



# **TPPA / TEXAS UPDATE**

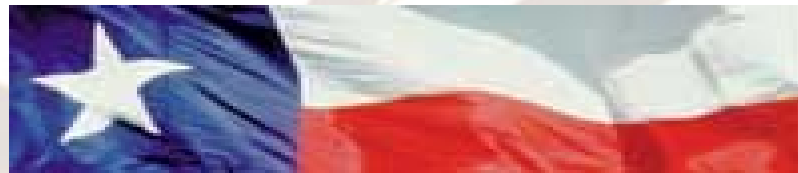
## *Status & Outlook for Key Industry Issues*

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# Today's Presentation Topics

1. Retail Electric Markets
2. Wholesale Electric Markets
3. Resource Adequacy
  - *Status*
  - *Key Issues and Legislative Outlook*



# Retail Electric Markets

## *Status in Deregulated Areas*

- Spring, 2007: Legislative and public concerns about retail prices, TXU merger, consumer impacts.
- Summer, 2007: Fewer concerns due in part to mild weather, moderate electric bills.
- Early 2008: Fuel price fluctuations lead to more public discussion on market effectiveness.
  - Some point to market achievements.
  - Others are more negative and critical.



# Retail Electric Markets

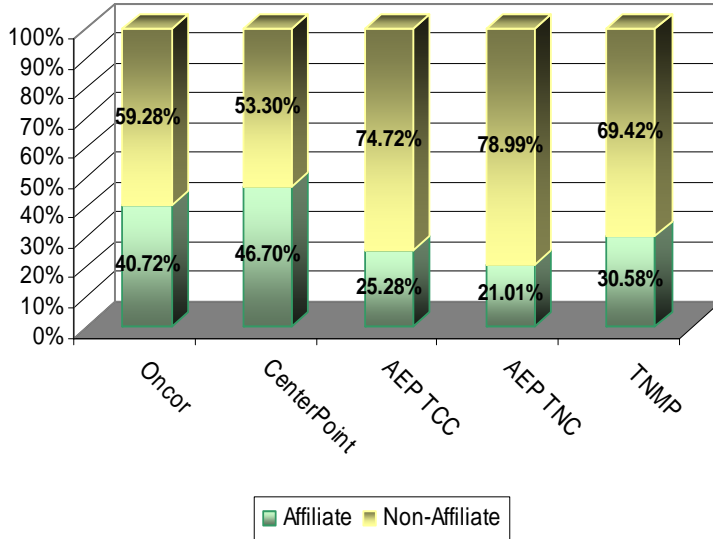
*Status: Maturing*

TDU Area	# REPs	# Products	Lowest Price (Cents/kWh)	Highest Price (Cents/kWh)
AEP - TCC	30	101	9.8	14.9
AEP - TNC	28	95	10.0	15.0
CenterPoint	28	101	9.6	14.3
Oncor	28	101	9.3	14.3
TNMP	26	92	9.9	14.5

