

Overview: Public & Private Sector Electric Providers. ERCOT Wholesale Market.

**Austin City Council
Electric Utility Oversight Committee
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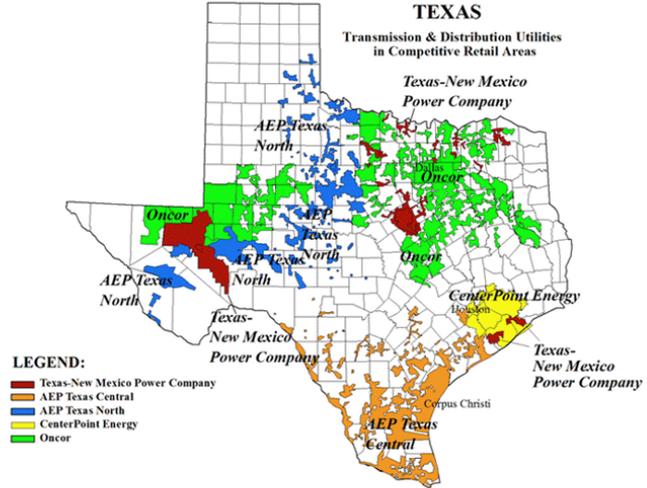
This Presentation

- Austin City Council Resolution No. 20160204-037:
 - *WHEREAS, the City Council wishes to adopt a work plan to review and discuss key components related to the upcoming electric rate adjustment proposal...*
 - *SESSION 1: Overview. Public vs. Private Power. ERCOT Market.*
- Contents - Background and Summary Information.
 1. Major sectors – Texas electric industry.
 2. Public power – key characteristics and performance of municipally owned electric utilities (MOUs).
 3. Public and private electric providers – select comparisons (finance, regulation, ratemaking, rates, renewables).
 4. ERCOT (Electric Reliability Council of Texas) wholesale electric market basics.

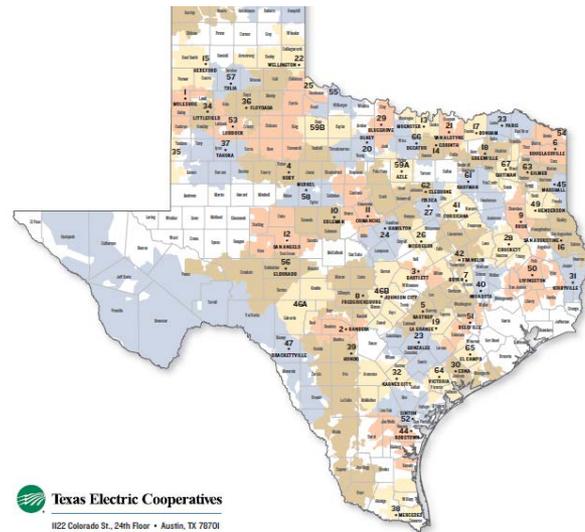
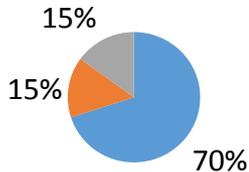
Major Sectors of the Texas Electric Industry



Municipally Owned Electric Utilities (MOUs)



MOUs - ~15% of Texas market.
 Private IOUs/Deregulated - ~70%.
 Electric Cooperatives - ~15%



Public Power – Key Characteristics of MOUs.

- ✓ *72 MOUs provide power to 4.1 million Texans. Many have been serving their communities for well over 50 years.*
- ✓ *Local authorities set MOU rates and policies that are responsive to community priorities.*
- ✓ *MOUs are required to participate in the competitive wholesale market, but have a local option on retail deregulation – to date, none have taken that option.*
- OWNERSHIP: Municipal ownership.
- MISSION: Reasonable rates and community value. Utility policies that are responsive to community priorities.
- **REGULATION:** By local officials accountable to citizen ratepayers with public participation. Limited Public Utility Commission (PUC) regulation.
- **RATEMAKING AND RATES:** Ratesetting via a local process. MOU rates – stable, a good value, generally near parity today with other providers.
- SERVICE QUALITY: Reliable, local, and consumer-friendly.
- **FINANCE:** Funded by utility revenues, not taxes. The financial health of the MOU and the city are inexorably linked.
- UTILITY PROCEEDS: Proceeds stay in the community. A portion of MOU revenues support general municipal services like public safety, roads, parks, libraries, and community services.
- **RENEWABLES:** Statewide leaders based on local priorities.

