



# ERCOT Update

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House Committee on Regulated Industries

November 14, 2005

*ERCOT's VISION is for Texas electricity customers to realize the greatest value possible from reliable electric power supplies and access to competitive markets for electricity.*

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- **Grid operations**
- **Grid reliability**
- **Transmission planning**
- **Market operations**
  - Wholesale settlement & billing
  - Retail transaction data & registrar of choice
- **Source of facts & data**

# ERCOT Region & Quick Facts

## Electric Reliability Council Of Texas

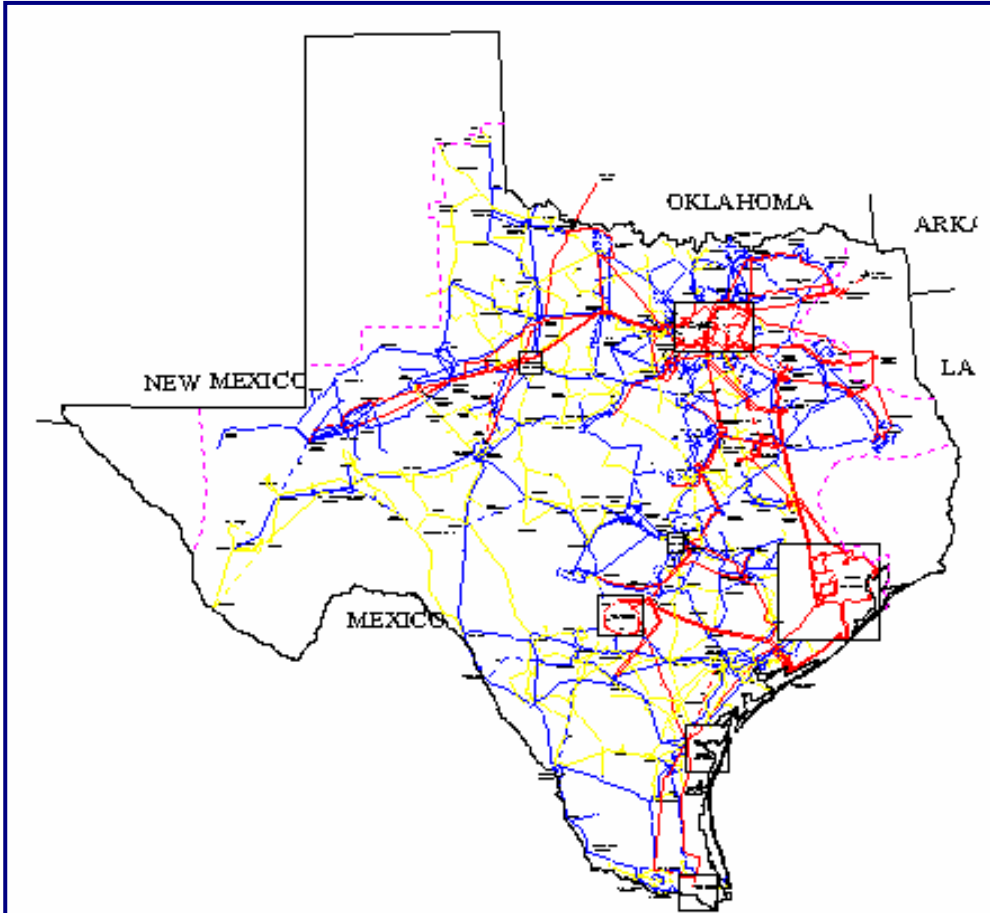


- **Independent, not-for-profit organization since 1941**
- **Intra-state electric interconnection**
  - 1 of 3 North American interconnections
  - Connected only by DC ties
- **One of 10 NERC Regional Reliability Councils**
- **Independent System Operator**
  - Administrator of the wholesale & retail markets
  - Neutral registration agent for retail customers
  - Supervisor of the transmission planning process
- **Public Utility Commission of Texas (PUCT) jurisdictional**

