Aftershock:
Deregulation and Stranded Cost Recovery

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Outline

- Stranded Cost Background
  - Definition
  - Sources and Mechanisms for Recovery
  - Magnitude
- Stranded Costs in Texas
  - Legislation
  - Activity
- Docket 29526: *Application of CenterPoint Energy Houston Electric, Reliant Energy Retail Services, and Texas Genco, to Determine Stranded Costs and Other True-Up Balances Pursuant to PURA §39.262*

Stranded Costs

- A stranded cost is the decline in the value of an asset as a result of regulatory change

- For electric utilities:
  - "Stranded costs can be defined as the decline in the value of electricity-generating assets due to restructuring of the industry" (Congressional Budget Office)

Stranded Costs

- Operationally:

Accounting Value/
Regulator Value

Economic Value/
Competitive Value

  Book Value
- Market Value
= Stranded Cost

Sources of Stranded Costs

- Elimination of monopoly position
  - Lower prices
  - Lower demand
- Uneconomic Capital
  - "Gold-plating"
  - Intentional overcapitalization
  - Distortion of accounting-oriented metrics over economic metrics

Categories of Stranded Costs

- Unrecoverable costs of generation assets
  - Investment in plants that would not be profitable under a competitive market
- Uneconomic purchased power contracts
  - PURPA contracts
- Regulatory assets
  - SFAS 71: deferred taxes, deferred operating expenses, unamortized debt expenses
- Capitalized investments in social programs mandated by regulators
  - Demand-side management programs, low-income consumer programs
- Employment transition costs
  - Early retirement, job retraining programs

Magnitude of Stranded Costs

- In 1998, estimates of total stranded costs nationwide ranged from $50 billion to $500 billion
  - Oak Ridge National Laboratory: $72-$104 billion, net of taxes
  - RDI: $122 billion
  - Moody's: $136 billion
- Best estimates are probably in the $50-$150 billion range

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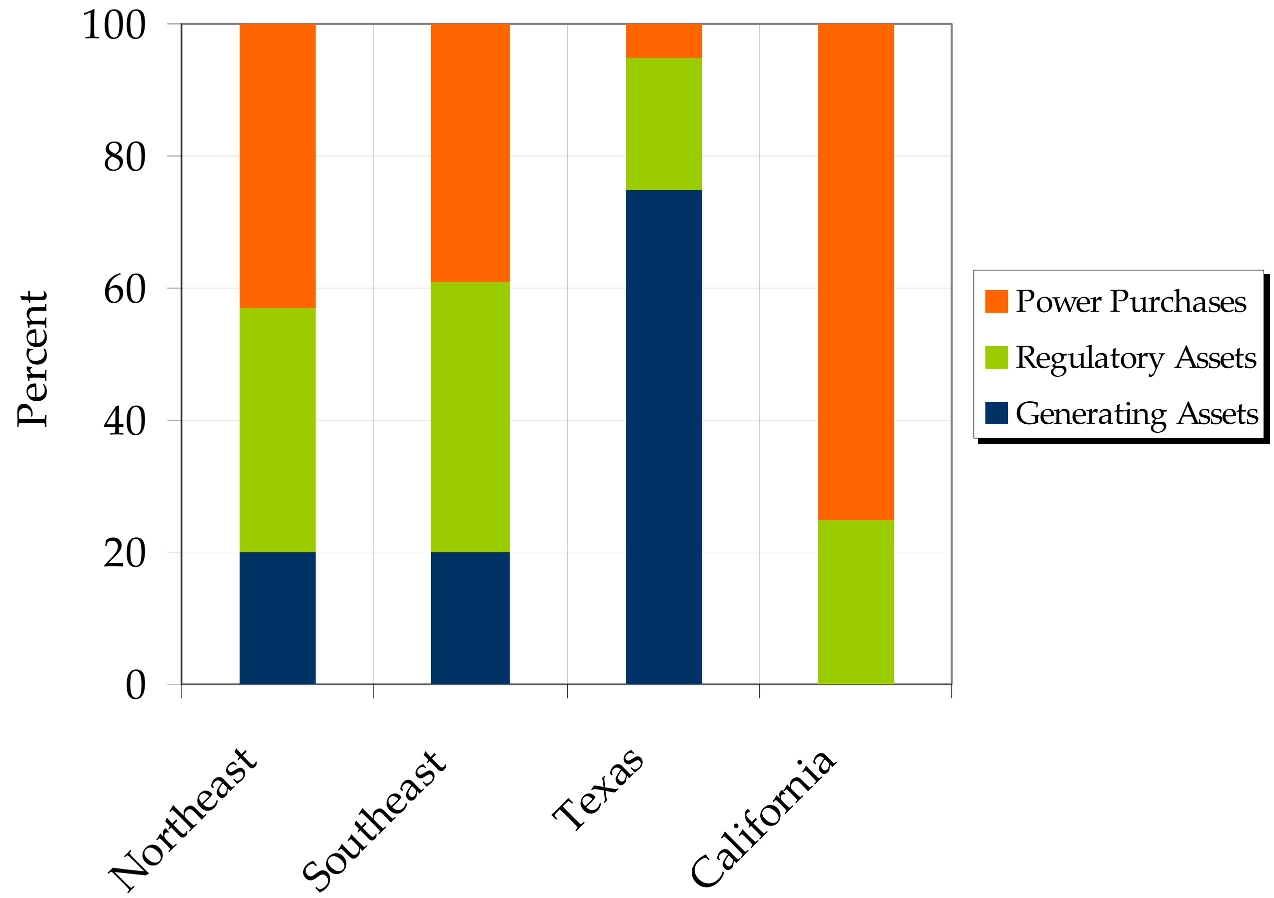
Context for Stranded Cost Magnitude