MOU Performance

- **Customer satisfaction.**
 - MOUs are consumer owned and thus have a consumer orientation. Local employees, not remote call centers, interface with customers. Customers can participate – local processes, public meetings, etc.
- **Reliability.**
 - Industry reliability metrics measuring service interruptions indicate the good performance of MOUs and the Texas wires system in general.
 - Creditworthy MOUs help deploy generation to support reliability.
- **Jobs and Economic Development.**
 - MOUs - significant employers in their communities – over 7,000 employees.
 - MOUs are well situated to support local economic development activities – a consolidated local approach with infrastructure deployment and rate policies that help retain and attract businesses.
- **Bond ratings are among the best in the industry.**
 - Among the industry’s most creditworthy. Rating agencies cite: focus on core mission, stable service areas, affordable rates, local control. “Positive” or “stable” outlooks for MOUs despite the economy. Recent S&P ratings:

Austin Energy	AA-	Garland (GP&L)	AA-
Bryan (BTU)	A+	Greenville (GEUS)	A+
Brownsville PUB	A+	Lubbock (LP&L)	AA-
CPS Energy	AA	New Braunfels	AA
College Station	A+	Seguin	A+
Denton	AA-		

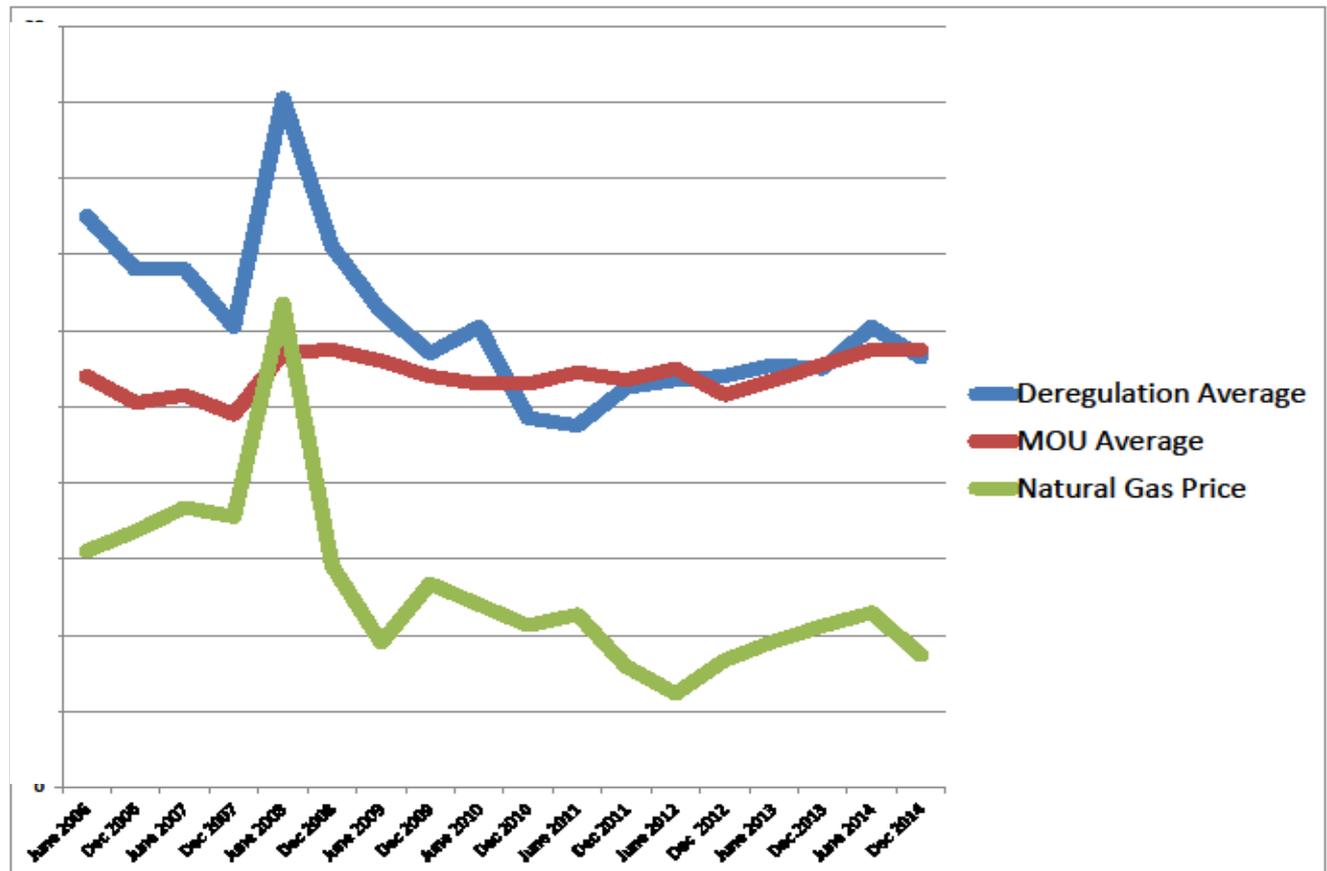
Public and Private Providers: Select Comparisons.

