



**Southwest Power Pool, Inc.**

**BOARD OF DIRECTORS/MEMBERS COMMITTEE MEETING**

**June 11 – 12, 2007**

**SPP Office – Little Rock, AR**

**• A G E N D A •**

**Monday, June 11**

- 11:00 Travel to Maumelle Site/Tour
- 12:00 Lunch at Maumelle Site with SPP Staff
- 1:30 Travel to SPP Offices
- 2:00 Stakeholder Entities in the Industry
  - Cooperatives ..... David Brian, East Texas Cooperatives
  - IPPs/Marketers..... Rob Janssen, Redbud Energy
  - Municipals ..... Jeff Knottek, City Utilities of Springfield
  - Investor owned Utilities ..... Kelly Harrison, Westar Energy
  - Independent Transmission ..... Carl Huslig, ITC Great Plains
- 4:30 Compliance Program ..... Michael Desselle
- 5:30 Depart for Hotel
- 6:15 Depart Hotel for SPP Night at the Arkansas Travelers Baseball Game

**Tuesday, June 12**

- 8:00 Travel to SPP Offices – Breakfast
- 8:30 State of the Industry..... Nick Brown
  - Generation Sources
  - Transmission Expansion
  - Demand Response
- 10:30 Metrics ..... Michael Desselle/Larry Altenbaumer
- 11:30 Lunch with SPP Management
- 1:00 Balancing Authority ..... Lanny Nickell
- 2:30 Future Market Operations ..... Richard Dillon
- 5:00 Adjourn

*Relationship-Based • Member-Driven • Independence Through Diversity  
Evolutionary vs. Revolutionary • Reliability & Economics Inseparable*

## **SPP June 2007 Board of Directors Meeting Stakeholder Presentation Outline**

This is a general outline for the content of the various stakeholder presentations at the June 11-12 Board of Directors meeting. The stakeholder categories being presented are: Investor-owned Utilities; Municipals; Cooperatives; IPP/Marketers; and Independent transmission companies. The purpose is to provide the SPP Directors with a comparison of the various types of stakeholder entities in the SPP region and to simply educate them on the constituency of SPP. As much as possible, presentations should speak generally to the stakeholder category and its interaction with SPP and the industry rather than to a specific corporate entity.

- Overview/history of how an entity is structured and/or governed
- How is an entity regulated? (State, federal, Board, Membership)
- How is an entity capitalized? (budget process, typical expenses, sources of funding, i.e. stocks, bonds, RUS, loans)
- Tax status – franchise, state, federal, tax exempt; amount of taxes paid
- Where does the revenue go? (Taxes, fuel, purchased power, payroll, expenses)
- What do those from whom you secure capital look to you for? Strategy, earnings, rate treatment, etc.
- Who are an entity's customers? (wholesale, retail)
- Service territory, headquarters, large towns served, annual load growth
- Average cost to customers (particularly interested in rates to an average residential customer where applicable)
- What services are included? (generation, transmission, distribution)
- How many MWs of capacity is an average entity responsible for?
- Fuel mix
- Transmission information: owner, TDU
- What industry groups represent these entities? (EEI, EPRI, APPA, etc.)



# East Texas Cooperatives Stakeholder Presentation

SPP Board of Directors Meeting

David Brian, P.E.  
Vice President  
GDS Associates, Inc.

June 11, 2007



## SPP Participation

- East Texas Electric Cooperative (ETEC), Northeast Texas Electric Cooperative (NTEC), and Tex-La Electric Cooperative have been SPP members since 1999 and Network Service Customers of SPP since 1/1/2005
- Committee seats:
  - Members Committee
  - Regional Tariff Working Group ("RTWG")
  - Transmission Working Group ("TWG")
  - Market Working Group ("MWG")

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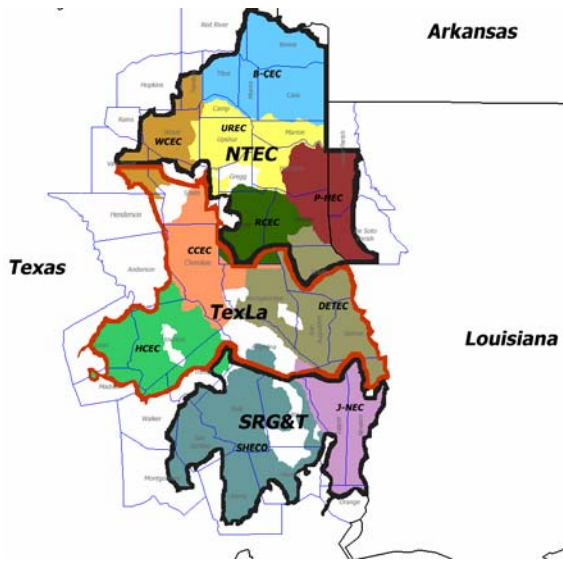
# East Texas Cooperatives

**Legend**

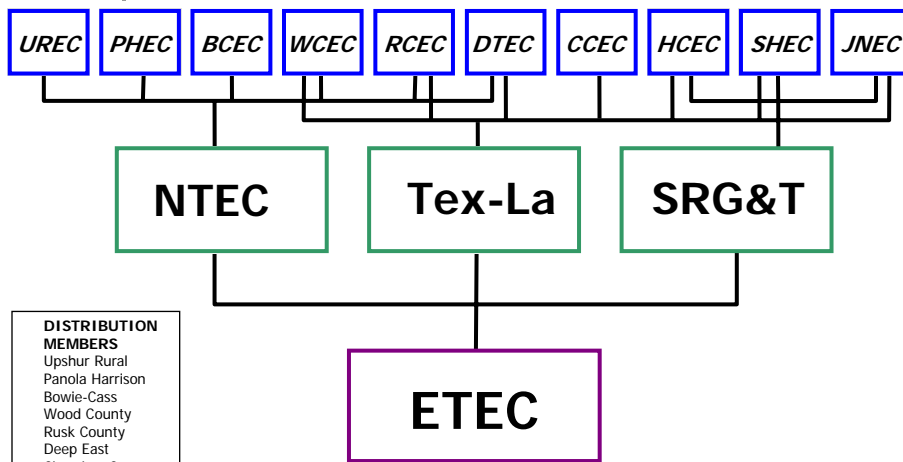
- Bowie Cass Electric Cooperative
- Cherokee County Electric Cooperative
- Deep East Texas Electric Cooperative
- Houston County Electric Cooperative
- Jasper Newton Electric Cooperative
- Panola Harrison Electric Cooperative
- Rusk County Electric Cooperative
- Sam Houston Electric Cooperative
- Upshur Rural Electric Cooperative
- Wood County Electric Cooperative

States, 1:3M  
Counties, 1:3M

0 20 40 60  
Scale: 1" = 39.0 miles



# Organizational Chart



- DISTRIBUTION MEMBERS**
- Upshur Rural
  - Panola Harrison
  - Bowie-Cass
  - Wood County
  - Rusk County
  - Deep East
  - Cherokee County
  - Houston County
  - Sam Houston
  - Jasper-Newton



## East Texas Cooperatives

- Cooperatives are non-profit, member-owned organizations; ratepayers are their owners
- Cooperatives' rates are not regulated by the PUCT
- Cooperatives rely primarily on the Rural Utilities Service ("RUS," formerly "REA") for financing needs
- Cooperatives are non-profit 501(c)(12) organizations exempt from income taxes
- Revenues recovered from members pay costs plus operating margins; Margins are ultimately returned to the members in the form of patronage capital retirements


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## East Texas Cooperatives (cont'd)

- Strengths of the G&T cooperatives from a lending security standpoint are the all-requirements contracts between the G&Ts and the member distribution systems
- RUS standard form mortgage includes covenants for margin levels and debt service coverage
- Cooperatives' customers are primarily retail, although there are some wholesale customers; most load is rural and residential
- Annual load growth is approximately 2.5%
- Cooperatives provide generation, transmission, and distribution services

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## East Texas Cooperatives (cont'd)

- East Texas Cooperatives serve approximately 315,000 retail customers, with total member requirements of 6,100,000 MWh annually and a combined peak load of 1,500 MW
  - Approximately 60% is in SPP
- SPP transmission information: Transmission dependent utility ("TDU"), but also hoping to be a Transmission Owner
- Represented nationally by the National Rural Electric Cooperative Association ("NRECA")

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## Rates to Residential Consumers 2006

<u>Cooperative</u>	<u>cents/kWh</u>
Upshur-Rural EC	8.11
Bowie-Cass EC	10.00
Panola-Harrison EC	8.19
Wood County EC	10.25
Deep East Texas EC	9.23
Rusk County EC	9.15

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## SPP Area Resources

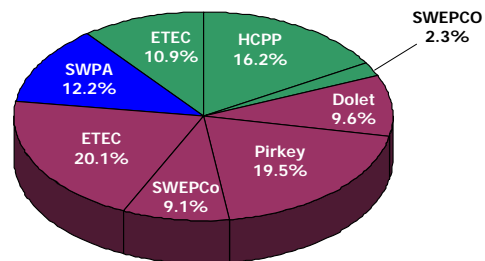
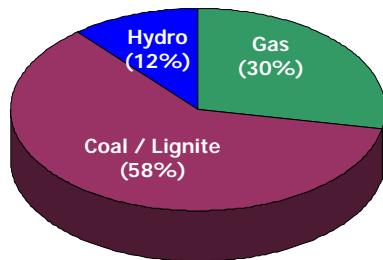
<u>Resource</u>	<u>Type</u>	<u>Fuel</u>	<u>MW</u>
Pirkey	Ownership	Lignite	79
Dolet Hills	Ownership	Lignite	38
Independence	Ownership	Coal	30
Harrison County	Ownership	Nat. Gas	165
SWPA	Purchase	Hydro	128
AEP/SWEPCO	Purchase	System	<u>400</u>
			850