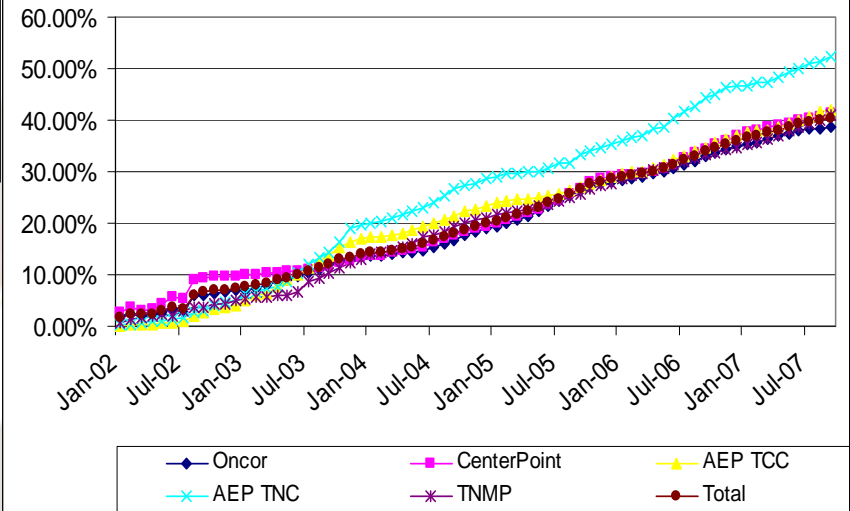
# Retail Electric Markets

*Status: Maturing.*

Percentage of Energy sold by Affiliate Status of REP



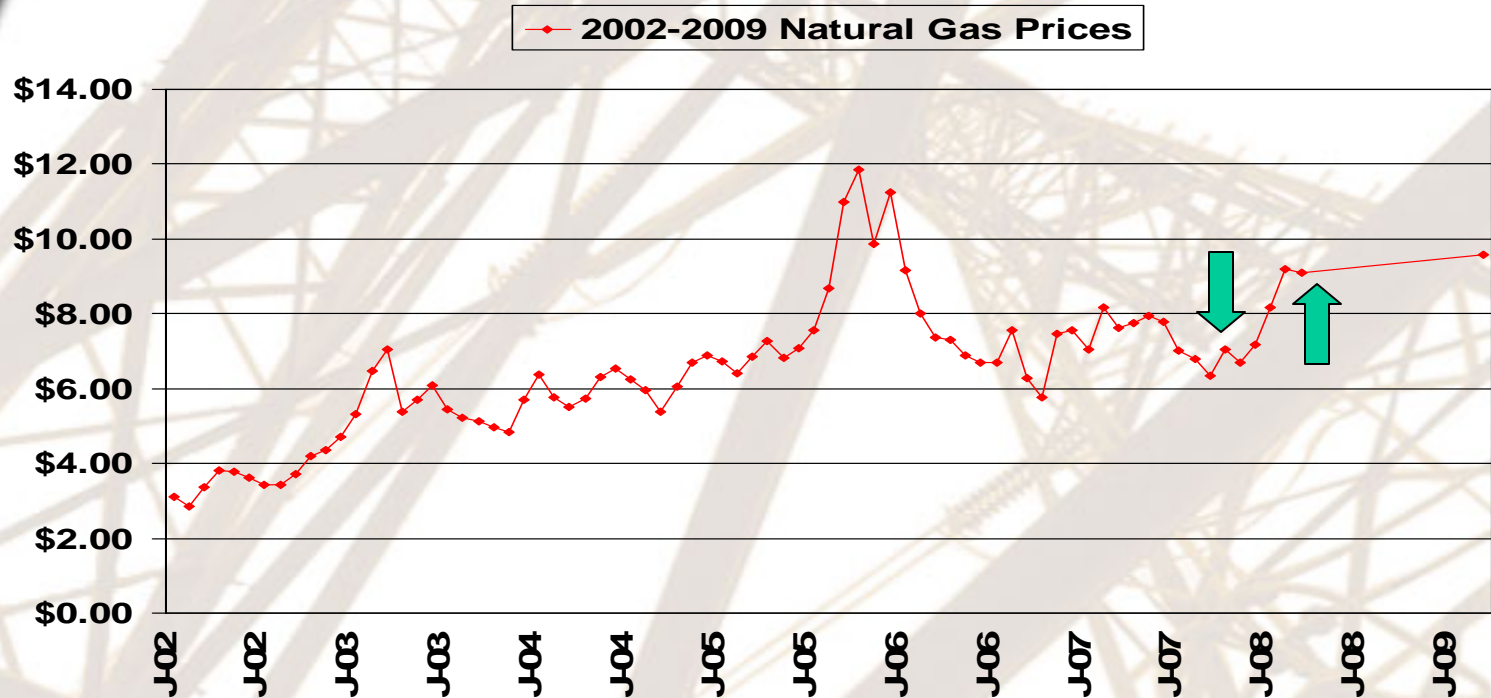
Residential Customers with Competitive REP



Data Source: PUC Report Card on Retail Competition (Sept. 2007)

# Retail Electric Markets

*Up and down with the price of natural gas.*



- Near term increases from December, 07 (\$7.18)

- UP 27% - vs. March 19, 09 (\$9.11)

- UP 33% - vs. NYMEX 12 month strip (\$9.57).