# ERCOT Market Operations

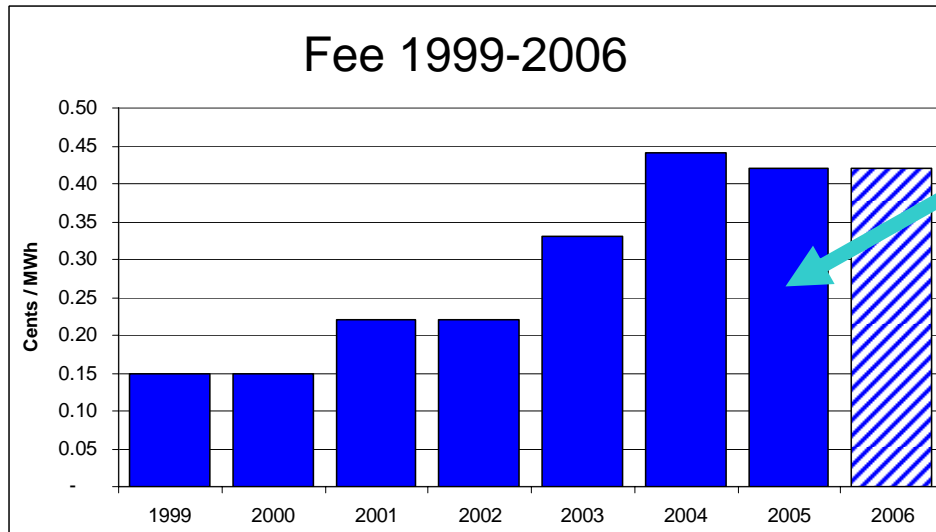
- **6.1 million customers have the “Power to Choose”**
- **ERCOT is central hub of retail transaction system**
  - Registration agent for all of these customers and their retail providers
    - Independent, neutral entity to facilitate customer switching
    - Assures transmittal of meter read data to proper REP
  - ERCOT has now completed more than 16.2 million primary transactions (mostly switches, move-ins, move-outs)
    - YTD switches averaging 58,000 per month
    - YTD move-ins averaging 212,000 per month
  - Each primary transaction backed by numerous supporting transactions
  - Standardization lowers transaction costs for all
  - Customer complaint levels related to choice are low
- **No other ISO in North America has these responsibilities**
- **ERCOT market operations are the cornerstone for settlement for 100% of market**
- **ERCOT manages markets totalling approximately \$1 billion annually for Balancing Energy & Ancillary Services**

# ERCOT Region Facts & Figures



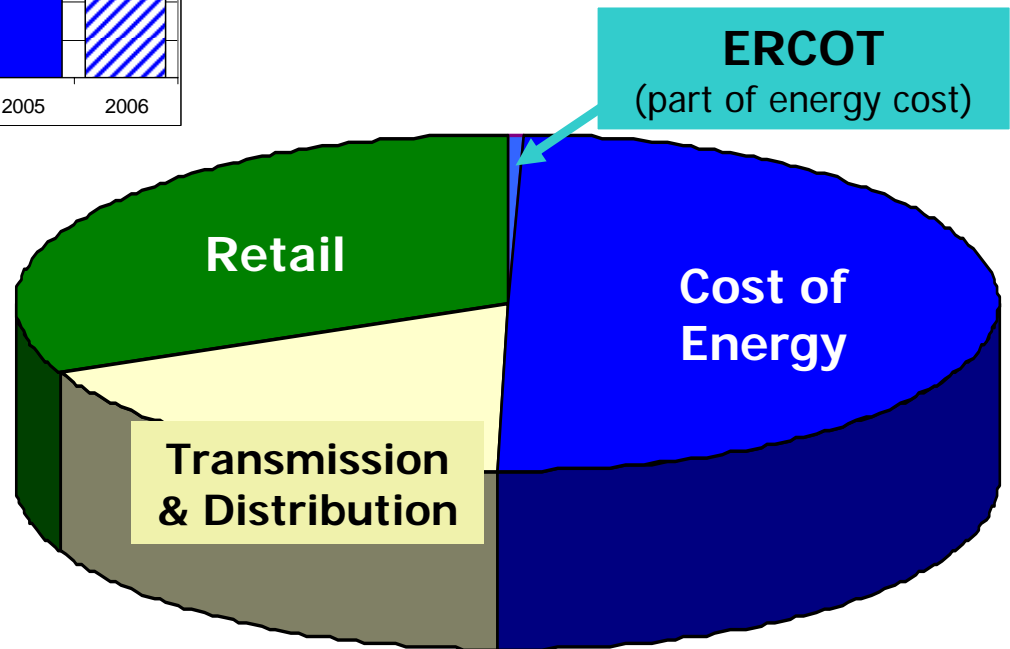
- **200,000 square miles**
  - 75% of Texas land area (not including Panhandle, El Paso area, 2 areas of East Texas)
  - 85% of Texas load
  - 20 million end-use customers
- **38,000 miles of transmission lines**
  - Nearly 700 miles of 345 KV lines added since 1999
- **77,000 MW of total resources**
  - 583 generation facilities
  - 26,000 MW new generation capacity added since 1998
- **60,270 MW peak load (2005)**
- **16.9% reserve margin for 2005**
- **3 DC Ties**
- **Single point of control**

