

**THE ELECTRIC INDUSTRY
IN TRANSITION**

**OVERVIEW PRESENTED
BY
JOHN ALLEN MOORE**

**RESOURCE MANAGEMENT
INTERNATIONAL, INC.**

FEBRUARY 12, 1998

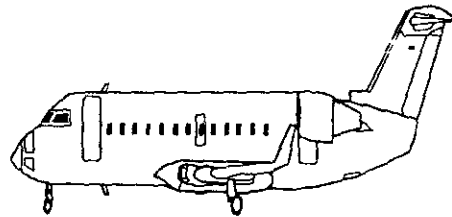
RMI

INDUSTRY DEREGULATION IS NOT NEW

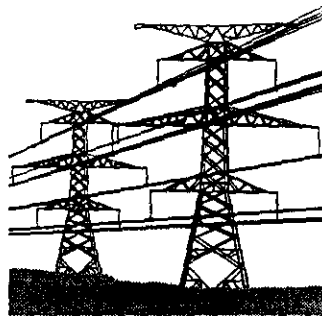
WE'VE SEEN DEREGULATION OF:



"GAS"



WE'RE EXPERIENCING DEREGULATION OF:



ELECTRIC INDUSTRY IN TRANSITION

Moving from Highly Regulated Environment

"Regulatory Compact"

- Defined service area
- Recovery of prudent costs
- Cost-based rates
- Regulated rates of return

Traditional Service Providers

- IOU's, Municipals, Coops, Q.F.'s
- Considerable vertical integration of business

Limited Customer Choice

- Bundled services
- Competition primarily limited to fuel source

Moving to Considerable Deregulation of Marketplace

Wholesale Market Deregulated

- Energy Policy Act of '92 (Federal)
 - FERC Orders 888/889 (open access transmission)
 - Introduced market-based wholesale pricing options
- Public Utility Regulatory Act of '95 (TX)
 - PUC Rules 23.67 & 23.70 (open access transmission)
 - Established opportunity for non-regulated entities: Power brokers and marketers, merchant plants
 - Introduced market-based wholesale pricing option

Retail Market Deregulation In Process

- Regulation at state level
- Deregulation varies by state
 - Some have defined dates
 - Some are using phased programs
 - Experimental programs have been used
- Congress has discussed setting deadlines for states
- Texas Legislature
 - Debated in '97 Session
 - Legislative interim committees' reviews in '98

WHO DIRECTS DEREGULATION OF TEXAS POWER MARKETPLACE

Wholesale Regulation

Public Utility Commission of Texas (PUC)

- ERCOT (Electric Reliability Council of Texas)
 - IOU's - Texas Utilities, Houston Lighting and Power, Central Power & Light, West Texas Utilities
 - Municipals* - City Public Service (San Antonio), City of Austin, Public Utility Board of Brownsville, etc.
 - State Agencies* - Lower Colorado River Authority
 - G&T Cooperatives - South Texas Electric Cooperatives, Brazos Electric Power Cooperative, East Texas Electric Cooperative

Federal Energy Regulatory Commission (FERC)

- SPP: Southwest Power Pool
 - IOU's - Southwestern Public Service Co., Southwestern Electric Power Co.
 - Municipal* - Lubbock Power and Light
 - G&T Cooperatives - Northeast Texas Electric Cooperative, Golden Spread Electric Cooperative
- SERC: Southeastern Electric Reliability Council
 - IOU - Entergy
 - Municipal* - Sam Rayburn Municipal Power Agency
 - G&T Cooperative - Sam Rayburn G&T Electric Cooperative
- WSCC: Western Systems Coordinating Council
 - IOU - El Paso Electric