- Source – 1/02 thru 10/07: DOE EIA Electric Power Price, 11/07 thru 3/08: DOE EIA last monthly interval Henry Hub close, 12 month strip: March DOE EIA NYMEX reported.

# Retail Electric Markets

## *Status: Public Power*

- TPPA supports functional retail and wholesale electric markets that are compatible with local control for MOUs and coops.
- MOU and coop rates remain a good value, despite upward pressure on electric costs felt by all providers.
- Public power rates are low due to:
  - Fuel diversity – more coal, wind, and nuclear; a lesser amount of costly and volatile natural gas.
  - Conservative business practices and a consumer orientation.

# Retail Markets

## *Key Issues & Legislative Outlook.*

- Will electricity be a big issue in the 2009 Legislature??  
Key Metrics:
  - Price - of natural gas this summer?
  - Temperature – how hot will it get?
- Interim venues – House Regulated Industries, Senate Business & Commerce, Joint Restructuring Oversight Committee.
- Potential legislative “sub-issues”:
  - Customer-specific concerns, for example 2006-07 legislation seeking a public school discount.
  - Deployment of advanced metering – Houston issue.
  - Enhanced customer protection mandates, for example 2007 legislation on late fees, disconnects, payment dates, etc.
  - Others.

# Topic #2:

## Wholesale Electric Markets

### Status: Recent & Upcoming Changes

- Energy-Only Market - Bid Cap Increased on 3/1/08.
  - Scarcity pricing: infrequent but high prices designed as a price signal to incent new generation investment.
  - Balancing energy market:
    - A small but important part of the overall wholesale market.
    - Cap on bids raised to \$2,250/MWh on March 1<sup>st</sup>. Cap first reached during certain intervals on March 3<sup>rd</sup> (IMM found no evidence of market manipulation).
- New “nodal” wholesale market
  - Planned “go live” in December, 2008.
  - Costs exceeding \$300 million at ERCOT.
  - Nodal fee proposed: 16.9 cents/MWh (up from 12.7 cents) effective 6/1/08 to cease ~ 2012. Uplifted ERCOT-wide.

# Wholesale Markets

## A legislative focus in 2009?

- Uncertainties:
  - Nodal.
  - Price caps.
- Related to the resource adequacy issue.
- Interim venues – House Regulated Industries, Senate Business & Commerce, Joint Restructuring Oversight Committee.



# Issue #3: Resource Adequacy

- Will Texas have enough electricity to meet growing customer demand?
  - Near term.
  - Long term.



