Electricity: What Texas did right, what's left to do

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Competition Everywhere

- Last half 20th Century – Markets v. governments worldwide
- Over 100 nations taking electricity toward markets
- U.S. electricity -- the last of the great deregulations, intrinsically complex
  - Wholesale [bulk power] and Federal Energy Regulatory Commission
  - Retail and state governments

Where Texas stands

- At both retail and wholesale, Texas [ERCOT] the greatest state success story
- Success came from what Texas did and what it did *not* do – compare other states and FERC policy
- Success is
  - Efficient, competitive wholesale markets
  - Benefits of retail markets available to all users
  - Long term predictability of investment climate, freedom to contract
- Non-ERCOT utilities, municipal and cooperative systems beyond my scope today

The mistakes Texas didn’t make

- California:
  - Forces utilities into spot market for all power
  - Retail rate freeze
  - Stranded cost recovery at risk
  - Uncertain investment climate
- Pennsylvania
  - Fixed “shopping credit” or “standard offer”
- Maryland
  - Price ceiling politically difficult to remove

How to measure success

- Real success will only be known as state invests for future
- Short-term rate effects not as important as long-run efficiency
- Wholesale: Prices send better signals, new types of contracts
- Retail: What new options exist – suppliers, rate choices, resources
- Do not use measures of regulation to measure success under competition

FIGURE 3-1
Percentage of Load Served by Non-Affiliated REP, Jan. 2002 -- June 2006