Retail Regulation

Set by State Legislature

Regulation by PUC

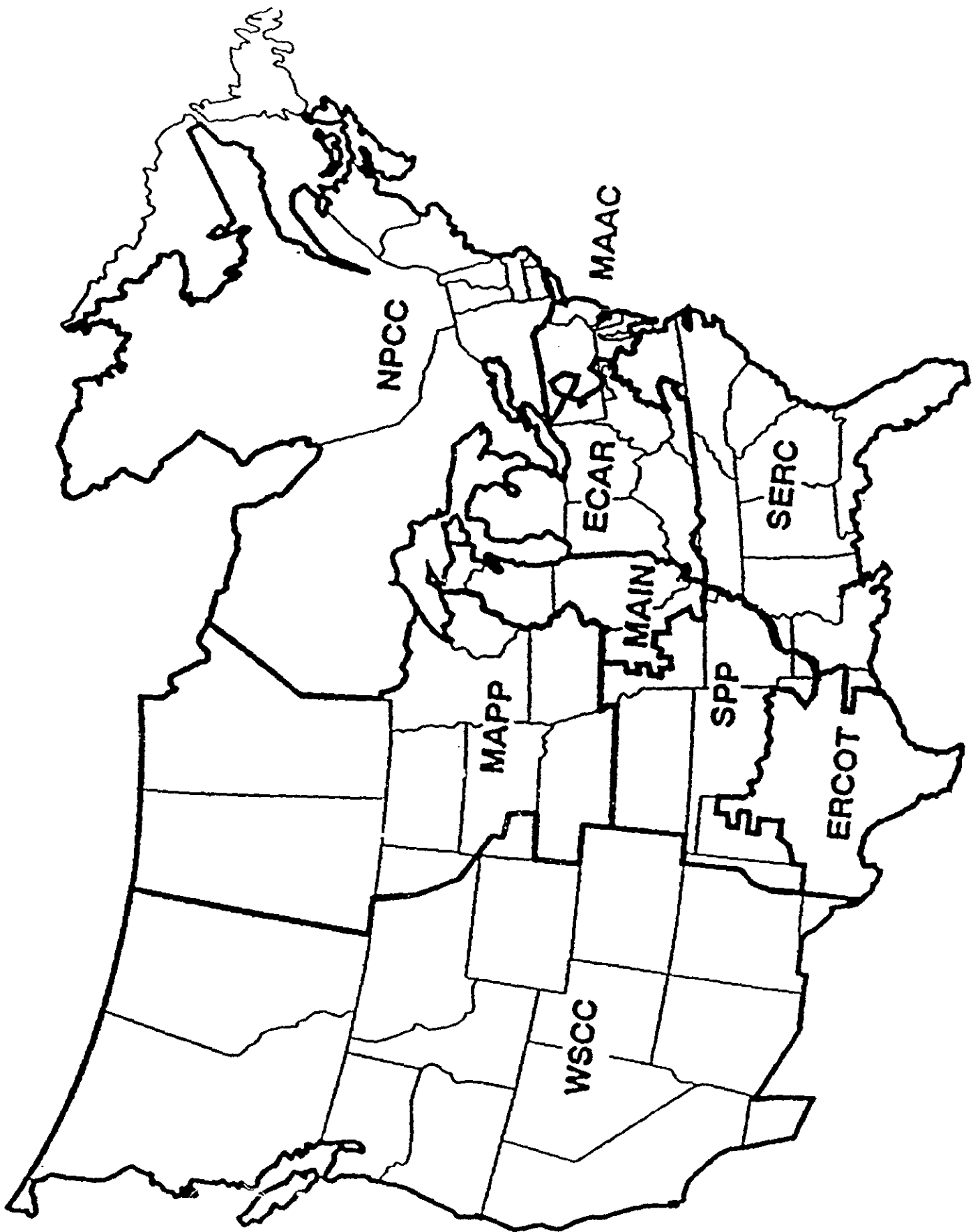
- IOU's
- "Regulated" Distribution Cooperatives

Non-PUC Jurisdiction

- Municipals
- "Deregulated" Distribution Cooperatives

Limited regulatory oversight.