# ERCOT System Administration Fee



Current Fee: \$.42 per MWh

Residential Electric Bill  
Approximate breakdown



# Retail Market Report Card

## Customers Choosing Competitive Retail Providers

As of 9/30/05

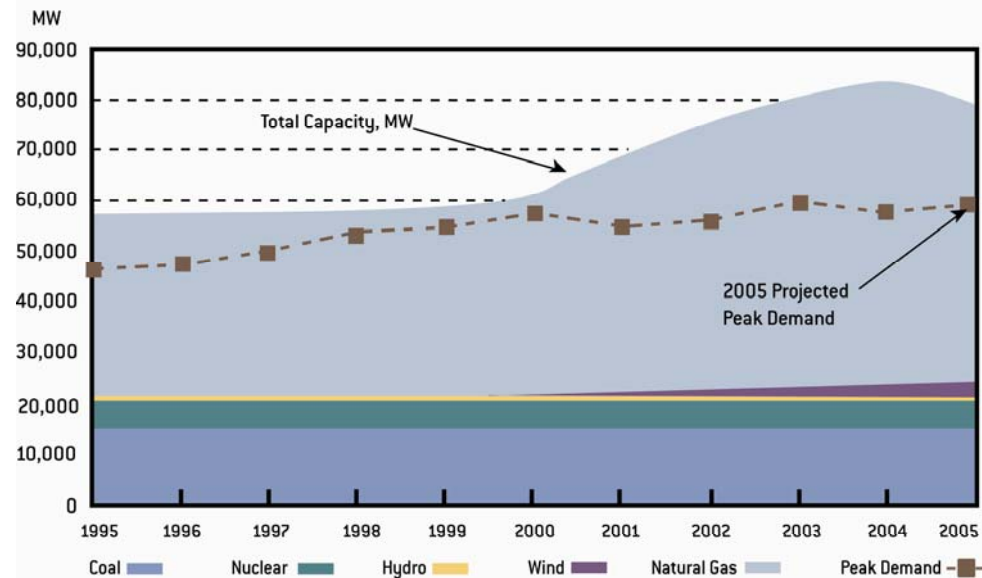
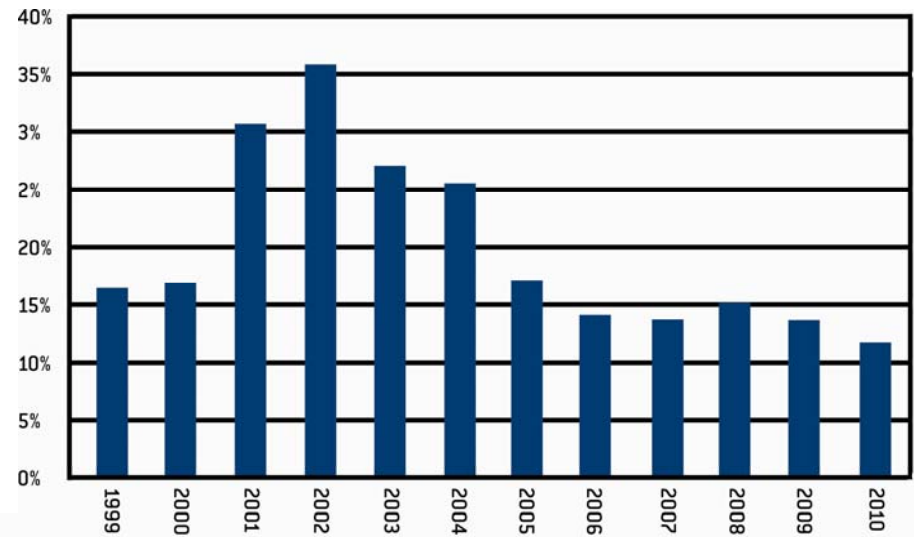
<u>Category</u>	<u>Customers</u>	<u>Load</u>
<b>Residential</b>	<b>27%</b>	<b>34%</b>
<b>Small Non-residential</b>	<b>31%</b>	<b>79%</b>
<b>Large Non-residential</b> (>1MW in peak demand)	<b>73%</b>	<b>73%</b>