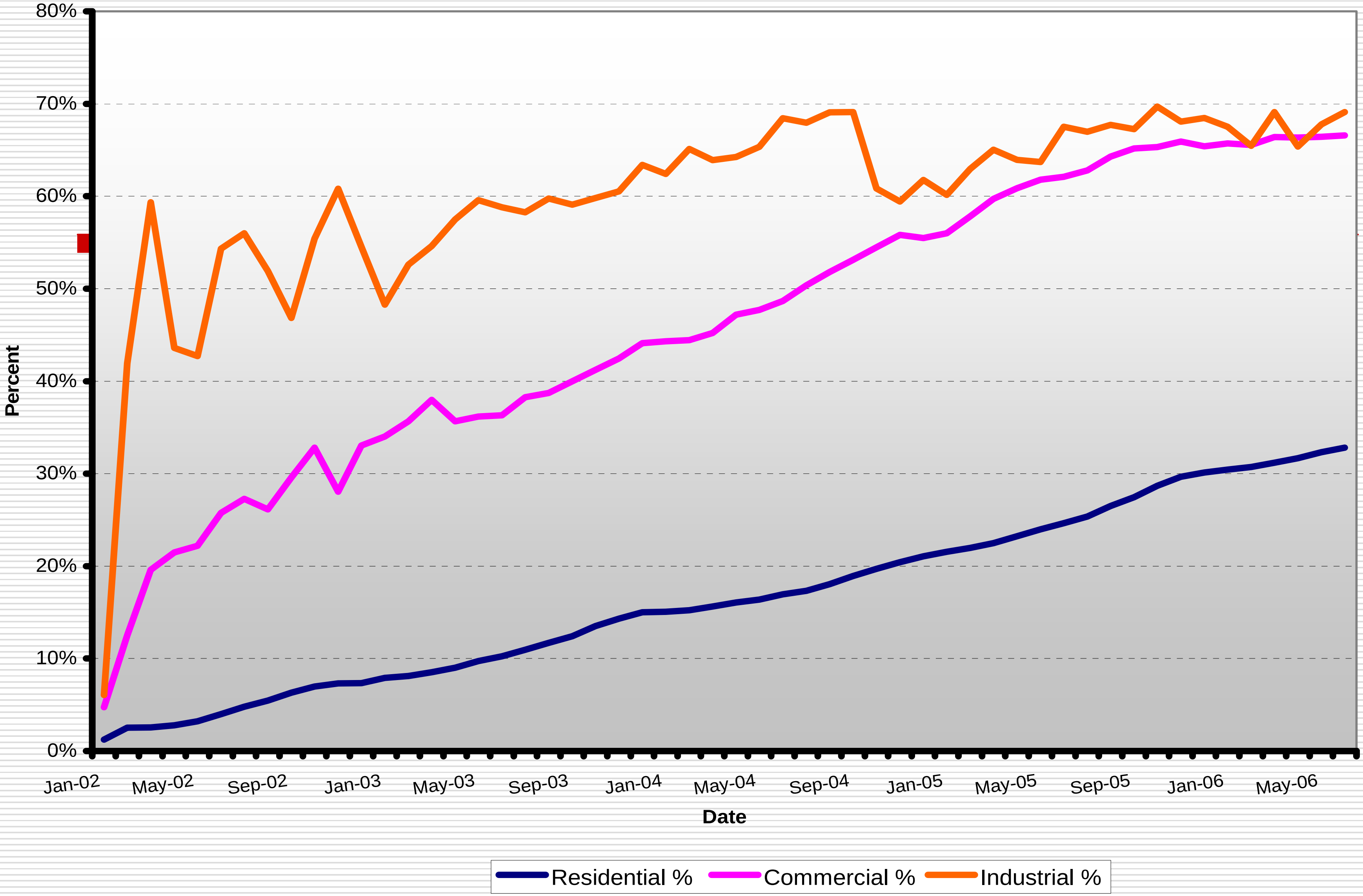
