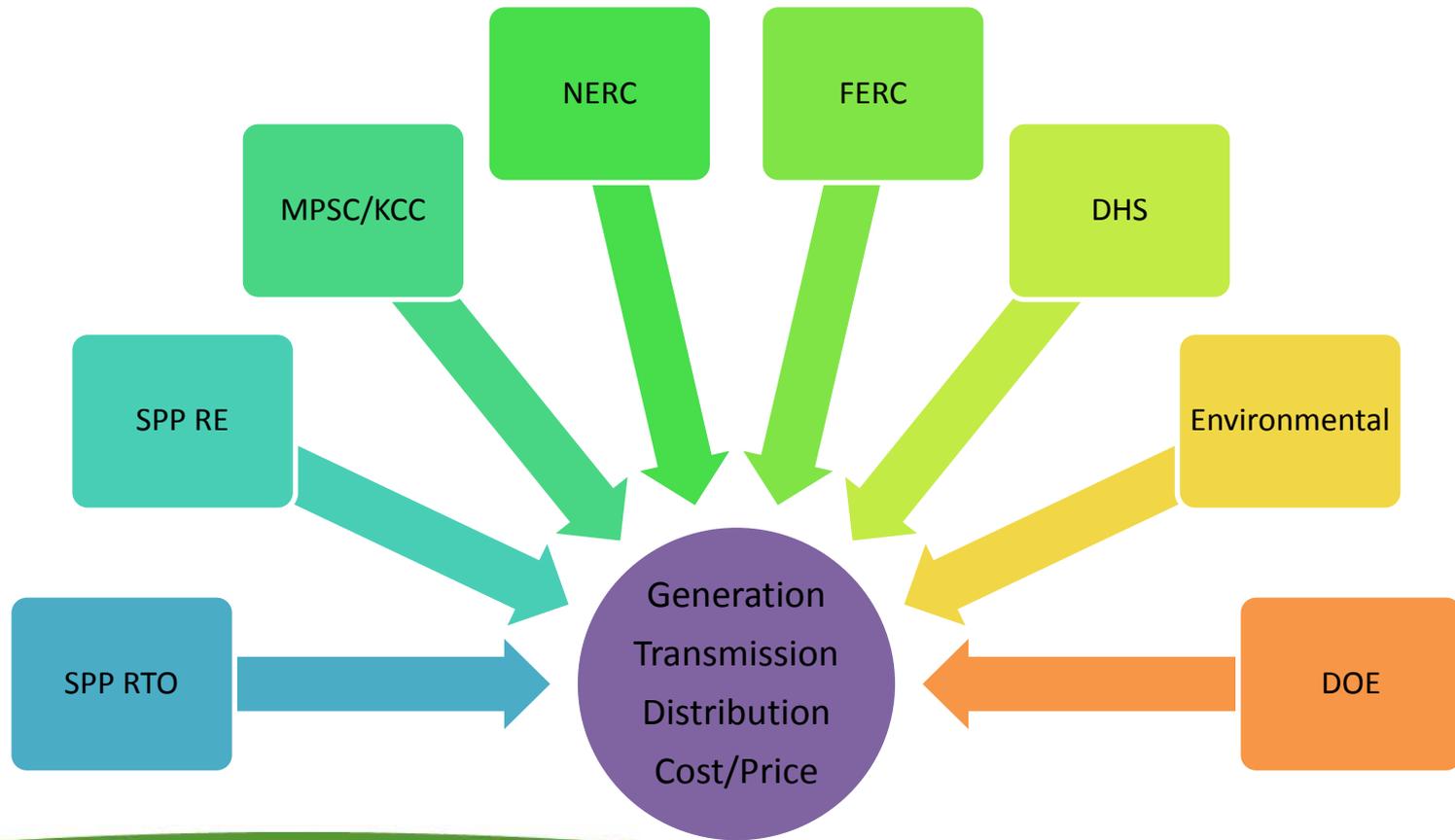
- Every Company meeting begins with a safety message
- The messages promote safety awareness in the workplace and home
- Customer safety education initiatives



A couple of entries from 2016 KCP&L Safety Calendar Contest

The Big Picture: The Regulators

A wide variety of regulations impact Availability, Mitigating Disruption, Cost and Price of Electric Service.