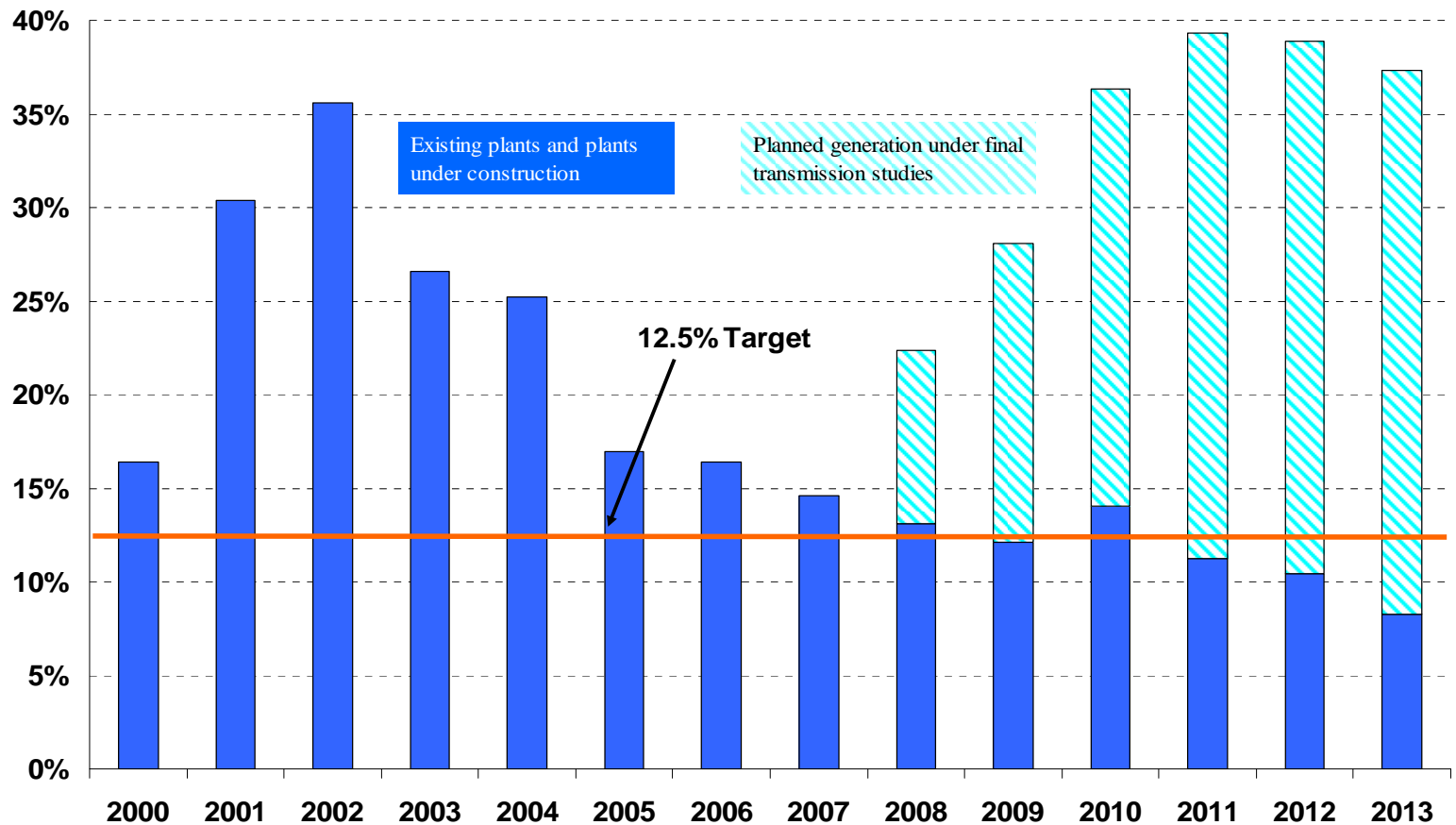
# Near Term.

## Will Reserves Fall Below 12.5%?

*A dynamic answer.*

*Graphic based on December, 2007 CDR.*

**RESERVE MARGINS 2000 - 2013**



# ERCOT's calculation of reserves is conservative by necessity.

	2008	2009	2010	2011	2012	
5/07 CDR	12.6%	10.1%	8.3%	6.7%	5.9%	
12/07 CDR*	13.2%	12.2%	14.1%	12.6%	10.5%	
1/08 House Committee**		13.3%				

*Planned generation not counted until signed transmission interconnection agreement and approved air permit. Next formal ERCOT CDR update: ~ May 15, 2008.*

\*12/07 CRD Increases: Add Sandow 5 (581 MW) and Bosque Expansion (255 MW) to 2009 reserve margin. Add 3 coal units to be complete in 2010 (Spruce – 750 MW and Oak Grove 1&2 – 1710 MW) and one in 2011 (Sandy Creek 1 – 925 MW).

\*\*1/08 Capacity Increase: Add new signed interconnection agreements: Cedar Bayou 4, natural gas, 539 MW, in-service June 2009; South Houston Green Power Expansion Project, natural gas, 244 MW, Galveston County, in-service March 2008.

