



ERCOT Update

House Committee on Regulated Industries
Status of the Electric Industry
Feb. 8, 2005

Electric Reliability Council of Texas

Thomas F. Schrader, CEO
Sam Jones, Executive VP and COO



What is ERCOT?

Electric Reliability Council Of Texas

- Intrastate Electric Interconnection
- Public Utility Commission Of Texas (PUCT) jurisdictional
- 70,000 MW of active generation
- 37,800 circuit miles of transmission lines
 - Lower-voltage local distribution lines are the responsibility of the distribution companies, and are not overseen by ERCOT
- 60,095 MW Peak Demand on August 7, 2003
- In existence since 1941
- Independent, not-for-profit organization



ERCOT's Mission

ERCOT's Mission is to create value for Texas electric consumers through electric grid reliability, market efficiency, and fairness.

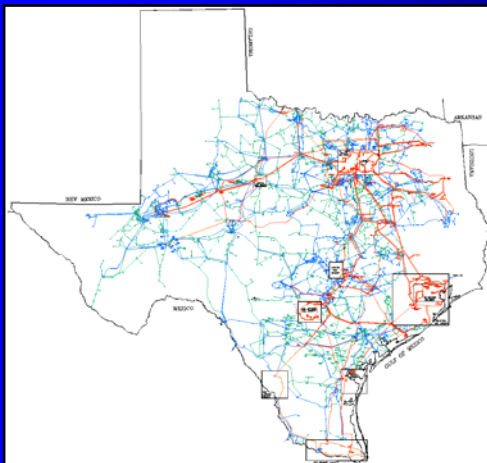
February 8, 2005

House Regulated Industries Committee

3



The ERCOT System



- 200,000 square miles of Texas
- 8+ million customers (meters served)
- Over 500 generating units
- 8,100+ circuit miles of 345 kV lines
- 18,200+ circuit miles of 138 kV lines
- 11,500 circuit miles of 69 kV lines

February 8, 2005

House Regulated Industries Committee

4



ERCOT's Role in Reliability 'Job One'

- ERCOT "directs traffic" on the grid to maintain reliability
 - Coordinates scheduling of power so generation matches load at all times
 - Analyzes grid conditions continuously in real-time
 - Solves transmission congestion problems
 - Ensures adequate operating reserves are available
- Coordinates emergency recovery
- Ensures compliance with NERC standards

February 8, 2005

House Regulated Industries Committee

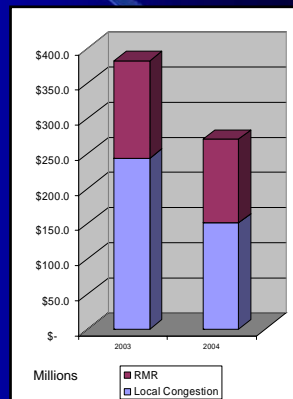
5



Congestion Management

Congestion Management is a key component of ERCOT's role in grid reliability and the wholesale market

- Excluding RMR, local congestion cost uplift was reduced by \$117 million (43%) from 2003-2004
 - Dynamic ratings for line limits
 - Transmission system additions & upgrades
 - Congestion analysis



February 8, 2005

House Regulated Industries Committee

6



Texas Retail Market

Migration from Affiliated Retailer

	% of Load	% of Customers	
	<u>Nov. '04</u>	<u>Nov. '04</u>	<u>Nov. '03</u>
Residential	22%	19%	13%
Small Non-Residential	60%	23%	16%
Large Non-Residential	67%	63%	54%

A total of 1.27 million customers in competitive choice areas are now receiving power from non-incumbent providers



Retail Market

How Does Texas Stand?