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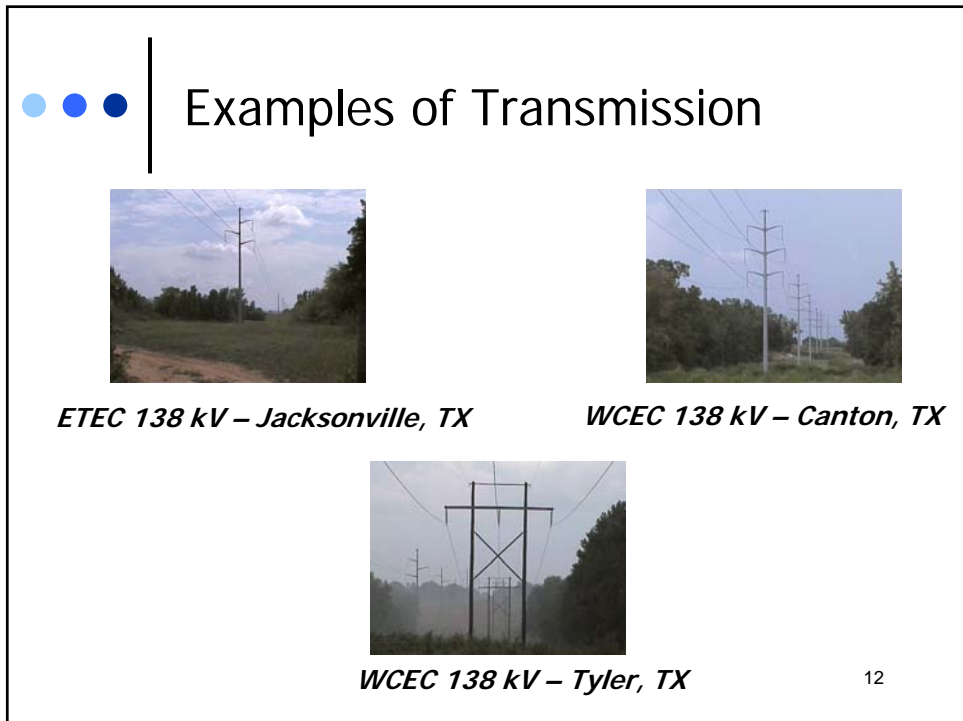
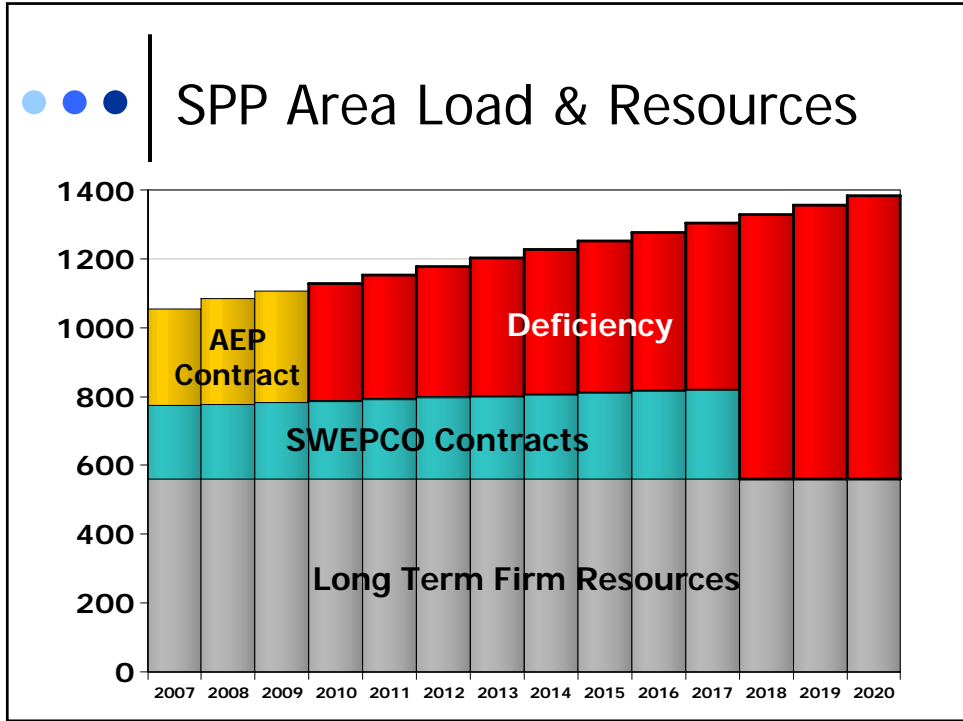


## NTEC's Fuel Diversity

(Based on kWh)



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## East Texas Cooperatives' Transmission Facilities

	<u>Miles of line</u>	<u>Gross Plant</u>	<u>Annual cost</u>
SPP	1,030	\$100M	\$8.9M
SERC	236	\$36M	\$4.3M
ERCOT	<u>13</u>	<u>\$3M</u>	<u>\$0.4M</u>
	1,280	\$139M	\$13.6M

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## SPP Area - Line Miles

	<u>Open Loops</u>	<u>Closed Loops</u>	<u>Pure Radials</u>	<u>Total</u>
ETEC	51.9	84.9	19.3	156.1
BCEC	105.3	0.0	91.0	196.3
UREC	127.3	0.0	147.2	274.5
DETEC	148.5	0.0	32.3	180.8
WCEC	77.6	0.0	20.2	97.8
PHEC	0.0	0.0	72.9	72.9
TEX-LA	43.0	0.0	0.0	43.0
RCEC	0.0	0.0	9.0	9.0
TOTALS	553.6	84.9	391.9	1,030.4

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## Hot Button SPP Issues

1. Competitive Market for Wholesale Power
2. Comparable Treatment for Transmission Facilities
  - Existing
  - New
3. Procedures for Adding New Points of Delivery

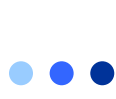
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## 1. SPP Market Issues

- East Texas Cooperatives are shielded from the effects of the EIS market through 2009 under AEP/SWEPCO contracts
- The Cooperatives support the EIS market and have participated in the development of the EIS market through participation on the MWG
- Load following power is a unique and important product, and the EIS market creates more competition in that product area

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## 2. Comparable Treatment for Transmission

### *Existing Facilities*

- Cooperatives participated in a two year SPP stakeholder process to develop an SPP definition of transmission
- SPP Board approved that definition, and it was approved by FERC in 2006
- Cooperatives and SPP filed at FERC in December 2006 to include as tariff facilities approximately 180 miles of cooperative transmission facilities that meet the definition

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## 2. Comparable Treatment for Transmission

### *Existing Facilities (cont'd)*

- AEP protested, arguing that the Cooperatives' facilities do not qualify under the definition and are not eligible for inclusion in the AEP zonal rates
- Case is currently in settlement at FERC, may go to hearing

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## 2. Comparable Treatment for Transmission

### *New Facilities*

- Cooperatives commonly build 138 kV and 69 kV local reliability upgrades
- SPP tariff is currently being modified to define treatment
- SPP Board had ordered all radials going forward would be in, however FERC found the language confusing
- Cooperatives hope to receive fair treatment for all transmission going forward

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## 3. Point of Delivery Issues

- Load growth creates the need for new delivery points from the local transmission owner, in our case AEP SWEPCO
- SPP Tariff has historically not dealt with how requests would be studied and how costs would be allocated
- SPP Delivery Point Addition Task Force is underway
- Currently in a dispute with AEP over immediate delivery point needs

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## IPPs / Marketers Sector

June 11-12, 2007  
SPP Board of Directors  
Educational Meeting

Rob Janssen / Jesse Gardner -  
Redbud Energy / Kelson Energy

## SPP IPP/Marketer Members

- IPPs

- Calpine Energy Services
- Redbud Energy (Kelson Energy)
- Tenaska Power Services

- Marketers

- Aquila Power
- Cargill
- Constellation
- Coral
- Duke Energy
- Dynegy
- Edison Mission
- El Paso
- NRG
- TXU
- Williams

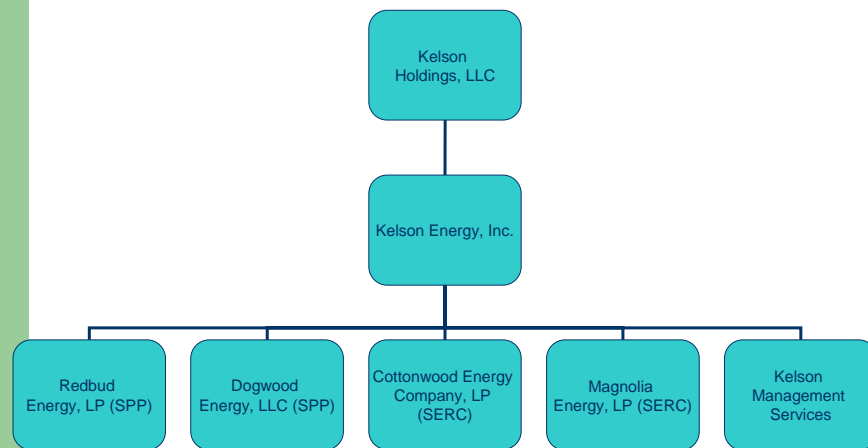
## Capacity Under Control

- IPPs
  - 5,000 to 7,500 MW in SPP footprint
  - 1,800 MW by Kelson Energy (Redbud Energy and Dogwood Energy)
- Marketers
  - IPP and Utility Excess Capacity

## Structure, Governance and Capitalization

- Corporate vs. Project Structure
- Public, Private or Partnership Form of Ownership and Governance
- Forms of Capital Structure and Implications