	Public: Municipal Utilities (MOUs)	Private Investor-Owned: (1) Transmission & Distribution Utilities (TDUs) - wires. (2) Retail Electric Providers (REPs) – retail. (3) Power Generation Companies (PGCs) – generation.
Regulation	Locally set rates and policies. PUC jurisdiction limited to: service area boundaries, transmission cost recovery, wholesale market rules, and outside-city rates on appeal.	TDUs – PUC sets wires rates, policies, programs. REPs – prices set based on market. PGCs – prices set based on market.
Finances	City/citizens = owners. MOU and city finances linked. Goals: maximize creditworthiness and community value.	Shareholders = owners. Value/credit linked to stock prices. Goals: maximize shareholder value and equity.
Ratemaking	Local – diverse processes appropriate to specific MOUs. Cost-based by customer classes. Outside city ratepayers can appeal local rate decisions to the PUC. High voltage transmission rates by PUC.	TDUs – distribution wires rates (UCOS) set by the PUC via a formal rate setting process. Rates are cost-based by customer class. REPs and PGCs – prices are set based on market. High voltage transmission rates set by PUC.
Retail Rates & Prices GRAPH FOLLOWS	Set to achieve long term objectives. Fuel diversity – less linked to gas prices, more stable over time. Average, MOU rates near parity with mainstream private providers.	Set based on short term market prices. TDUs – wires rates set by PUC underlie competitive retail offers. REPs – market based prices continue to be closely linked to the price of gas.
Renewables	MOUs have been leaders based on community priorities, fuel diversity goals, and creditworthiness.	PGCs have deployed wind and solar, with significant purchased power agreements from MOUs.

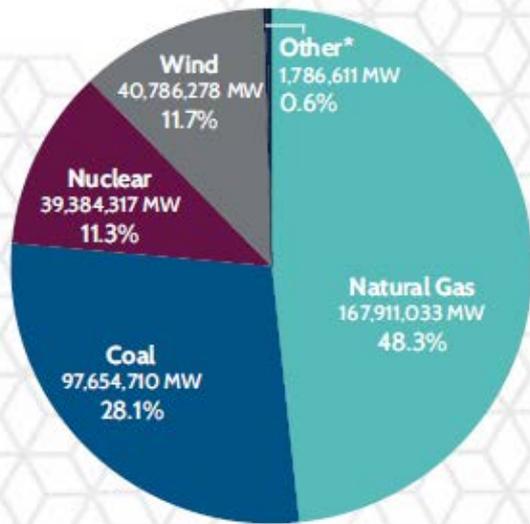
Historic retail rates - fuel-diverse MOUs vs. gas-price-driven deregulated private providers.

- Currently near parity, after recent years of natural gas price declines.
- Private deregulated prices – historically more volatile, track natural gas price.
- MOU rates – historically stable and more predictable due to diverse fuel sources – gas, coal, nuclear, wind, solar.

10 years,
2006 to
2015. 6
month
increments .
1000 kilowatt
(KWh)
residential.
MOU and
REP
average
rates - CH
Guernsey
TPPA rate
survey. Gas
prices –
Henry Hub.

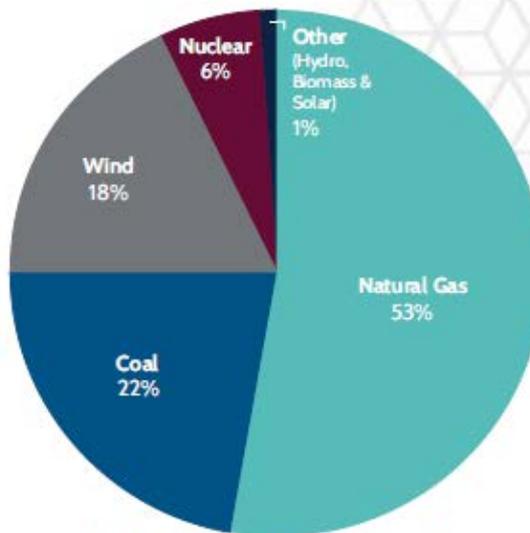


ERCOT Wholesale Market



Energy Use 2015

*Includes solar, hydro, petroleum coke, biomass, landfill gas, and DC Ties



2015 Generation Capacity

(Total Installed Summer Capacity as of December 31, 2015)

- All electric entities, including MOUs participate per statutory requirements, PUC rules, and ERCOT protocols.
- Market includes >77,000 MW of available generation, with peak usage of 69,877 MW in August, 2015.
- Austin Energy is ~4% of the market on a load ratio share basis.

Key Characteristics: ERCOT Wholesale Market

- Fully competitive wholesale market.
- ERCOT balances load (customer demand) and generation (supply).
- Generators bring power plants online when their bids are chosen and/or if ERCOT needs them to run for reliability purposes.
- In the “nodal” market structure, prices paid to generators are locational (Locational Marginal Prices - LMPs).
 - Generators submit offers for output and are chosen by price.
 - ERCOT clears the market every 5 minutes, using generation with the lowest bids to serve load, unless more expensive generation is needed to relieve transmission constraints or meet other reliability criteria.
 - ERCOT’s goal – to serve at nearly the lowest cost while still maintaining reliable electric service throughout the grid.

Summary:

- MOUs like Austin Energy are locally controlled. Local cost-based rates allocated by customer class. Processes are public but diverse.
- MOUs and private-sector electric providers are complimentary parts of the market, but with certain different characteristics.
 - MOU rates set at the local level, private distribution wires rates set by the PUC, and private retail rates priced on the market.
 - MOU and city financial well being - closely linked. Private sector electric providers financial well being linked to shareholder value.
- MOUs must participate in the competitive wholesale market but have a local option to join deregulated retail markets. In the wholesale market, generation is dispatched based on lowest locational cost offers, tempered by reliability criteria.



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