- Estimated total: $50-$150 billion (CBO)
- About $70 billion of this total is attributable to nuclear assets (DOE-NARUC)
- Stranded costs often represent more than 50% of utilities' equity (EIA-DOE)
  - Example: CenterPoint Energy filed for $4.4 billion
  - Total equity market capitalization was $3 billion (+ debt of $11 billion)
  - Total equity market capitalization of all US utilities is approximately $350 billion
- CenterPoint's request, if granted in full, would amount to ≈$1,000 for each of the company's five million customers

Categories of Stranded Cost by Region



Source: Congressional Budget Office

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Legislative Motivation

- In 1999, the Texas Legislature passed SB 7, which amended the Public Utilities Regulatory Act (PURA) by adding Chapter 39
- Chapter 39 deregulated the Texas electric power market and set 2004 as the date utilities would calculate stranded costs

PURA Mechanisms for Recovery

- §39.252(a): An electric utility is allowed to recover all of its net, verifiable, nonmitigable stranded costs incurred in purchasing power and providing electric generation service.
- §39.252(d): An electric utility shall pursue commercially reasonable means to reduce its potential stranded costs, including good faith attempts to renegotiate above-cost fuel and purchased power contracts or the exercise of normal business practices to protect the value of its assets. The commission shall consider the utility's efforts under this subsection when determining the amount of the utility's stranded costs; provided, however, that nothing in this section authorizes the commission to substitute its judgment for a market valuation of generation assets determined under Sections 39.262(h) and (i).

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Valuation Methods

- §39.262(h): … company shall quantify its stranded costs using one or more of the following methods:
  - Sale of Assets: Total net value from sale establishes market value
  - Stock Valuation: Spin off regulated assets, retains ≤ 49% control; value of spin off establishes market value of assets
  - Partial Stock Valuation (PSVM): Spin off ≥ 19%, but < 51% of regulated assets; value of spin-off plus any control premium establishes market value of assets
  - Exchange of Assets: Conduct an exchange (§1031) transaction; appraised value establishes the market value of assets

Some History

- As of (pre-Enron) 2001, the Texas PUC calculated that CenterPoint actually had *negative* stranded costs of $2.6 billion and ratepayers would receive a rate *reduction*

- During 2001-2004, the power market collapsed and natural gas prices increased substantially

- In 2002, TXU reached a $1.3 billion settlement with the PUC over stranded costs (it had sought $2.8 billion)
- In early 2004, Texas-New Mexico Power sought $357 million and received $137 million (sale-of-assets method)
- On March 31, 2004, CenterPoint Energy (CNP) filed for recovery of $4.4 billion (partial stock valuation method)
- American Electric Power (AEP) is expected to file later this year (and has elected the sale-of-assets method)