## Kelson Corporate Structure (Simplified)



## Financial

- Market Demands
  - Cash Flow (Amount and Certainty)
  - Earnings (Public Companies)
- Uses of Cash
  - Operating Expenses
  - Overhead
  - Debt Service
  - Equity Investors

## Services Provided / Customers

- Services Provided
  - Generation and associated services
- Customers
  - Regional wholesale market
  - LSEs: IOUs, Municipals, Coops
  - Marketers

## Regulation and Tax Status

- Regulation
  - FERC
  - NERC
  - State environmental agencies
  - Impacted by state utility regulatory commissions
- Tax Status
  - Federal and state taxes (C-Corp)



## Fuel Mix, Average Cost, and Transmission

- Fuel Mix
  - Natural Gas, Renewables, Coal
  - Merchant vs. Non-merchant
- Average Cost
  - Gas index \* Heat Rate
- Transmission
  - Customer

## Industry Groups

- IPPs
  - National: EPSA
  - Regional: IPPNY, GCPA (examples)
- Marketers
  - National: NEMA, PMA

# Municipal Electric Systems

Presentation to the SPP Board of Directors

June 11, 2007



Jeff Knottek  
City Utilities of Springfield, MO

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## Municipal Government Structure

- Individual state constitutions allow city charters to adopt “home rule” where citizens decide form of government
  
- Three basic forms in U.S.
  - 1) Council – Manager
  - 2) Mayor – Council
  - 3) Commission

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## Municipal Government Structure

### 1) Council – Manager

- City Council
  - Elected governing body (5 – 9 members)
  - Mayor as council president
  - Sets policy, taxes & approves budgets
- City Manager
  - Hired by council to carry out policies
  - Serves as chief advisor, responsible for preparing budgets, directing day-to-day operations

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## Municipal Government Structure

### 2) Mayor – Council

- Mayor
  - Elected chief executive officer
  - Head of police force & budgetary officer
  - Powers vary for veto, staff hiring/removal, & day-to-day operations
- City Council
  - Elected from wards of city
  - Serves as legislative body

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## Municipal Government Structure

### 3) Commission

- Typically 5-7 members with each in charge of a specific aspect of municipal affairs, e.g. public works, finance
- Serves as legislative body responsible for taxation, appropriations, ordinances, & general functions

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## Utility Governance and Regulation

- May be controlled directly by City Council/Commission **or** may be governed by a Public Utility Board which reports to a City Council or Commission
  - For example, City Utilities of Springfield, MO is operated by a Board of Public Utilities which reports to a Council – Manager form of local government
- Per APPA, most municipals are governed by a City Council
  - Majority of remaining utilities are governed by independent Utility Boards
- Typically not under PSC jurisdiction
  - PSC regulates natural gas pipeline safety issues in Missouri
- Typically not under FERC jurisdiction
  - Limited exceptions include NERC (reliability standards)

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## Financial Operations

- Normally operate as a separate financial enterprise with primary objective to supply low-cost, reliable power to customers
- Utility budgets prepared annually and approved by City Council or other governing entity
- Rates established by utility/Board and approved by City Council or other governing entity
- Subject to close scrutiny in public forums and internal/external audits
- Typically follow FERC accounting procedures
- Provide monthly financial statements

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## Sources of Capital

- Issue Bonds
  - Secured by revenue and/or general obligations
  - Federal and state tax-exempt
  - Requires voter approval
  - e.g. coal-fired generation project
- Lease financing
  - e.g. gas-fired generation project; trunked radio system
- Equity funding
  - e.g. transmission and substation facilities

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## Securing Capital

- **Financial and operating ratios are important factors to evaluate financial health and historical performance.**
- **Credit rating agencies such as Fitch Ratings recognize key factors that allow public power entities to maintain stable credit ratings in the upper tier of electric industry (typically “A” to “A+” categories)**
  - Ability and willingness to raise rates (without state commission oversight) when necessary
  - Passing along changes in fuel prices in a timely manner
  - Reasonable financial and liquidity ratios
  - Local governance (viewed favorably)
- **Other factors include:**
  - Cash reserves
  - Local area economy
  - Cost of power/generation
  - Competitive rates
  - Customer growth
  - Management capability/experience

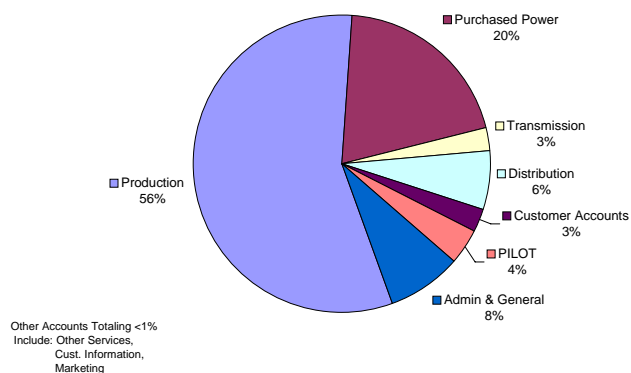
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## Tax Status

- **Operating revenue exempt from federal & state taxes**
- **Typically do not pay franchise fees or local property taxes**
- **Provide direct benefit to their communities through payments and contributions to local and state governments.**
  - Majority make payments in lieu of taxes (PILOT) or transfers to the general fund
    - Typically 4 – 6% of gross electric operating revenues
  - Contributions are made in the form of free or reduced-cost services
  - Some collect gross receipts taxes for local government

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## Typical Expense Distribution



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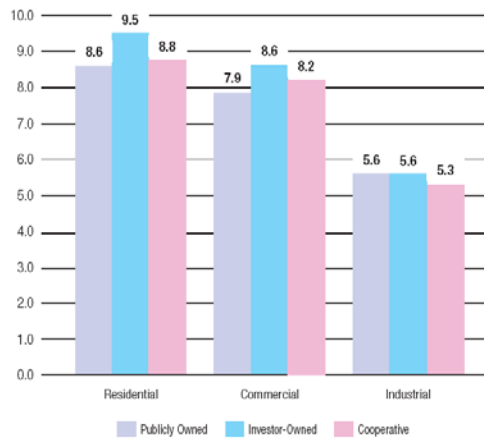
## Customer Base & Service Territory

- Typically includes residential, commercial, and industrial customers
  - Similar to investor-owned utilities as opposed to cooperatives
- Retail, rather than wholesale, customers typically comprise the largest segment of the customer base
- 2-4% typical load growth
- Majority of customers are located within municipal boundaries
- Service territory generally includes corporate city limits and portions of the county

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## Electric Rate Comparison

### 2005 Average Retail Rates (Cents/kWh)



American Public Power Association • 2007-08 Annual Directory & Statistical Report

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## SPP Municipal Members

- Board of Public Utilities (Kansas City, KS)
- City of Clarksdale, Mississippi
- City of Lafayette, LA
- City Power & Light (Independence, MO)
- City Utilities of Springfield, MO
- Oklahoma Municipal Power Authority
- Public Service Comm. of Yazoo City, MS

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## SPP Municipal Member Data (Based on APPA 2005 statistics)

Company	Total Customers	Electric Employees	Generation Capacity (MW)				Retail Sales (MWh)
			Oil	Coal	Gas	Hydro	
BPU of Kansas City, KS	64,456	466	131.4	500.1	183.6		2,389,708
City of Clarksdale, MS	7,266	37			374.6		180,943
City of Lafayette, LA	58,048	204		279	379.6		1,869,070
CP&L of Independence, MO	56,162	220	74	161	104		1,093,141
CU of Springfield, MO	101,895	288	15.3	447	424.3		3,056,222
Oklahoma Muni. Pwr. Authority <sup>1</sup>		46		101.3	247.2	25.6	2,910,045 <sup>1</sup>
Pub. Serv. Comm. of Yazoo City, MS	5,324	31			34.1		100,752

Note 1: OMPA data refers to wholesale transactions

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## NERC Functions of SPP Municipals

SPP Member	NERC Registered Functions									
	BA	DP	GO	GOP	LSE	PSE	RP	TO	TOP	TP
BPU of Kansas City, KS	X	X	X	X	X	X	X	X	X	X
City of Clarksdale, MS		X	X	X	X					
City of Lafayette, LA	X	X	X	X	X	X		X	X	X
CP&L of Independence, MO	X	X	X	X	X	X	X	X	X	X
CU of Springfield, MO		X	X	X	X		X	X	X	X
Oklahoma Muni. Pwr. Authority			X	X		X	X			X
Pub. Serv. Comm. of Yazoo City, MS		X	X		X					

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## Industry Group Representation

- American Public Power Association (APPA) provides significant formal representation
  - (all 7 SPP municipals are members)
- Transmission Access Policy Study Group (TAPS) is an informal association of TDUs in 33 states
- Various municipal state associations/alliances also play a part, e.g. Missouri Public Utility Alliance (MPUA)

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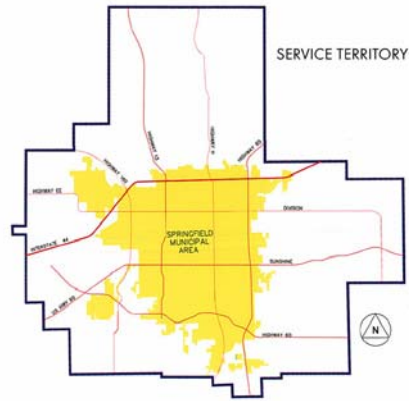
## Public Power Attributes

- Locally controlled
- Large portion of revenues stay in community
- No Stockholders; Customers are Owners
- Low electricity rates
- Quick response from local crews to meet Customer needs
- Access to tax-exempt financing for capital projects
- Reliable service providers

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# City Utilities of Springfield, MO