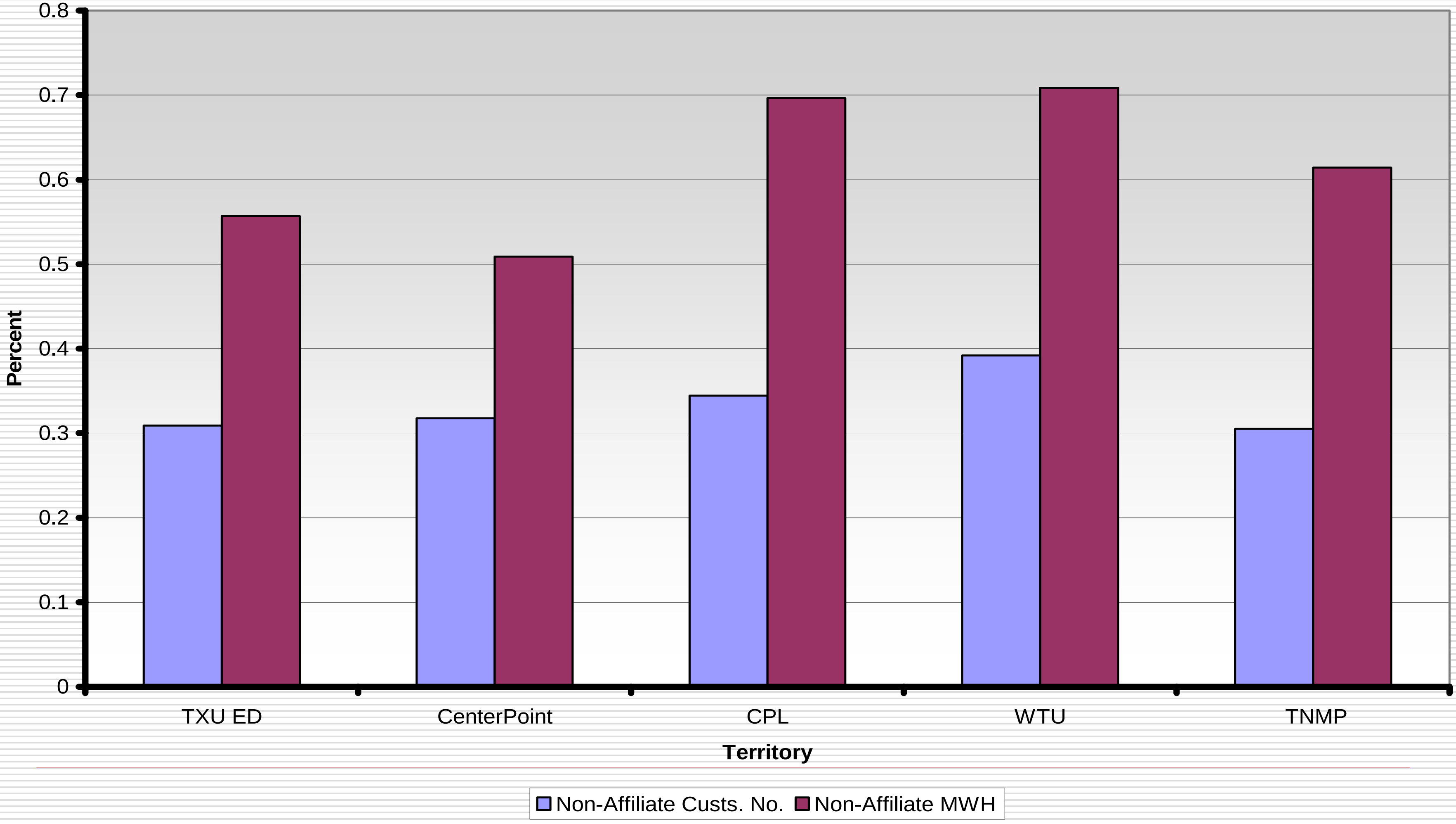