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Docket 29526

- SB 7 passed in September 1999, requiring unbundling
- In December 2001, Reliant Houston Light & Power split into three companies
  - REP: Retail Electricity Provider (Reliant)
  - TDU: Transmission & Distribution Utility (CenterPoint)
  - PGC: Power Generation Company (Texas Genco)

Reliant HL&P

REP — TDU — PGC

December 2001

Reliant Resources

CenterPoint Energy

CenterPoint Energy — Texas Genco

January 2003

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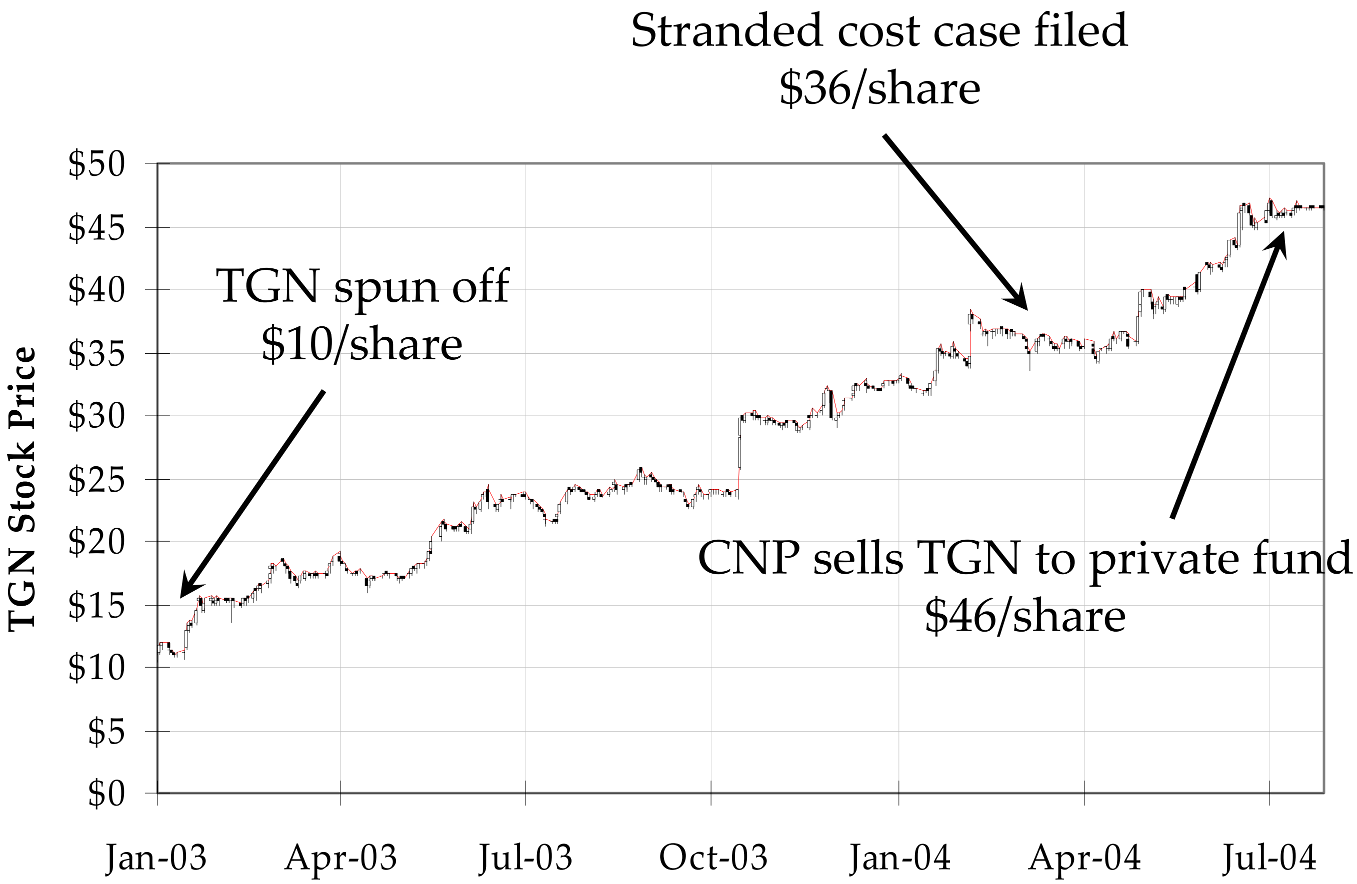
Texas Genco (TGN)