- Service Area
  - Population 222,000
  - Size (in square miles) 320
- Electric System
  - Customers 104,853
  - Hourly Peak demand 763 MW
  - MWh Annual Growth 2.1%
- Natural Gas
  - Customers 81,610
  - 2006 System Sales 10,434,889 Dth
- Water
  - Customers 78,943
  - 2005 System Sales 10,015,838 (1000 Gal)
- Transit
  - 2005 Riders 1,708,824
  - Miles of Route 175
- Telecommunications (Springnet)
  - High Level/Commercial Broadband Supplier
  - Secure Server/Remote Site Backup Service



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# Questions and Comments

Jeff Knottek  
 City Utilities of Springfield, MO  
[jeff.knottek@cityutilities.net](mailto:jeff.knottek@cityutilities.net)



# Investor Owned Utilities

Kelly Harrison  
Westar Energy  
VP – Transmission Ops & Environmental Svcs

Southwest Power Pool  
Board of Directors Meeting  
June 11, 2007

## SPP's IOUs





## Governance

- Board of Directors elected by shareholders
- Chief executive officer serves at the board's discretion
- Board sets strategic direction for the company

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## Regulation

- Federal
  - Federal Energy Regulatory Commission
  - Nuclear Regulatory Commission
  - Securities and Exchange Commission
  - New York Stock Exchange
  - Environmental Protection Agency

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# Regulation

- State
  - Kansas Corporation Commission
  - Louisiana Public Service Commission
  - Arkansas Public Service Commission
  - Public Utility Commission of Texas
  - Missouri Public Service Commission
  - New Mexico Public Regulation Commission
  - Corporation Commission of Oklahoma
  - State environmental departments

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# Methods of Cost Recovery for Westar

<b>Revenue Requirement</b>	<b>Method of Recovery</b>
1. Fuel, purchased power and environmental consumables	Monthly adjustment based on month ahead forecasted cost, with annual true-up to actual costs
2. Environmental capital	Environmental Cost Recovery Rider adjusts annually
3. Transmission rate recovery	FERC formula rate adjusts annually; plan to seek implementation of TDC for a corresponding retail adjustment
4. General capital investments	Traditional rate case, but improved through predetermination and CWIP statutes
5. Property taxes	Annual adjustment to reflect current property taxes
6. Extraordinary storm damages	Traditionally deferred accounting treatment

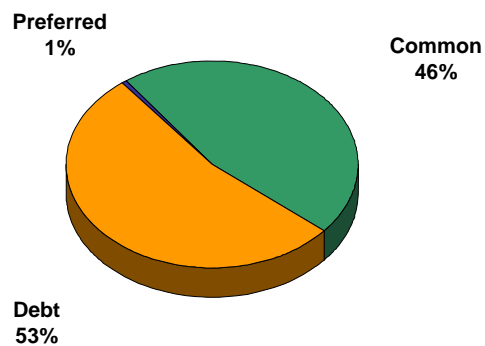
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## Cap Structure

- Debt
- Equity
  - Common shares
  - Preferred shares
- Debt to equity balance

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## Westar's Capitalization



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## Tax status

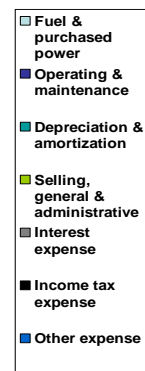
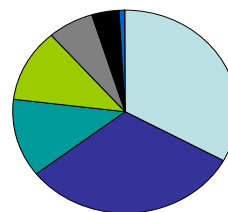
- Federal and state income taxes
- Property taxes
- Franchise fees – collect from customers and transfer to county or city

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## Expenses

- **Operations and maintenance**
  - Fuel and purchased power
  - Salaries and wages
  - Benefits
- **Depreciation**
- **Taxes**
  - Property
  - Employee related
  - Income
- **Interest**
- **Dividends**

Westar Energy  
Expenses, 2006



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## Looking forward

- Investment in new generation
- Widespread interest in renewable energy sources
- Additional transmission needed
- Evolving energy policy
  - Need decisions based on science, economics
- Availability of skilled labor

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## Investor considerations

- **Regulatory environment**
  - Statutory framework for recovery
  - History of regulatory body
- **Growth strategy**
  - Capital investment
  - Increased sales
- **Cash flow compared to capital expenditures**
- **Interest coverage ratio**
- **Debt/equity ratio**
- **Sustainable dividend growth**

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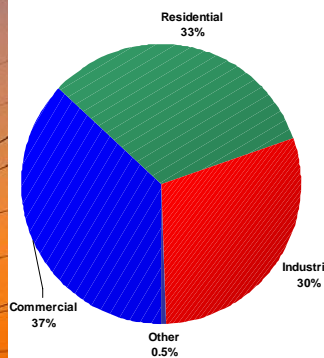
# Customer mix

- Retail
  - Residential
  - Commercial
  - Industrial
- Wholesale
  - Municipals
  - Rural Electric Cooperatives
- Wholesale power markets

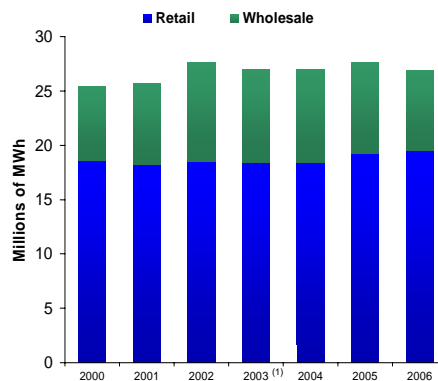
# Westar's Customer Mix

## Retail Sales by Class

12 months ended December 31, 2006

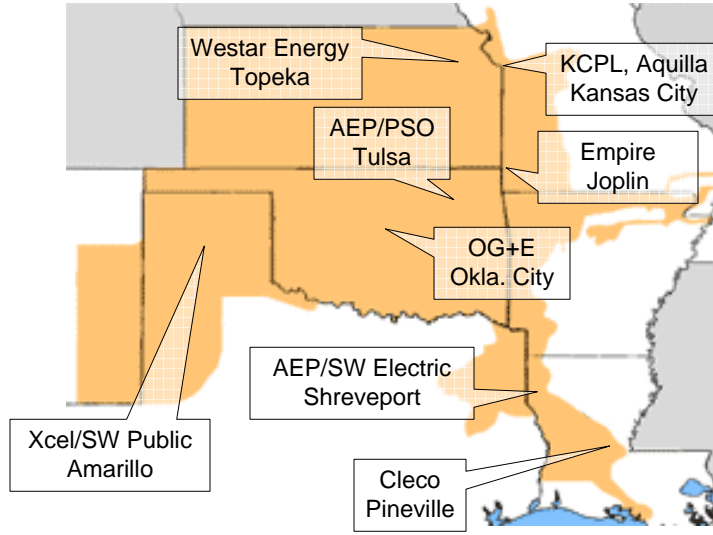


## MWh by Year



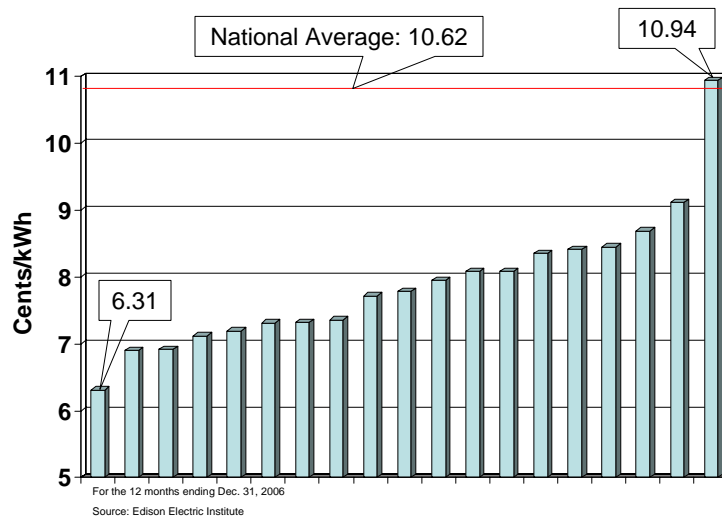
(1) Reflects sale in August 2003 of 10,000 rural retail accounts.

# SPP IOUs



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# Residential Rates



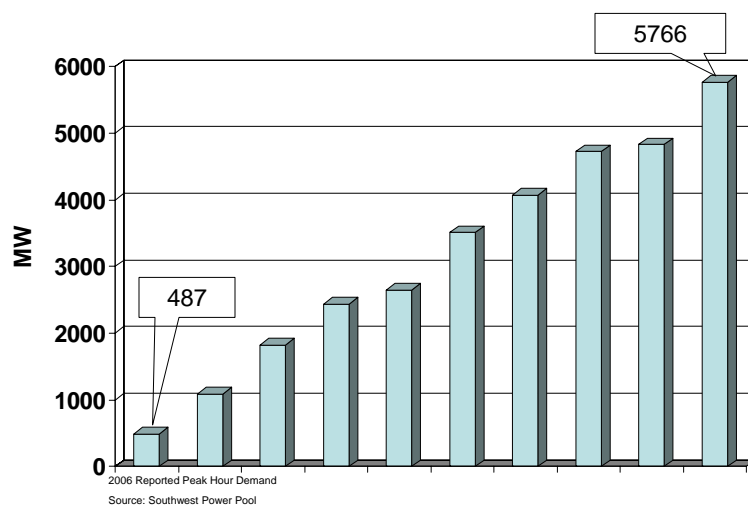
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## Services provided

- Fully integrated utilities
- Electric generation
- Transmission
- Distribution
- Customer Care
  - Billing
  - Call center
  - Online services
  - Energy efficiency/Demand management