- Retail market ranked #1 in North America by Center for the Advancement of Energy Markets (CAEM)
 - More retail adoption than any other N. Am. market
- All parties (ERCOT, TDSPs, REPs) must function well for system to work
- ERCOT's unique role as neutral registration agent has been cited as a major reason for success of this market
- Major upgrade of retail transaction system implemented on schedule in 8/04 -- automates the move-in/move-out process
- Transaction timeliness & accuracy rates of 98-99%



ERCOT's Role in Addressing Market Issues

- ERCOT is an independent source of facts and expertise for policymakers and stakeholders
- Stakeholder process assures changes will work
- Current issues:
 - Reserve margins
 - Fuel diversity
 - Transmission planning
 - Wind power
 - Grid security
 - Wholesale market design

February 8, 2005

House Regulated Industries Committee

9



Reserve Margins

- No immediate crisis – 2005 reserve margin is 15-17%
- Recent mothball and decommissioning actions show that market forces are working
 - Older, less efficient plants are less competitive
- TAC Task Force developing better process for reporting status of mothballed units
 - Which will likely come back online?
- ERCOT will actively participate in PUC resource adequacy proceedings

February 8, 2005

House Regulated Industries Committee

10



Fuel Diversity

Electric generation fuel sources in ERCOT

TAC subcommittee is currently assessing vulnerability of electric supply to natural gas curtailments

<i>Fuel Source</i>	<i>% Capacity (Dec. '04)</i>	<i>% Energy (Jan.-Nov. '04)</i>
Natural Gas	63%	38%
Dual Fuel*	10%	
Coal	19%	42%
Nuclear	6%	18%
Renewables	2%	2%

* Natural Gas or Diesel Fuel; all plants currently configured for gas

February 8, 2005

House Regulated Industries Committee

11



Transmission Planning

- Nearly \$2 billion has been invested in ERCOT transmission facilities since 1999, including:
 - 900 miles of new transmission line construction
 - Numerous substation additions & improvements
- An additional \$1.8 billion will be invested by 2008 based on current projections
 - Includes >500 miles of new transmission lines already being permitting or under construction
- Transmission system expansion faces competing priorities:
 - West Texas (wind power)
 - North Texas (DFW area responsible for ~50% of local congestion costs in ERCOT)
 - Rio Grande Valley
- Providers & regulators must evaluate costs & benefits

February 8, 2005

House Regulated Industries Committee

12

Wind Power



- 1,300 MW of wind capacity is now online in West Texas (1200 MW since SB7)
- 550 MW more to go online in 2005

- Texas is well on its way to meeting renewable mandate from SB7 (2,000 MW by 2009)
- West Texas is a premium site for wind energy due to geography & weather patterns
- Power from existing wind farms must be delivered hundreds of miles to population centers in the east, and is not as controllable or predictable as traditional sources
 - Creates new challenges in system design & operation
- Identified upgrades to transmission system could accommodate existing mandate, but not a significant increase above 2,000 MW from West Texas

Grid Security

- Transmission system has continuous real-time telemetry to ERCOT
- Fully redundant and staffed backup control center
- Standing Emergency Operation Procedures
 - Includes Emergency Electric Curtailment Plan for extreme contingencies
 - Black Start
- Full compliance with NERC security standards
- Working with PUC to enhance and improve communication procedures



Wholesale Market Design

- Texas Nodal Team (TNT) stakeholders working toward consensus on details of new market design as required by PUC rule (9/03)
- Cost-Benefit study filed with PUC in December
- Draft protocols to be filed with PUC March 18 for review
- ERCOT will be ready to develop and implement any new market design approved by PUC

February 8, 2005

House Regulated Industries Committee

15



Management Practices & Controls

Numerous actions taken immediately, including...

- HR & Contracting
 - Mandatory competitive bidding
 - Mandatory criminal background checks
 - Stronger ethics agreement
- Finance & Accounting
 - Tightened approval and control practices
 - Added requirement for financial terms of contracts on PO's
 - Secondary review of invoices
- General
 - Implemented budget reductions and reduced Administration Fee
 - New CFO hired (Roy Bowman)
 - Security Action Plan developed and being implemented
 - Mandatory management training on contractor policies
 - Strengthened internal audit program with new staff
 - 3rd-party anonymous reporting service to report suspected activity

February 8, 2005

House Regulated Industries Committee

16



Management Action Plan



February 8, 2005

House Regulated Industries Committee

17