- In January 2003, CenterPoint distributed a 19% stake in TGN to its shareholders as a dividend to satisfy the partial stock valuation approach
  - CNP = Regulated TDU + 81% of TGN + Stranded Costs
- TGN began trading on the NYSE at $10/share
  - CNP's stake is worth about $650 million at this point
- TGN owned all of CNP's generation assets:
  - 9,700 MW of gas-fired capacity
  - 4,000 MW of coal-fired capacity
  - 700 MW of nuclear capacity
  - Most of the gas-fired capacity is mothballed, leaving TGN as a baseload generator in a peaking market…

Exceptional Performance



March '04: True-Up Filing

- On March 31, 2004, CNP submitted a 3,000+ page application for stranded cost recovery with the Texas PUC
- The market value of TGN in early 2004 was a key component of the stranded cost calculation
  - Under PURA, the market value of the spun-off firm *is* the market value of the assets – this becomes very important!

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True-Up Filing

Stranded Costs[5]

Net Book Value of Generation Assets (Excluding All Environmental Costs)		$5,041,921,547	Asset *Book* Value
Environmental Costs	+	717,635,118	
Deferred Debits Related to Discontinuance of SFAS 71	+	25,278,894	
Above Market Purchase Power Costs	+	48,344,475	Purchased Power
Net Mitigation: Excess Earnings Depreciation	-	661,621,340	
Net Mitigation: Excess Earnings Interest	+	180,064,839	
Competitive Transition Charge on GLO Tariff	-	983,531	
Market Value of Generation Assets	-	2,907,694,889	Asset *Market* Value
Stranded Cost Total	=	**$ 2,442,918,446**	

Interest on Stranded Cost $ 630,923,478 Accum. Interest

TDU/APGC True-up Balance – Other items

Final Fuel Balance	$	20,261,546	Essentially all regulatory assets; *very* complicated
Capacity Auction True-up	+	1,356,631,872	
Regulatory Assets	+	150,473,181	
TDU/APGC True-up Balance Total	=	**$ 1,527,366,599**	

TDU/AREP True-up Balance

True-up of Price to Beat Revenues	-	176,657,700
TDU/AREP True-up Balance Total	=	**$ -176,657,700**

$4,424,550,823

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CenterPoint's Case

- We just followed the rules
- Look at TGN's performance!
- We just followed the rules
- Look at TGN's performance!
- ⋮
- To be fair…
  - Numerous mitigation efforts
  - Past PUC decisions exacerbated problem
  - Difficult market environment

Intervenors' Case

- Applicant = CenterPoint
- Intervenors:
  - State of Texas Attorney General's Office
  - Houston Council for Health & Education
  - Texas Industrial Energy Consumers
  - Gulf Coast Coalition of Cities/City of Houston
  - Office of Public Utility Counsel
  - Several other smaller groups
- Major Issues
  - Market value adjustment
  - Regulatory assets adjustment
  - Capacity auction adjustment

Focus of presentation

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The Fine Print

- Although CNP did undertake many mitigation measures, numerous other issues raised questions:
  - TGN and CNP shared almost all major executives and half the board – was it truly independent?
  - CNP *gave* Reliant an option to purchase CNP's 81% stake in early 2004 (they didn't exercise)
  - TGN was prohibited from altering its dividend policy and from using debt – it had *zero* debt
  - TGN was prohibited from building, buying, selling, or retiring any capacity
  - CNP's retained stake gave it total control over TGN's actions – control it exercised to its own benefit to the exclusion of TGN's benefit
- Looking ahead, three proposed adjustments in my testimony:
  - Control Premium: $235 million
  - Capital Structure: $759 million
  - Fleet Restrictions: $47 million