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## Peak Demand



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# Fuel mix

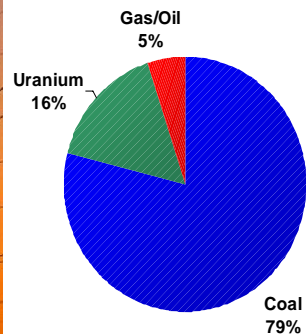
- Coal
- Nuclear
- Natural gas
- Renewable energy
  - Wind
  - Hydro
  - Biomass

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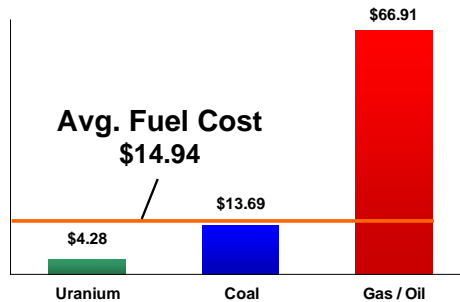
# Westar's Fuel Mix and Cost

Twelve months ended December 31, 2006

Sources of Energy



Fuel Cost by Source  
\$/MWh (a)



(a) Average fuel cost by source

20



## Transmission owners

- American Electric Power/PSO
- Aquila
- Cleco
- Empire District Electric Co.
- OG+E Electric Services
- Westar Energy
- Xcel/Southwestern Public Service Company

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## Industry trade organizations

- Edison Electric Institute
- EPRI
- Utility Air Resource Group

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## Independent Transmission Companies Transmission Partners for the SPP Region

### What is an Independent Transmission Company?

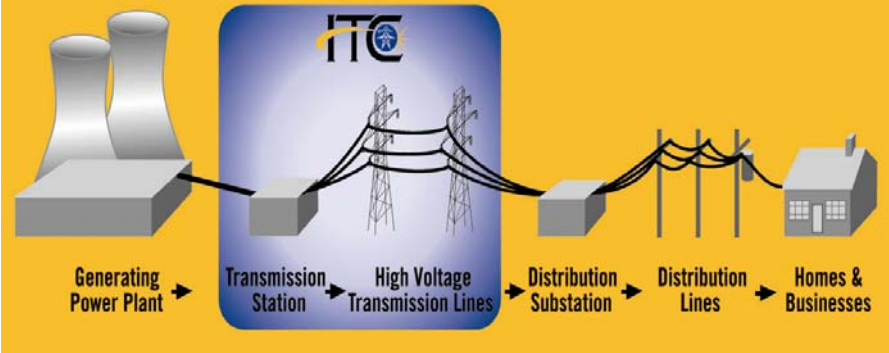


- Transmission is our singular focus
  - Intent on investing, constructing, and maintaining the robust transmission system.
  - Explicit objectives of enhancing reliability, reducing congestion
  - Facilitates regional economic growth plans
  - Supports development of renewable energy resources market
  - Emphasis on operational excellence
- An Independent Transmission Company ("Transco") is not linked to any other market participant, generation or end-use distribution company
- Transmission customers consist of any party that connects to the transmission grid and includes local utilities, Municipals/coops, industrial customers, generating companies, etc.



## Function of Transcos

Transcos Serve as the Conduit Between Generation and End-Use Customers



3



## Historical Background

➤ Transcos arose primarily from three factors:

1. De-regulation of electricity markets
  - Gave rise to public policy requiring varying degrees of separation between generation and transmission functions
  - Varying degrees from wholesale only to full retail access
  - Some requirements for full financial separation of generation and transmission (all FERC jurisdictional utilities required to erect communication "wall" of separation)
2. Declining investment in transmission – DOE figures show that investor owned utility investment in transmission declined \$12.8bn from the 10-year period 1975-1984 to the 10-year period 1992-2001<sup>1</sup> while annual electricity demand has doubled from 1975 to 2001<sup>2</sup>.
3. FERC policies aimed at attracting capital to transmission sector. Energy Policy Act of 2005 recognition of lack of transmission investment directed FERC to implement policies aimed at attracting capital to transmission sector in an attempt to increase system reliability
  - Increase access to lower cost energy
  - Supportive of premium ROEs to encourage investment in transmission

[1] According to Edison Electric Institute ("EEI"). Figures are quoted in 2003 dollars.

[2] According to Department of Energy ("DOE"), annual electricity consumption more than doubled from 1975 to 2001.

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## Additional Factors



- Need to modernize grid
  - Antiquated 1970's (and earlier) equipment
  - System congestion
  - Blackouts
  - Cost of August 2003 blackout \$4-10Bn
  - Related lost production costs of U.S. businesses: \$46 Bn in power outages and \$6.7 Bn in power quality issues<sup>1</sup>
  - U.S. grid requires \$50-\$100 Bn of investment<sup>2</sup>
  - Lack some of the benefits modern technology can bring to the grid
- Wider markets forcing the transmission grid to be utilized in ways not originally envisioned by designers
- Many vertically-integrated utilities are investing in generation facilities – available capital and manpower for transmission expansion can be limited

[1] According to Electric Power Research Institute ("EPRI").

[2] According to a September 2004 DOE study regarding cost of power interruptions to U.S. electricity customers.



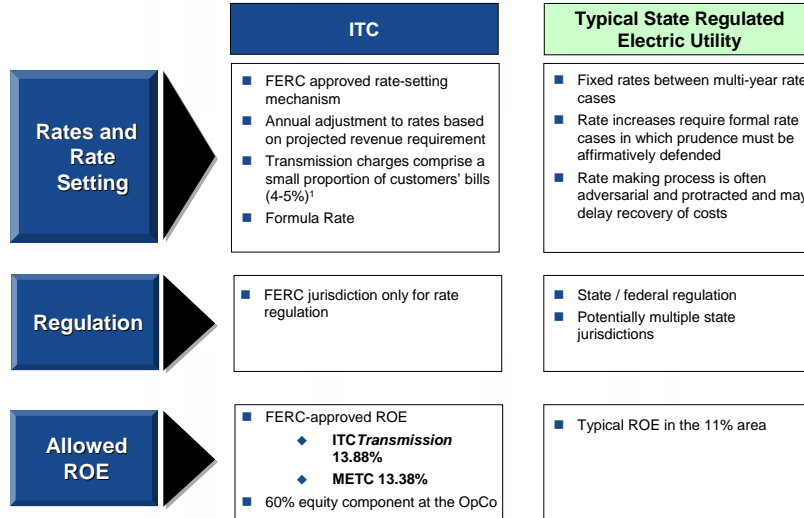
## Regulation



- Transcos are FERC regulated regarding rates, terms, and conditions of service – no state retail rate regulation
  - Transcos have the benefit of dealing with a singular focus, investing in and operating the transmission grid. This provides transparency in the development of an unbundled rate.
  - Use of a FERC-approved projected formula rate further streamlines cost recovery
- State oversight can become relevant for:
  - Siting of facilities – depending on the state's siting requirements
  - Requirement for certification – depending on the state's utility operation statutes



## FERC Regulatory Structure



[1] Source: 2005 EEl Annual Energy Outlook

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## Business Model

- Independence from generation and distribution with singular focus on transmission
- Prudent capital investment in the transmission grid
- FERC jurisdiction for rate regulation
- Opportunity to build rate base and earnings while improving grid reliability and lowering delivered energy costs

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## Financial Model



- FERC approved rate-setting mechanism
  - Annual adjustment to rates based on projected revenue requirement
- FERC approved ROE
  - Factors in risks to Transcos related to singular focus on transmission versus risks to vertically integrated utility which have other operations of the business over which to spread risk
  - Transcos typically receive a 100 basis point ROE adder recognizing their independent nature
  - Recognizes independence from market participants and willingness to invest in projects that eliminate or reduce congestion
  - Recognizes Transcos typically invest at multiples of their free cash
- FERC approved capital structure
- Recognition of value created by concentrating capital in area of singular focus, investment in transmission investor expectations
- Attractive to capital investors – alignment of risk profile with risk of investment
  - Transmission is generally considered the lowest risk component of the electric power sector
  - We provide an integral service with minimal commodity or energy demand risk

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## Transco Models



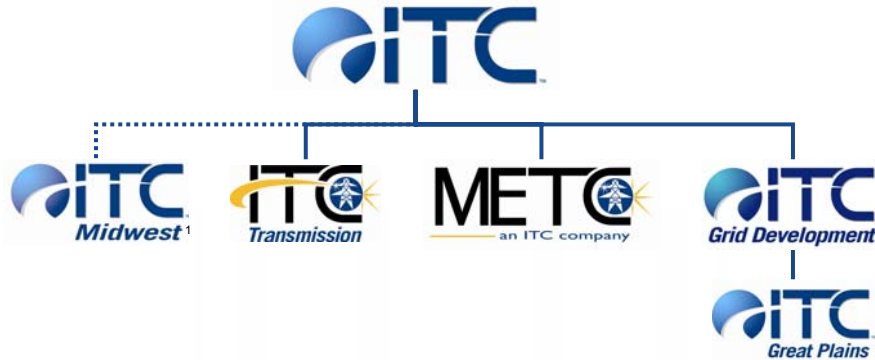
- Trans-Elect and National Grid (note that National Grid owns some distribution facilities in New England)
  - Held by and governed by private equity investors
- ATC
  - Held by and governed by stakeholders (market participants)
- ITC
  - Publicly held and governed by an independent Board

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## ITC Model

- ITC Holdings and its subsidiaries are in the business of investing in electricity transmission infrastructure improvements as a means to improve electric reliability, reduce congestion and lower the overall cost of delivered energy



[1] Assumes closing of the acquisition of IP&L's transmission assets

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## Transcos in SPP

- Presently there are two Transcos in the SPP footprint
  - ITC Great Plains
  - Trans-Elect
- Transco benefits
  - Independence from market participants
    - ◆ Decisions independent of non-transmission concerns
    - ◆ Able to take a broader, regional perspective
    - ◆ No internal competition for capital - dedicated entirely to prudent transmission investment
  - Access to capital
  - Rate regulation by one entity – FERC
- Transco challenges
  - Tariff and membership agreement favor investment by incumbent utilities
    - ◆ Letters of Authorization go to incumbents
    - ◆ Transcos must seek partnerships with incumbents to construct projects
  - Lack of economic cost recovery mechanism
    - ◆ Present system favors entities with load and/or generation

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## Contact Information



QUESTIONS?