*Over 2.2 million total switches completed to date*



# ERCOT Reserve Margins

## ERCOT Reserve Margins 1999-2010



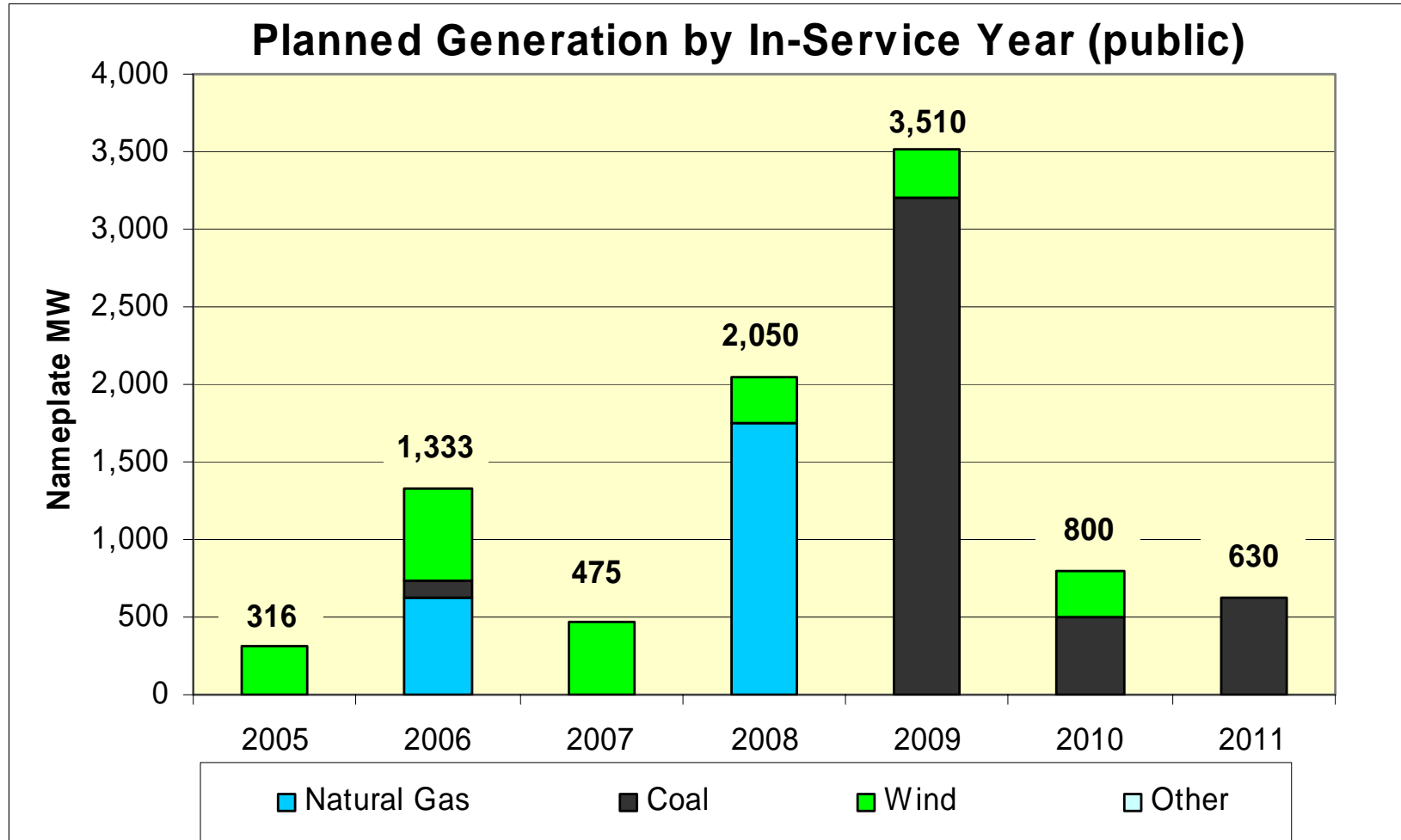
## Generation Capacity by Fuel Type

## Electric generation fuel sources in ERCOT

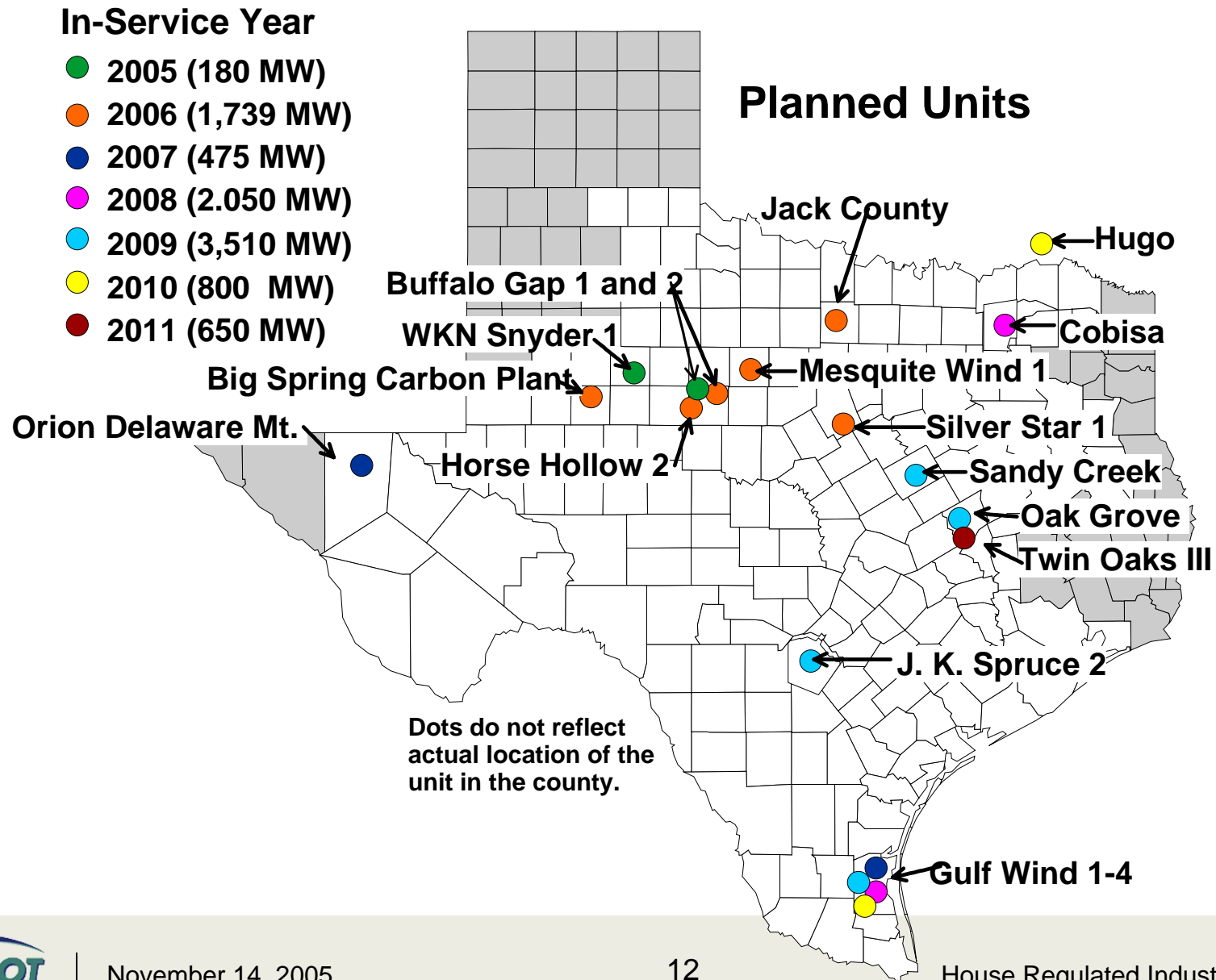
<i>Fuel Source</i>	<i>% Capacity (Summer '05)</i>	<i>% Energy (Jan.-Sept. '05)</i>
<b>Natural Gas</b> (includes Dual Fuel)*	<b>72%</b>	<b>47%</b>
<b>Coal</b>	<b>20%</b>	<b>38%</b>
<b>Nuclear</b>	<b>6.5%</b>	<b>13%</b>
<b>Renewables/Other</b>	<b>1.5%</b>	<b>2%</b>