SPP's Increasingly Essential Role

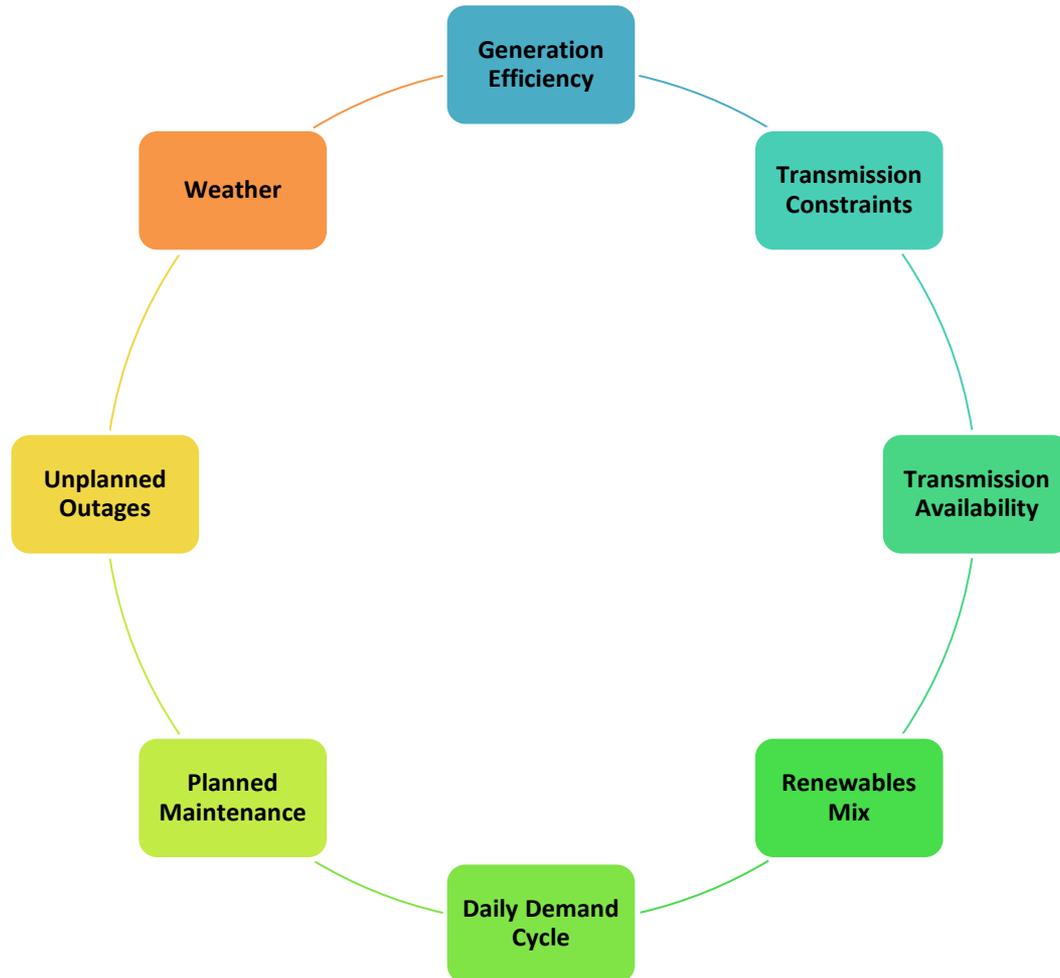
- 1968 Became NERC Regional Council
- 1980 Implemented telecommunications network
- 1991 Implemented operating reserve sharing
- 1994 Incorporated as nonprofit
- 1997 Implemented reliability coordination
- 1998 Implemented tariff administration
- 2004 Became FERC-approved Regional Transmission Organization
- 2007 Launched EIS market; became NERC Regional Entity
- 2009 Nebraska utilities joined SPP
- 2010 FERC approved Highway/Byway cost allocation methodology and Integrated Transmission Planning Process
- 2014 Launched Integrated Marketplace
- 2015 Integrated System joins SPP

Southwest Power Pool's Role

SPP's Mission: Helping our members work together to keep the lights on, today and in the future.