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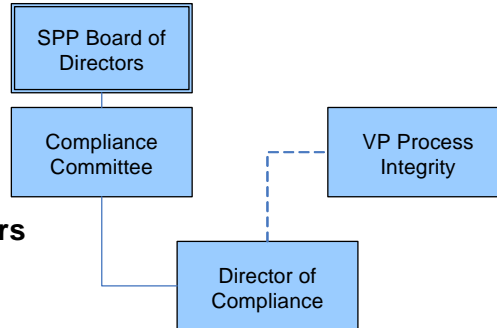
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SPP Compliance

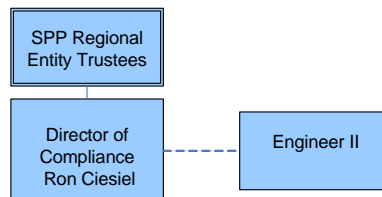
## Compliance Yesterday

- **Monitoring / Reporting**
- **Auditing**
- **Registration**
- **SME Assistance to Members**
- **MOPC**
- **NERC CCC**



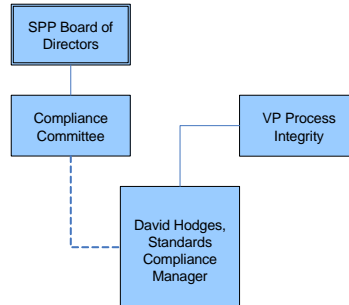
## Compliance Today

- **Registration**
- **Audit**
- **Enforcement**
- **Settlement**
- **Hearings**
- **Public Education**
- **MOPC**



## Compliance Today

- **Ensure SPP RTO and Contract Services compliance**
- **Training**
- **Participate in national forums**
- **SME Assistance to members**
  - In conjunction with Center of Excellence
    1. **Software**
    2. **Documentation**
    3. **Best Practices**
- **Compliance Process**
- **MOPC**
- **NERC CCC**



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## Order No. 693 – Background

- **April 4, 2006 - ERO submitted Reliability Standards (modified 8/28)**
- **October 20, 2006 – FERC issued NOPR in RM06-16 requesting comments on proposed Reliability Standards**
- **December 1, 2006 - “NERC’s Reliability Standards Development Plan: 2007 — 2009” (Work Plan) informational filing**
- **March 16, 2007 – Order No. 693 Issued**
- **Effective date – 60 days after publication in FR**

## Order No. 693 – General Summary

- **Approved 83 of 107 Reliability Standards**
  1. 27 approved outright
  2. 56 require significant improvements
  3. 24 are pending requiring additional information (“fill-in-the blanks”)
- **Approved 6 of 8 regional differences, including:**
  1. MISO/SPP Financial Inadvertent Settlement (approved)
  2. MISO/SPP Scheduling Agent (approved)
  3. PJM/MISO/SPP Enhanced Congestion Management (pending)
- **Approved glossary of terms used in Reliability Standards**
- **Adopted rule changes**

## Order No. 693 – Actions taken

- **FERC took one of four actions on each Reliability Standard: (1) approve (a); (2) approve as mandatory and enforceable and directed modification (a/dm); (3) requested additional information (pending); or (4) remanded (r).**
  1. **NERC must file a revised work plan within 90 days to reflect modification directives, address Order No. 890 directives and account for stakeholder comments.**
  2. **Fill-in-the-blank standards remain voluntary, a matter of good utility practice pending additional information from NERC.**

## Order No. 693 – FERC actions at a glance

BAL: Resource and Demand Balancing(6)	-	1(a), 5(a/dm)
CIP: Critical Infrastructure Protection(1)	-	1(a/dm)
COM: Communications(2)	-	2(a/dm)
EOP: Emergency Preparedness and Operations(9)	-	1(a), 7(a/dm), 1(p)
FAC: Facilities Design, Connections, Maintenance, and Transfer Capabilities(7)	-	2(a), 4(a/dm), 1(p)
INT: Interchange Scheduling and Coordination(9)	-	7(a), 2(a/dm)
IRO: Interconnection Reliability Operations and Coordination(9)	-	3(a), 6(a/dm)
MOD: Modeling, Data, and Analysis(23)	-	1(a), 9(a/dm), 13(p)*
PER: Personnel Performance, Training and Qualifications(4)	-	1(a), 3(a/dm)
PRC: Protection and Control(21)	-	8(a), 6(a/dm), 7(p)
TOP: Transmission Operations(8)	-	2(a), 6(a/dm)
TPL: Transmission Planning(6)	-	4(a/dm), 2(p)
VAR: Voltage and Reactive Control(2)	-	1(a), 1(a/dm)

\*includes several pending, direct modification

## Order No. 693 – Rule Modifications

- **Each Reliability Standard must identify to whom it applies.**
- **Reliability Standards shall not become effective until approved by the Commission.**
- **ERO must post each effective Reliability Standard to its web site.**

## Order No. 693 - Applicability

- **Initially, Reliability Standards apply to bulk electric system as in NERC's proposed definition rather than FPA Bulk-Power System.**
  - 90 day informational filing with complete set of regional definitions
  - ERO or Regional Entity may include additional facilities that are needed for Bulk-Power System reliability.
- **ERO compliance registry process will determine the entities responsible for complying with Reliability Standards.**
  - No "blanket waiver" for small entities
- **ERO directed to file procedure whereby a joint action agency, etc. may accept compliance responsibility for its members.**
- **ERO must assure that there are no "gaps" or "redundancies" in responsibilities between ISOs, RTOs or pools and their members.**
- **RROs are not responsible entities.**
  - Regional Entities are the compliance monitors.
  - As an interim measure, data will be provided to RROs.

## Order No. 693 - Enforcement

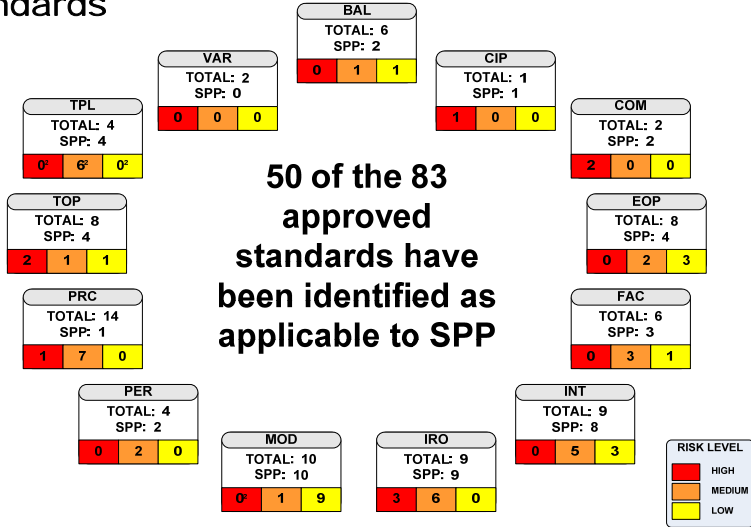
- **Approved Reliability Standards become effective on the later of the Effective Date of the Final Rule or the proposed NERC effective date.**
- **ERO and Regional Entities shall focus their efforts on the most serious violations until the end of the year.**
- **ERO and Regional Entities have discretion to calculate but not collect penalties.**

## Order No. 693 - SPP Compliance Project

### **SPP is currently leading an aggressive compliance project to:**

- **Identify applicable standards, SPP business owners, and violation risk factors *[Complete]***
- **Communicate applicable standard requirements and measures to business owners**
- **Develop plan to audit compliance with applicable standards**
- **Develop plan for continued compliance monitoring**
- **Audit Functional Areas**

## Order No. 693 – Enforceable Reliability Standards





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Base Plan Upgrades

**Project Tracking Report**

## Base Plan Project Status

### Complete

Project owner has verified that the project is complete and in-service.

### On Schedule

Project owner correspondence agrees with STEP reliability need date.

### Mitigation Provided

Upgrade will not be in-service by SPP reliability need date, but project owner has provided adequate mitigation for the violation in the interim.

### Delayed

Upgrade will not be in-service by SPP reliability need date, but project owner has not provided adequate mitigation for the violation in the interim.