RMI



RMI

FUTURE DEREGULATED INDUSTRY IN TEXAS

Wholesale Market Conditions (Existing)

Full Competition: Many Suppliers

Unbundling of Services

Full Access to Transmission System: ISO Scheduling

Generation supply: market-based pricing

Transmission system: regulated rates

- ERCOT: "TCOS" (70% postage stamp/30% VAMM)
- SPP: developing pool rates
- SERC: regional company rates
- WSCC: regional company rates

Retail Market Conditions (Not Yet Finalized)

Expect Competition for Commodity Supply

Expect Competition for Valued-Added Services

Expect Continued Regulation of Distribution System Services

Timing?

- 1999 Legislation
- 2001 implementation

Stranded Investments?

Probable Impact on Customers

Choice of Power Supplier

Choice of Value-Added Service Provider(s)

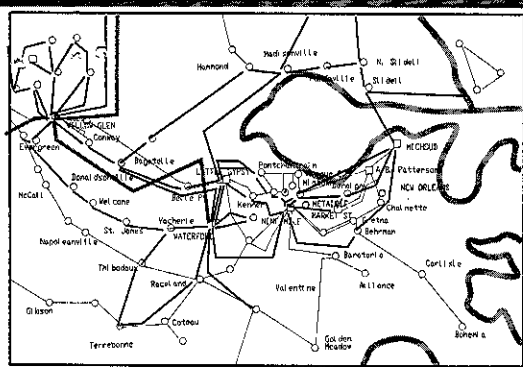
Convergence of Power/Gas Supply

Aggregate Energy Purchasing Across Regions

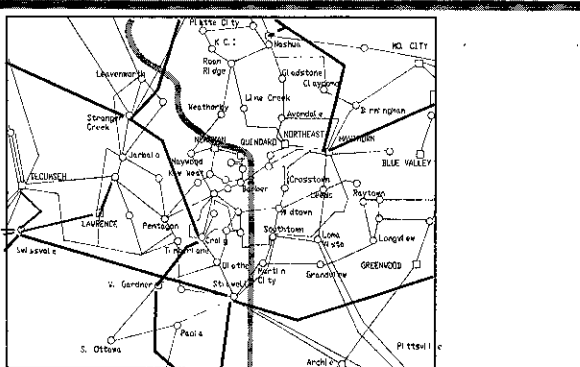
Bundle Multiple Utility (Energy/Telecom/Etc.) Supplies

Leverage Installed Generation Capacity Across Regions

Offer Power Supplier Alliances



New Orleans

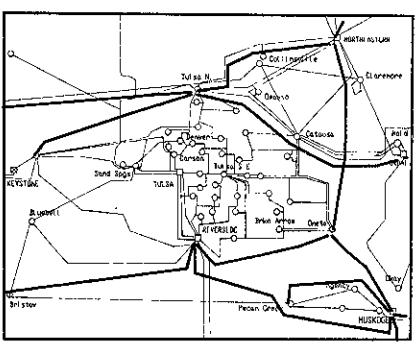
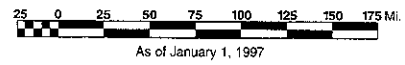