# Proposed Generation “in the queue” at ERCOT

220 Generation Interconnection Requests, totaling almost 97,000 MW, are currently active and under study. Nearly half of proposed ERCOT generation is wind.

Fuel	Total (MW)
Natural gas	31,644
Nuclear	15,586
Coal	7,549
Wind	41,583
Other	425
<b>Totals</b>	<b>96,787</b>



# 2009 Legislative Action on Resource Adequacy?

- LEGISLATIVE PROCESS LEADING TO 2009 SESSION:
  - New House Select Committee on Generation/Environment.
  - Standing Committees: interim charges on generation/fuel diversity (EURLOC), air permitting (Environmental Reg.), wind as a property right (Land Mgmt.), carbon capture and alternative energy (Energy Resources), etc.
  - Agency Input and Studies – PUC, ERCOT, SECO, Comptroller, etc.
- **CURRENT POLICY DIRECTION: All sources (generation and efficiency) will make a contribution, diversity is key.**
- SIGNIFICANT UNCERTAINTIES:
  - Ability of market to deploy generation that has been proposed.
  - Future revisions in ERCOT reserve projections.
  - National environmental debate. Congress could be considering climate change legislation concurrently with the 2009 Texas Legislature.
- INDIVIDUAL SOURCES: Whether a shortfall is eminent, long term, real, or perceived, each individual resource type will seek an advantage, and potentially be the subject of legislation.

# Potential Legislative Issues for Individual Resources.

- Coal. Revisit the debate on siting, emissions, IGCC?
- Nuclear. Legislative discussions to date have been generally pro-nuclear, future issues might include water use, incentives, others?
- Natural Gas.
  - Diversity is likely to become a more clearly articulated state policy objective, but gas will continue to dominate the fuel mix.
  - New gas generation is second only to wind in the ERCOT “queue”, with >30,000 MW proposed. *“Typically easy to construct, require little lead time, emit less CO<sub>2</sub>, and are generally cheaper to construct than their coal counterparts.”* – NERC on natural gas power plants.
- Wind.
  - Intensified debate on property owners rights and environmental permitting.
  - Continued CREZ concerns including TCOS and access priorities.
  - February 26<sup>th</sup> EECF highlights intermittent nature of the wind resource.
- Other Renewables.
  - General debate on increasing the RPS level?
  - Creating a “non-wind carve-out” emphasizing solar and biomass? Enacting a standardized state-regulated approach to net metering and interconnection?
- Efficiency. Oversight of HB-3693, greater goals and incentives?

# Resource Adequacy

Focus on:  
Renewable Energy and  
Energy Efficiency



# Renewable Energy in Texas: Up 400% since 1999.

- 1999: Passage of SB-7, approximately 880 MWs of renewable generation (hydro).
- 2008: Over 4,500 MWs of renewables.
  - 4,491.8 MWs of wind
  - 67.1 MWs of landfill gas
  - 19.7 MWs of biomass
  - 19.9 MWs of hydro
  - 1.2 MW of solar
- Texas now leads the nation in renewables.



# Public Power

## Wind Energy Deployments

- Local decisions have already made MOUs leaders in the deployment of renewables.
  - MOUs: ~15% of market but over 20% of wind currently deployed.
  - 36 MOUs account for nearly 800 MW of wind, solar, landfill, hydro.
- CPS Energy of San Antonio
  - Locally determined commitment to 15% renewable capacity by 2020.
- Austin Energy
  - Locally determined commitment to 20% renewable capacity by 2020.
- Lower Colorado River Authority
  - 33 MOU & 6 electric cooperative wholesale customers purchase 116 MW of wind generation.
- Others: Wind additions under active consideration.

# Public Power: Retail Renewable Energy Offerings

- Austin Energy “GreenChoice” Program
  - Rate based, zero fuel charge.
  - Award winning, national leader 3 years in a row, largest of ~600 utility green power programs in 34 states.
  - Over 440 million kilowatt-hours with more than 8,200 residential customers and 350 businesses subscribing.
- CPS Energy “Windtricity” Program
  - Customer option to purchase specific blocks of renewable based power.
- Denton’s “Green Sense” renewable energy rate program.
- On-site Solar Programs:
  - Incentive programs like Austin, Bryan, CPS.
  - Recognized net metering policies like Denton and Austin.