## 2006-2008 Base Plan Projects Overview

### COMPLETE

- 25 Projects
- \$31.7M

### ON SCHEDULE

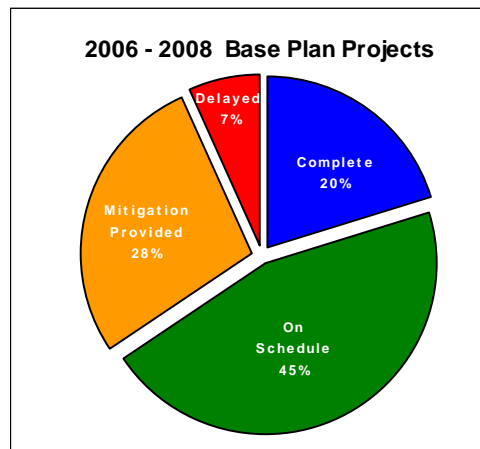
- 33 Projects
- \$70.3M

### MITIGATION PROVIDED

- 18 Projects
- \$43.3M

### DELAYED

- 13 Projects
- \$10.4M



## 2006 Base Plan Projects

### COMPLETE

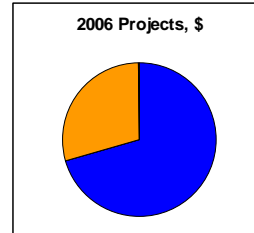
- 23 Projects
- \$29.4M

### MITIGATION PROVIDED

- 3 Projects
- \$12.2M

### DELAYED

- 1 Projects
- \$90K



**Total**  
27 Projects  
\$41.7M

## 2007 Base Plan Projects

### COMPLETE

- 2 Projects
- \$2.2M

### ON SCHEDULE

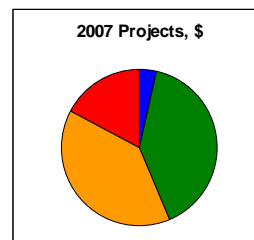
- 17 Projects
- \$24.1M

### MITIGATION PROVIDED

- 12 Projects
- \$23.6M

### DELAYED

- 12 Projects
- \$10.4MM



**Total**  
43 Projects  
\$60.3M



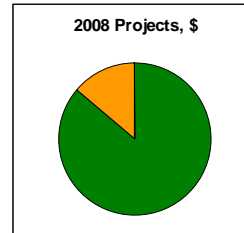
## 2008 Base Plan Projects

### ON SCHEDULE

- 16 Projects
- \$46.2M

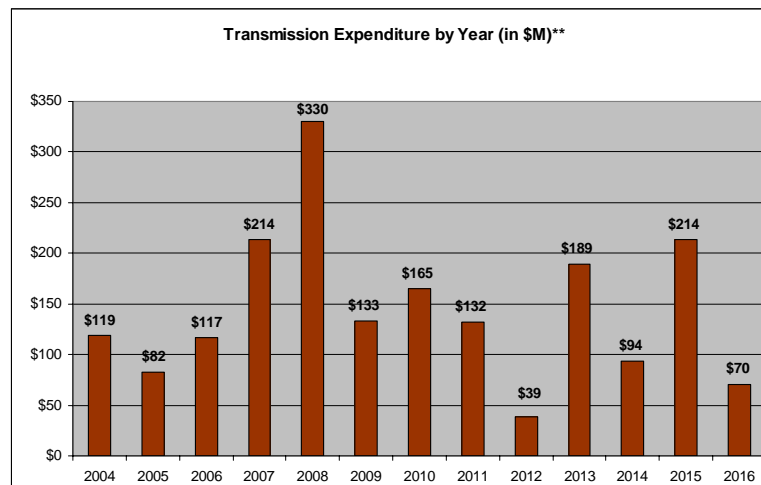
### STATUS UNKNOWN

- 3 Projects
- \$7.5M



**Total**  
**19 Projects**  
**\$53.7M**

## Total Transmission Expenditure\*

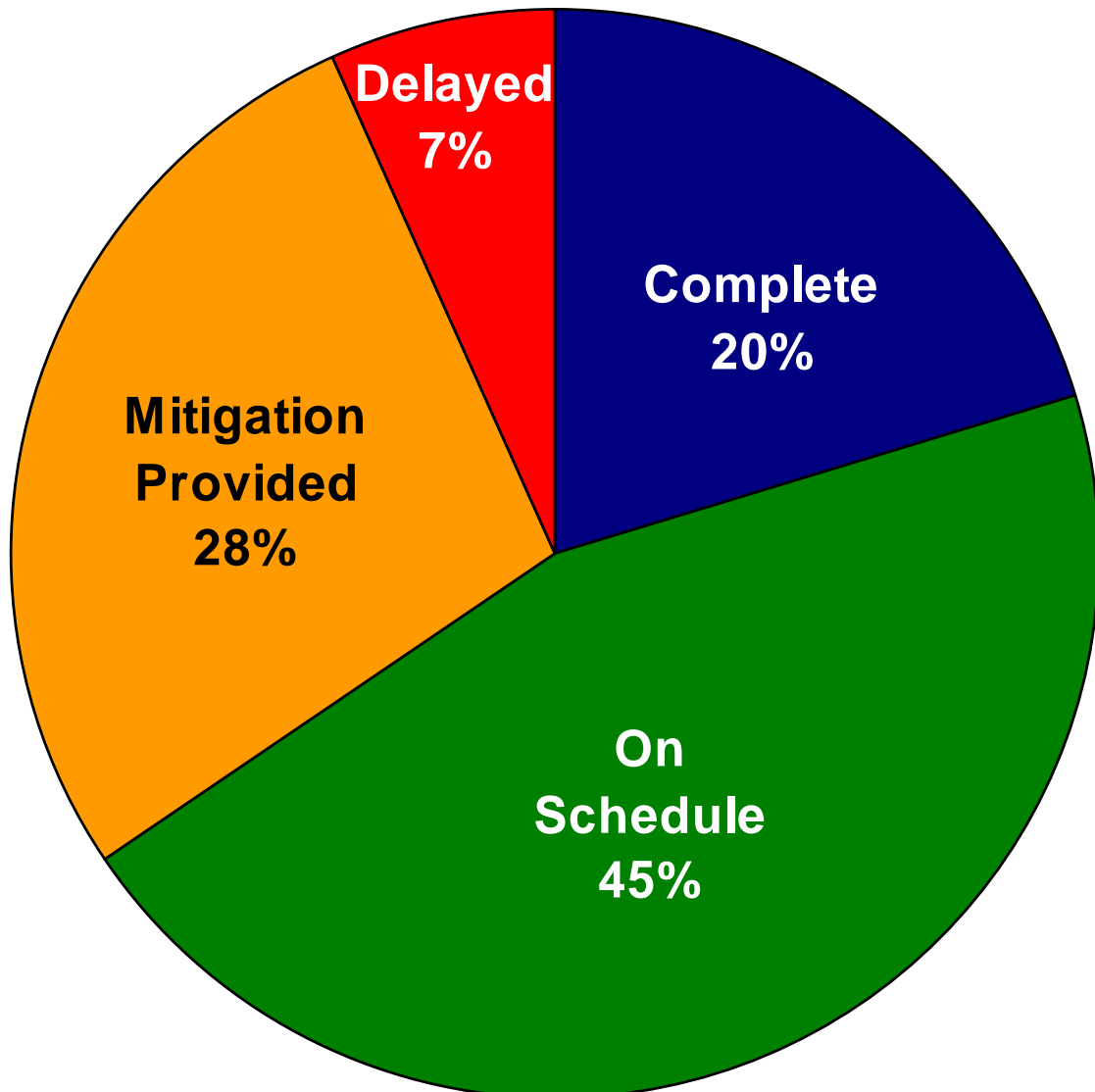


\* Total transmission expenditure in SPP, including projects designated Base Plan and beyond  
 \*\* Cost estimates do not include devices, only transmission lines and transformers

# Transmission Expansion Project Status

June 2007

## 2006 - 2008 Base Plan Projects



# Transmission Expansion Project Status

June 2007

## CURRENT

Base Plan Transmission Projects <sup>1</sup>			
			<i>As of April, 2007</i>
	2006	2007	2008
<b>Number of Projects</b>	27	43	19
<b>Complete</b>	\$29.4M 23 projects	\$2.2M 2 projects	
<b>On Schedule</b>		\$24.1M 17 projects	\$46.2M 16 projects
<b>Mitigation Provided</b>	\$12.2M 3 projects	\$23.6M 12 projects	\$7.5M 3 projects
<b>Delayed</b>	\$90,000 1 project	\$10.4 M (17%) 12 projects	
<b>TOTAL</b>	<b>\$41.7M</b>	<b>\$60.3M</b>	<b>\$53.7M</b>

## HISTORICAL <sup>2</sup>

Transmission Expenditures <sup>3</sup>	
2004	2005
\$119M	\$83M

## FUTURE <sup>2</sup>

Projected Transmission Expenditures							
2009	2010	2011	2012	2013	2014	2015	2016
\$133M	\$165M	\$132M	\$39M	\$189M	\$94M	\$214M	\$70M

<sup>1</sup> Additional transmission expansion beyond Base Plan for 2006 – 2008: \$284 M

<sup>2</sup> Projected costs are for transmission lines and transformers only, excluding devices.

<sup>3</sup> From best known projects in the 2004-2005 STEP; projects occurred before bright line for Base Plan status.

# Southwest Power Pool Balanced Scorecard

Measures		3Q Through 4/30/07	Benchmark	SCORING CRITERIA										Raw Score	Weight (%)	Subtotal Score
				10	9	8	7	6	5	4	3	2	1			
					Stretch Range			Goal Range			Improvement Needed					
<b>Stakeholder</b>	Transmission Service Granted															
	MWh's EI Cleared															
	Price Separation															
	Reliability Index															
	Net Inadvertent															
	Load Shed Alarms															
	OOME Alarms															
	Firm Curtailments															
	Transmission Service Refused															
	\$ Transaction Value															
	Benefit Calculation															
	Customer Satisfaction															
	Board Effectiveness															
<b>Financial</b>	Annual Cost / Annual Volume															
	Operating Expense / Employee															
	\$/MWh															
	\$ Transaction / Employee															
	Timeliness of Daily Posting															
	Clearing Disputes															
	Level of Disputes															
	Corporate Risk															
<b>Learning &amp; Growth</b>	Bad Debt Expense															
	Overall Turnover															
	Employee Retention															
	Professional Certification															
	Promotion Rates															
	Organizational Diversity															
<b>Performance</b>	Compensation															
	NERC Compliance															
	SAS70 Compliance															
	Organizational Effectiveness															
	Strategic Goals Progress															
	Regulatory Success															
MMU Reporting																
														<b>Total Score</b>		
2006 Fiscal Year-End Performance					<b>Base</b>	<b>1Q</b>	<b>2Q</b>	<b>3Q</b>	<b>4Q</b>						<b>Goal</b>	
															<b>Stretch</b>	

Current Performance value must meet or exceed scoring criteria range.