SPP Regional Transmission Operator (RTO)	SPP Regional Entity (RE)
Real-time Electric Power Grid Operation	NERC Delegated, FERC Approved Authority
Reliability Coordinator	Compliance Monitoring and Enforcement
Tariff Administration	NERC Registration and Certification
Regional Scheduling	Event Analysis / Reliability Assessments
Transmission Expansion Planning	Education and Outreach
Market Operations	
Training	

The Challenge – Managing the Variables



SPP Is Member-Driven



Member
Driven



Collaborate and Support



Advise – Informed Decisions



Approximately 70 Working Groups
and Committees



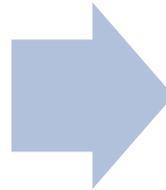
Approximately 30 KCP&L Employees
Participate and/or Monitor Working
Groups and Committees

Reframing the Vision of Transmission

In the past

Individual utilities planned and built transmission to meet their “local” reliability and generation needs

- Resulted in infrastructure additions to meet minimum reliability standards
- Did not facilitate the efficient utilization of existing generation region-wide
- Did not consider opportunities for the addition of competitive new generation



Today

Utilities collaborate, through participation in RTOs, to proactively plan and build transmission “highways” that benefit region as well as local service

- Facilitates new generation additions, including renewables
- Improves electric reliability, operational efficiencies, and access to lower-cost and diverse generation resources
- Enables more competitive wholesale energy markets

Value of Transmission: Benefits

- **Benefit Cost Ratio of 3.5:** From 2012 to 2014, SPP installed almost \$3.4B of transmission expansion projects, benefits of the projects expect to exceed \$16.6B. Benefits include:
 - **More Efficient Utilization of Generation:**
 - Reduces Transmission Congestion
 - Improves Access to Markets
 - Increases Competition
 - Increases System Efficiency
 - Defers Generation Capacity Investment
 - Access to Lower Cost Generation

Value of Transmission: Other Benefits

- **Enables Access To Renewables:** SPP's wind generation mix in 2007 was less than 1%, in 2015 wind represents 15%, and continues to grow.
- **Advances Public Policy:**
 - Improves reliability;
 - Serves new population centers; and
 - Manages diverse fuel types to meet environmental goals.
- **Stable and Reliable System:** Transmission investment expands operational flexibility in a variety of conditions.

Who Pays For Transmission Projects?

- **Sponsored:** Project owner builds and receives credit for use of transmission lines
- **Directly-assigned:** Project owner builds and is responsible for cost recovery and receives credit for use of transmission lines
- **Highway/Byway:** Most SPP projects paid for under this methodology

Voltage	Region Pays	Local Zone Pays
300 kV and above	100%	0%
Above 100 kV and below 300 kV	33%	67%
100 kV and below	0%	100%

Did We Get What We Paid For?

SPP Regional Cost Allocation Review

- **Regular Review of Transmission Project Cost Allocation:** This triennial analysis is to measure by zone the cost allocation impacts of SPP's Highway/Byway methodology.
- **Aligns Charges with Long Term Benefits:** A tool to confirm allocation of SPP participants' costs align with SPP's Highway/Byway methodology.
- **Benefit Cost Ratio:** Provides analysis of participants' benefit cost ratio based on a participants' operations and investment.
 - **KCP&L Zone's Benefit Cost Ratio: 2.97**
 - **GMO Zone's Benefit Cost Ratio: 2.15**

In Summary

- Many regulations play a part in promoting availability, mitigating disruption, cost and price of electricity.
- SPP provides efficiency in managing the variables and optimizing the energy markets.
- Transmission is valuable:
 - Enables access to renewable generation resources
 - Advances public policy
 - Assures a stable and reliable energy delivery system