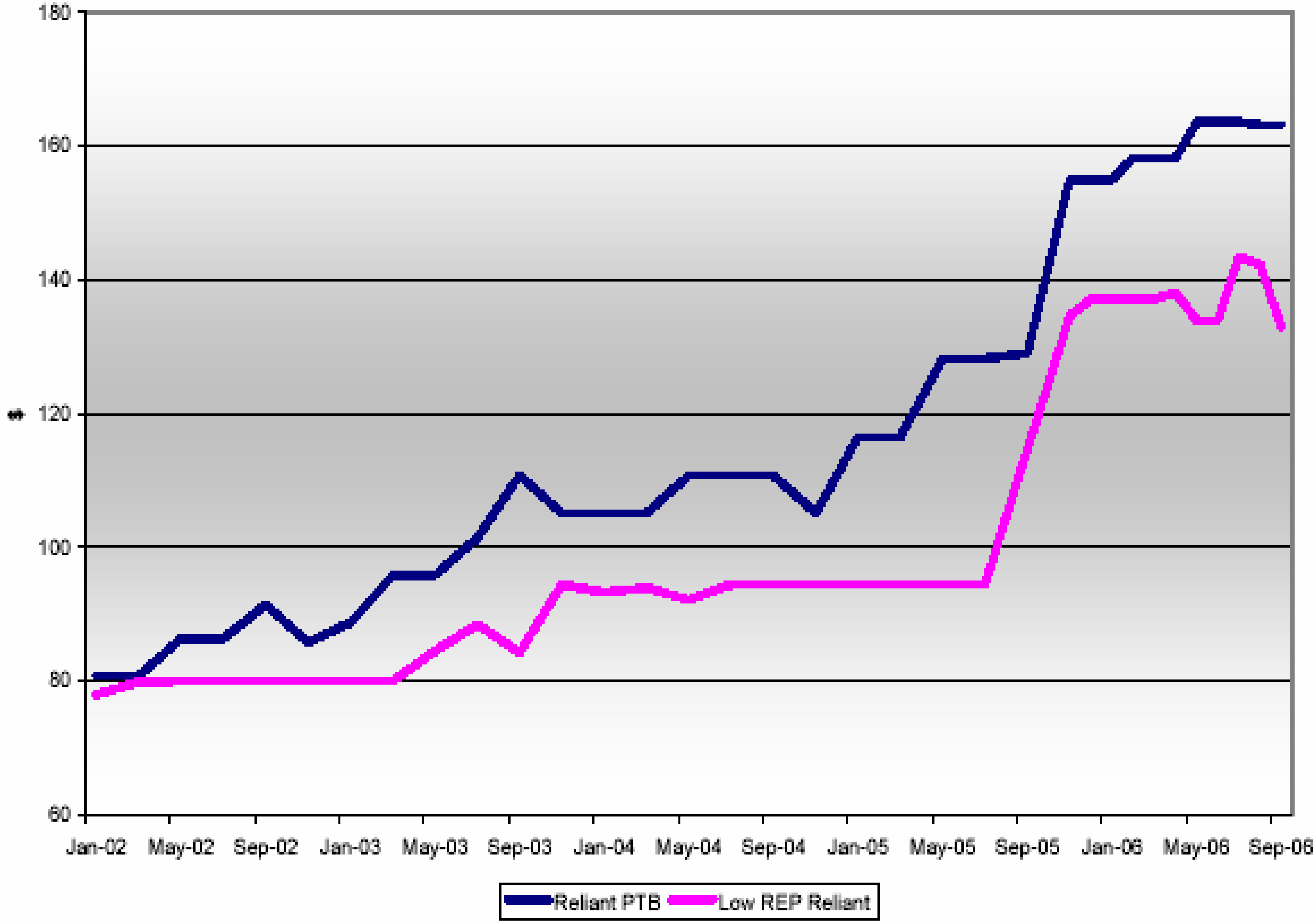
Figure 3-3
Percentages of Territorial Customers and MWH Served by Non-Affiliated REPs, June 2006