*Resource Adequacy:*

# **Focus on Energy Efficiency (EE)**



# Recent EE Activities In Texas

- Legislative Interest and Actions:
  - Texas: Over 30 EE bills introduced 2007 Legislature – bipartisan interest.
  - Texas: Passage of HB-3693 with 37 bipartisan co-sponsors.
  - Federal: Congressional consideration of EE standards.
  - Drivers:
    - Rising prices. Customer interest and expectations for an alternative.
    - Reliability/reserves. In response to shrinking reserve margins.
    - Growing public and business interest in avoiding the negative environmental and economic impacts of Texas metro area air quality.
    - General increase in awareness of environmental issues like climate.
    - General and growing concerns about energy independence / security.
- Recent Electric Utility Industry Actions in Texas:
  - TXU: commitment to spend (and not seek rate recovery) \$200 million on EE above and beyond state mandate.
  - CPS Energy: announcement of \$96 million on EE by 2011.
  - Austin Energy: continued commitment to award-winning EE programs.
  - PUC: Last Wednesday, March 26, 2008 – adopted revised energy efficiency rule applicable in IOU areas of the state.

# EE Ramp-Up: IOUs and End-Users – HB-3693

- IOUs: mandate increases from 10% to 20% (and potentially 30%) of load growth met by EE by 2010.
- Residential and Small Commercial Customers:
  - Sales tax holiday on Energy Star appliances.
  - Updated energy efficiency building codes.
- Institutional Customers:
  - City, county, state, and school buildings have an added annual goal of 5% reduction in energy consumption.
  - Specific EE requirements for state agencies, schools, and colleges
    - energy efficient lighting mandate, Energy Star procurement requirements, etc.
  - Schools encouraged to install solar.

# EE Ramp-up for MOUs

- 9 Largest MOUs Impacted by HB-3693:
  - CPS Energy, Austin Energy, Garland, Bryan, Lubbock, Denton, Brownsville, New Braunfels, College Station
  - >500,000MWh and already subject to PURPA.
- Must add energy efficiency locally and report to the State Energy Conservation Office (SECO) starting in September, 2009.
- TPPA Objectives in HB-3693:
  - Avoid an IOU-style EE mandate with PUC regulation.
  - Retain local control to implement EE.
  - Protect small MOUs.
  - Protect existing local EE programs.



# EE Program Development for MOUs

## Policy and Planning Issues

- **BENCHMARKING:** MOU & other EE programs.
- **IMPLEMENTABILITY:** EE programs based on lead times, costs to implement, expected customer response.
- **FINANCIAL:** Funding. Upward pressure on rates, but downward pressure on bills.
- **RESOURCE ADEQUACY:** Role of EE in a diversified MOU generation/purchased power portfolio.
- **CUSTOMER VALUE:** Value proposition of EE with respect to customer relations.
- **ENVIRONMENTAL:** Impact on local/regional air quality, relationship to developing regulations.
- **PARTNERING:** Leverage resources – SECO.

# Key Outreach Opportunity: Inaugural EE Tax Holiday

## Energy Star Sales Tax Holiday

## Memorial Day Weekend

## May 24-26, 2008

- Approved by Legislature: HB-3693.
- Qualifying Energy Star products include:
  - Air conditioners (central and window units) under \$6,000.
  - Washing machines.
  - Ceiling fans.
  - Dehumidifiers.
  - Light bulbs.
  - Programmable thermostats.
  - Refrigerators under \$2,000.
- More information at:  
[www.window.state.tx.us/taxinfo/taxpubs/tx98\\_836](http://www.window.state.tx.us/taxinfo/taxpubs/tx98_836)



# More Information on Today's Presentation Topics

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2. Wholesale Electric Markets
3. Resource Adequacy

Available at:

[www.tppa.com](http://www.tppa.com)