*\* Dual fuel-capable plants are currently configured for gas*

# New Generation Activity



# New Generation Activity by Region



# New Generation Activity -- Total

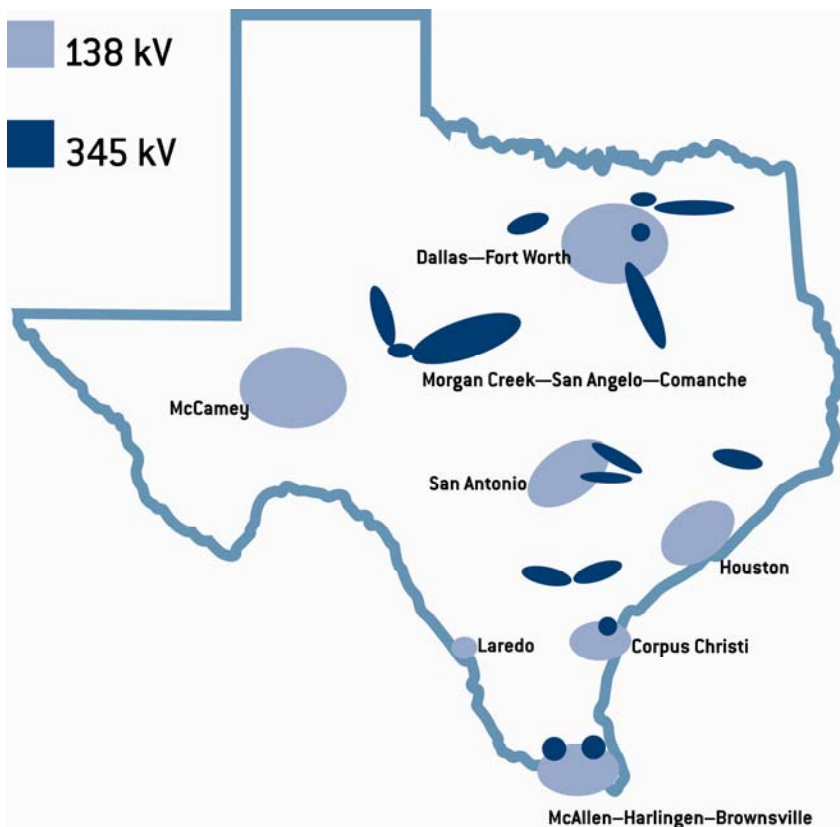
## Capacity in MW

<i><b>Fuel Source</b></i>	<i><b>Public</b></i>	<i><b>Non-Public</b></i>	<i><b>Total</b></i>
<b>Natural Gas</b>	<b>2,370</b>	<b>2,590</b>	<b>4,960</b>
<b>Coal</b>	<b>4,450</b>	<b>625</b>	<b>5,075</b>
<b>Wind</b>	<b>2,282</b>	<b>4,131</b>	<b>6,413</b>
<b>Other</b>	<b>12</b>	<b>425</b>	<b>437</b>
<b>TOTALS</b>	<b>9,114</b>	<b>7,771</b>	<b>16,885</b>

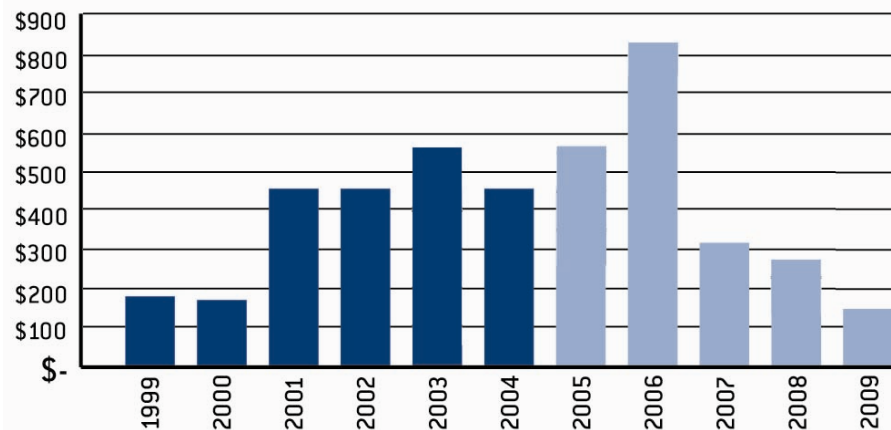
*NOTE: Includes projects under consideration or in planning that may or may not be built.*

# New Transmission Investment

## Major Transmission Additions Completed



## New Transmission Investment 1999-2009



# Transmission Planning

- **Transmission planning & development are key elements supporting a competitive market**
- **ERCOT leads an open, stakeholder-based planning process**
- **ERCOT region produces more results (projects, line miles) than any other region of the U.S.**
- **Major transmission projects initiated in 2005:**
  - DFW
  - West Houston
  - Rio Grande Valley

- **Report on Existing & Potential System Constraints**
  - The annual “October 1 Report”
- **Special study underway to identify projects to relieve marginal cost differentials**
  - Due to PUC by Jan. 31