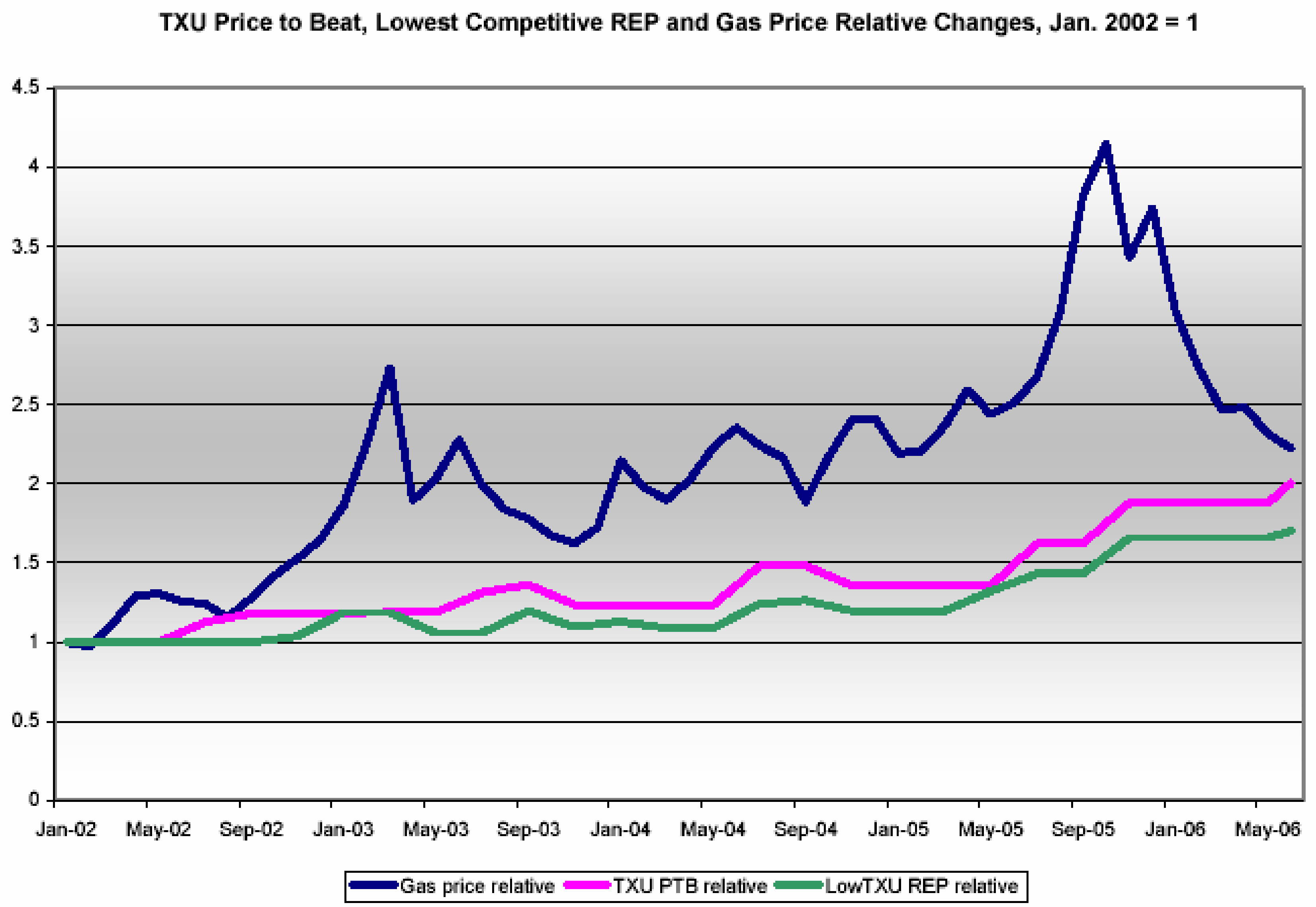


Retail: What happened

- Competitive suppliers started at Price to Beat, immediately went well below
  - New service offerings
- Do (did) prices track gas prices?
  - Down vs. up?
  - Both monopolies and competitive markets pass through costs
  - Consumers value predictability – does bread fluctuate with daily wheat prices?

Reliant Price to Beat and Lowest Available Competitive REP Price





TXU Price to Beat, Lowest Competitive REP and Gas Price Relative Changes, Jan. 2002 = 1
4.5
4
3.5
3
2.5
2
1.5
1
0.5
0
Jan-02
May-02
Sep-02
Jan-03
May-03
Sep-03
Jan-04
May-04
Sep-04
Jan-05
May-05
Sep-05
Jan-06
May-06
Gas price relative
TXU PTB relative
LowTXU REP relative

Retail: What next?

- Price to Beat has fulfilled its function
  - Which customers need a “safety net”?
- Switching statistics – How much is “right”?
  - Is “stickiness” rational?
  - Mandatory customer reassignments?
- Supplier concentration
  - Antitrust standards, ease of entry

Everybody's safety net: markets

- Is there something different about electricity?
  - Immediate price drops don't matter, long-term investment choices do
- Growth in suppliers and end of the PTB
  - Innovative rate designs
  - New service packages
  - New information resources (Houston)
  - Here comes Wal-Mart (?)
    - What happened in groceries

NUMBERS OF PROVIDERS AND PLANS BY TERRITORY, VARIOUS DATES

	Jan '02		Dec. '02		Oct. '04		May '06		Sept. '06	
TERRITORY	Provs.	Plans	Provs.	Plans	Provs.	Plans	Provs.	Plans	Provs.	Plans
AEP Central	2	5	6	7	9	12	15	24	18	35
AEP North	2	5	2	2	6	8	13	22	16	33
CenterPoint	8	12	9	10	10	11	14	26	17	39
TNMP	3	4	4	5	9	10	12	23	17	31
TXU	8	14	9	10	11	13	14	29	16	40

The future of ERCOT markets

- ERCOT markets contract-dominated
  - Balancing and ancillary services 5–10 %
  - Market power in generation?
- 2009 changes will improve efficiency
  - Day-ahead markets and generator commitment
  - Nodal prices as signals re both transmission and generation scarcity
- Renewables and demand response are compatible with competition
  - Not that everything will be easy -- wind

What about the future?

- Will generation be adequate?
  - Projected margins? Mothballs? Energy-only?
- Fuel diversity – who chooses?
- Competition requires predictable institutions that:
  - Facilitate new market relationships
  - Reduce risks of forward-looking investment
- Well-functioning retail markets require well-functioning wholesale markets

Whatever you do, don’t be like us

- Calif. 2001 chaos brought new uneconomic state contracts
- Unpredictability stifles generator investment
  - Parts of Calif. risk blackouts this year
  - Utilities gaming procurement to re-integrate into generation
- Rediscovering Integrated Resource Planning
- The renewable cliff
  - 20% in 2010, 33% in 2020
  - Here comes “smart growth”
- “Cleaner-than-thou” and western markets

In Summary

- Competition has brought substantial benefits to Texas in only a few years
  - In absolute terms and relative to other states
- The ERCOT markets function well
  - 2009 innovations will further improve investment choices and power pricing
- With the end of the PTB, Texas enters a new world of customer-centered competition
  - New suppliers, new rates, new services
- Competition is fully consistent with other government policies re income distribution, environment, etc.
  - Separate these from electrical issues in legislation