\* Indicates annual measure  
 \*\* Indicates semi-annual measure  
 All other measures are collected quarterly unless otherwise stated



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*today & in the future***



Adoption of Organizational  
Metrics at SPP

It's not about metrics; it's all about performance

## It's Not About Metrics, It's All About PERFORMANCE

- **In general, the Performance Metrics process provides a roadmap for performance excellence in all key areas of the organization.**
  - Integrates key business elements
  - Non-prescriptive and adaptable
  - Focused on results
  - Systems perspective for achieving organization-wide goal attainment

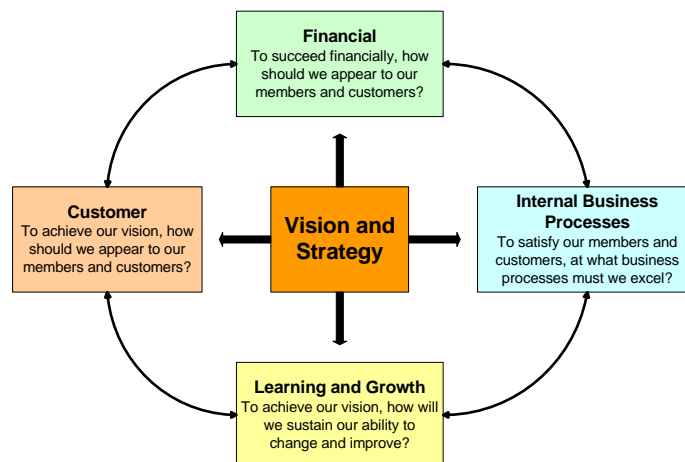
## It's Not About Metrics, It's All About PERFORMANCE

- **For SPP, Establishing Criteria for Performance Metrics Supports the SPP Mission:**
  - Helping our Members work together to keep the lights on... today and in the future
- **... and is Based on SPP Value Propositions:**
  - Relationship-based
  - Member-driven
  - Independence through Diversity
  - Evolutionary vs. Revolutionary
  - Reliability and Economics Inseparable

## It's Not About Metrics, It's All About PERFORMANCE

- **Objective: Delivery of ever-improving value to Members and other stakeholders**
  - **Outcomes:** Improved reliability, commercial effectiveness and organizational value
  - **Process:** Improvement of overall organizational effectiveness and capabilities as a provider of reliability and commercial services
  - **People:** Organizational and personal learning

## The Balanced Scorecard Approach to Performance Measurement



## What is a “Balanced Scorecard”?

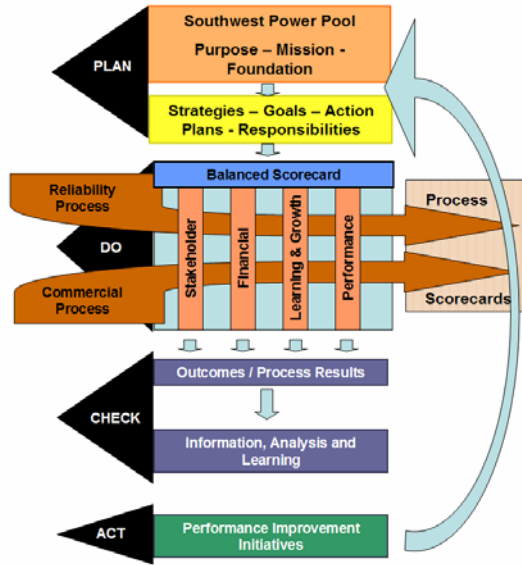
- **Harvard Professors Robert Kaplan and David Norton developed a performance measurement model that balanced assessment of historical financial measurements with drivers of future performance.**
- **This model, called the “Balance Scorecard”, consists of measurement in four distinct, yet related perspectives:**
  - Financial
  - Customer
  - Internal Processes
  - Employee Learning and Growth

## What is a “Balanced Scorecard”? (cont.)

- **Today the Balanced Scorecard, or models based on it, are widely adopted by profit, not-for-profit, and government organizations.**
- **Process Scorecard:**
  - Allows a horizontal view of work performance
  - Predicts organizational outcomes / results
  - Quantifies the “value chain”; evaluates throughput
  - Used as the primary tool for analyzing what is driving Balanced Scorecard results



# Metrics



# SPP Balanced Scorecard

Measures	3Q Through 4/30/07	Benchmark	10	9	8	7	6	5	4	3	2	1	Raw Score	Weight (%)	Subtotal Score
			Stretch Range			Goal Range		Improvement Needed							
Stakeholder															
Financial															
Learning & Growth															
Performance															
													Total Score		
													Goal		
													Stretch		

2006 Fiscal Year-End Performance	Base	1 Qtr	2 Qtr	3 Qtr	4 Qtr
n/a					

Exceeding Goal	Blue
Goal	Green
Improvement Needed	Yellow
Unacceptable	Red

\* Indicates annual measure  
 \*\* Indicates semi-annual measure  
 All other measures are collected quarterly unless otherwise stated



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Future Market Operations

**Board of Directors/Members Committee**

**June 12, 2007**

The future market development requires extensive resources to implement and coordination with other operational initiatives.

## Agenda

- **Critical Decision Points**
- **Development Activities**
- **Development Time**
- **Summary**



## Critical Decisions

The real-time energy market is a key starting point in energy markets.

- **Ancillary Service Market** is not contingent upon other market functions (e.g. day-ahead energy market).
- **Market-based Unit Commitment, financial transmission rights, virtual offers/bids, energy hubs** are more efficient or dependent on implementation of **Day-ahead Energy Market**.

The consolidation of Balancing Authority responsibilities factors into market design decisions.

- **SPP as a Balancing Authority requires decisions on the obligations and mechanism (either market or other) for:**
  - Acquisition of Ancillary Services
  - Unit Commitment
- **SPP Balancing Authority obligations are critical for:**
  - Acquisition of **Ancillary Services** (specifically Regulation) by Balancing Authority
  - Responsibility for **Unit Commitment**
- **Balancing Authority initiative will compete for resources with further market development.**

Day-ahead energy market assists other aspects of market mechanisms, although not required for consolidated BA.

- **Market based unit commitment is enhanced through capturing self-commitments by the day-ahead process.**
- **Day-ahead energy market is required to permit virtual offer/bids (trading of risk between day prior and current day pricing).**
- **Valuation of financial transmission rights typically is based on day-prior energy prices.**
- **Ancillary service markets may clear day-prior and some markets coordinate with energy pricing.**



## Development Activities

The Market Working Group (MWG) has added a day to each meeting for future design activities.

- **Defining the mature energy market for SPP**
- **Categorizing market functions in other RTOs**
- **Reviewing the mechanisms to meet market functions**

Energy market functions categorize into four groups

- **Energy markets**
- **Transmission Rights**
- **Ancillary Services**
- **Resource Adequacy**

The energy market function includes many mechanisms that add to depth and efficiency.

- ✓ **Real-time Energy Market**
- **Day-ahead Energy Market**
- **Unit Commitment**
- **Energy Hubs**
- **Virtual Bids/Offers**



Transmission rights are crucial to cost assignment, especially when energy flow is constrained.

- **Transmission rights are a hedge against higher costs on “bilateral” transactions from non-economic dispatch to resolve constraints.**
- ✓ **Physical transmission rights**
- **Financial transmission rights**
- **Auction revenue rights**
- **Options/Obligations**

Ancillary service markets are generally the acquisition of capacity for reliability functions.

- **Regulation**
- **Operating Reserves**
- **Reactive and Black Start are generally only under Tariff rates**

Resource adequacy has both long-term and short-term implications.

- **Long-term resource adequacy evaluates whether sufficient resource arrangements exist to serve load in the future.**
  - FERC designated the Regional State Committee as responsible for long-term resource adequacy.
  - Addressed under SPP Criteria 5.
- **Short-term resource adequacy evaluates whether sufficient resource arrangements exist to serve load in real-time.**
  - Installed capacity
  - Available dispatchable range checks



Development Time

The effort to develop additional market mechanisms and functions is not minor.

- **Ancillary Services may take eighteen months to two years to design and develop software (other RTO experiences) from the point of agreement.**
- **Day-ahead Energy Market may take two years for the energy portion to design and develop software. Additional components, e.g. Unit Commitment will add time.**
- **Simultaneous development of both efforts will result in some efficiencies.**

Consensus development of the next steps and cost benefit analysis requires time.

- **Development of the implementation sequence and major design criteria for analysis purpose is estimated at five months.**
- **Cost benefit analysis for State Commission consideration will take approximately six months.**
- **Approval by Regional State Committee of cost benefit analysis is indeterminate.**

Consolidation of Balancing Authority responsibilities has an impact on both design and ability to implement market functionality.

- **Ancillary Services may be developed as market or tariff based.**
  - If market based, implementation timeline for Balancing Authority is necessary to reduce rework.
- **Balancing Authority consolidation initiative may have resource conflicts with market development.**
  - Extensive market functionality changes may be delayed in the midst of development.



Two major initiatives require coordination and multi-year resource commitment.

- **Consolidation of Balancing Authority functions requires decisions about Ancillary Services and Unit Commitment.**
- **Development of Ancillary Services Market without knowledge of the Balancing Authority obligations may result in redesign.**
- **Placing priority on other market development may conflict with consolidation of Balancing Authorities.**
- **Significant resource dedication may be required for development of both initiatives simultaneously.**



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