Kansas City

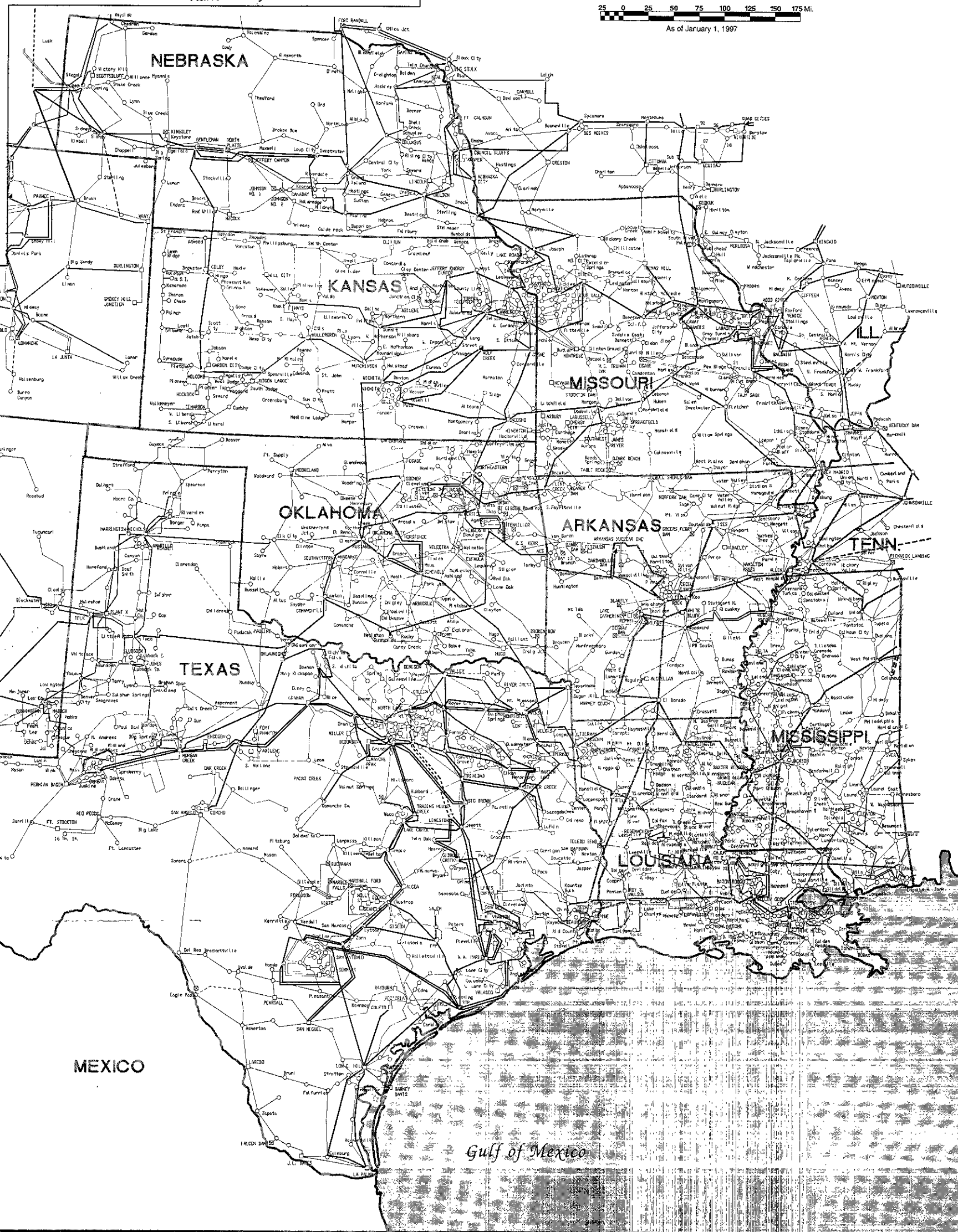
SOUTHWEST POWER POOL

ALSO TRANSMISSION LINES OF ADJACENT SYSTEMS

- FOSSIL FUELED ELECTRIC POWER PLANT
- ⊠ HYDRO-ELECTRIC POWER PLANT
- ▣ NUCLEAR-ELECTRIC POWER PLANT
- MAJOR SUBSTATION
- ⊕ AC-DC-AC TIE FACILITY
- MAJOR POPULATION CENTER
- 500 KV & OVER TRANSMISSION LINES
- 345 KV TRANSMISSION LINES
- 230 KV TRANSMISSION LINES
- 115-161 KV TRANSMISSION LINES
- - - TRANSMISSION LINE-PROPOSED
- ~ PHASE SHIFTING TRANSFORMER



Tulsa



MEXICO

Gulf of Mexico