- **Senate Bill 20 Studies** (due by 12/31/06)
  - Competitive Wind Zones
  - Long-Term Transmission Planning



- **PUC-ordered audits in 2004**

- Vulnerability to hacking (CanAudit)
- Internal business controls assessment (Deloitte)
- Internal security procedures (Ernst & Young)

- **Other audits**

- SAS 70 (PwC): 2005 audit now complete
- Annual financial audit (PwC): 2005 audit complete
- ERCOT internal audit program (ongoing)
- Comptroller review: completed May 2005

*No compromises to grid reliability or market data  
found in any of the audits.*

- **Management Action Plan ongoing**

- Internal Control Management
- Enterprise Risk Management

- **168 of 288 audit points now completed and verified**

# Management Action Plan (MAP)



- **Amended Bylaws approved by Membership this month**

- Adds 2 independent ERCOT Board members (unaffiliated with industry)
  - Board member search underway using independent search firm
- Adds conflict of interest requirements for Board members
- Requires Board meetings to be open and posted in advance

- **Independent Market Monitor support**

- ERCOT to fund and support monitor selected by PUC
- Monitor reports to PUC
- RFI/RFQ currently posted to identify candidates
- PUC rulemaking underway

***ERCOT's MISSION is to direct and ensure reliable and cost-effective operation of the electric grid and to enable fair and efficient market-driven solutions to meet customers' electric service needs.***