+$376 million in interest

My issues represent $1.4 billion of the $4.4 billion total requested

Order of Events

- March 31: CenterPoint files application
- June 1: Intervenor pre-filed testimony due
- June 4: My deposition
- June 7: Motion to strike testimony
- June 15: Motion to strike denied
- June 18: Texas Supreme Court rules on interest recovery
- June 21: Hearing on the merits begins
- June 24: JP Morgan retained as Control Premium Valuation Panel
- June 30: My testimony before Commission
- July 9: Hearing on merits ends
- July 19: Control premium hearing
- July 21: CenterPoint announces buy-out of TGN for $3.65 billion
- August 6: Control premium panel issues findings
- August 31/September 2: Commission discusses preliminary findings at open meeting (statutory due date)
- October 27: Commission A/B Options Released
- November 10: Draft Order Issued

Legal Questions

- "Commercially Reasonable Means"
  - What does it mean for behavior to be "commercially reasonable"?
  - PURA did not define the term, but the "reasonable man" standard is well-known in law (Harvard College v. Amory, 1830)
    - Reasonable man vs commercially reasonable man
    - *Status quo* vs pursuit of optimum
      - "Affirmative duty to mitigate"
    - The role of risk
  - Traditionally, reasonableness was assessed using a "reasonable utility manager standard" in regulatory proceedings, but the new standard (under deregulation) is very different
  - Conclusion: a commercially reasonable man is a reasonable man engaged in commerce; a businessperson has a fiduciary duty to stockholders to maximize value subject to commercially prudent risk-taking. Thus, maintaining the *status quo* is not enough

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Legal Questions

- Value of Assets or Value of Firm?
  - Stranded costs were intended to allow recovery of impaired asset values
  - CenterPoint argued that issues like capital structure and dividend policy were irrelevant because they had nothing to do with the operation of power generation assets
  - Again, traditional vs new view: PSVM?
- Sale of Stock
  - Was ≥ 19% sold to the public?
  - Is a stock dividend a sale? What *is* a sale?
  - Does a “sale” involve proactive choice?

Issue #1: Control Premium

- Under the PSVM, more than 50% of the spun-off firm is retained
- The control premium recognizes that the difference between 49.9% and 50.1% is more than the value of 0.2%
- PUC *may* convene a valuation panel
- *If* they convene a panel, they *shall* adopt the panel's conclusions with respect to control up to a maximum of 10% of the market value

Issue #1: Control Premium

- Traditional Sources of Control Premium
  - Excessive pay/perquisites
  - Preferential contracting
  - Privileged information
- TGN 2003 Form 10-K
  - "As long as CenterPoint Energy owns a majority of our outstanding common stock, it will continue to be able to elect our entire board of directors, and our public shareholders, by themselves, will not be able to affect the outcome of any shareholder vote."
  - "Although we are not contractually bound by the limitations in CenterPoint Energy's bank facility, it is expected that CenterPoint Energy would likely cause its representatives on our board of directors to direct our business so as not to breach the terms of its facility."

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Issue #1: Control Premium

- Traditional control premium valuation approaches
  - Voting rights (outdated)
  - Merger/takeover premium
- Using the Mergerstat database, same SIC code transactions, net of synergistic benefits, averaged a premium of 30%
- The PUC convened a valuation panel (JP Morgan) to decide the issue
- To everyone’s surprise, JP Morgan decided to ignore everyone and conduct their own analysis
  - Control Premium = JPM Value – True-Up Value

Issue #1: Control Premium

- JP Morgan conducted a traditional DCF analysis of TGN and arrived at a value of $42.425/share (greater than the 10% cap)
- However, they note that their "control premium" increased from -0.5% to 17.0% as a result of using a more recent natural gas forward curve
  - "…and this affects control how?"
- Issue is ripe for appeal by virtually every party…and the cost of this little diversion?

Issue #2: Fleet Restrictions

- It is very tempting to believe *a priori* that this issue would be the most substantial
- TGN mothballed 3,400 MW of capacity – almost all of which would never be economic to operate
- Instead of retiring these units, selling (even for scrap) and re-deploying capital, they are paying millions of dollars a year to keep these plants in long-term storage
- This turned out to be the smallest adjustment, however ($47MM)
- Conservatively, I chose not to speculate about what TGN *could have* bought – a strategic choice, not necessarily a reasonable choice

Issue #3: Capital Structure

- TGN could not:
  - Use any debt (and it was created with none)
  - Change its dividend by > 10%/year
- The imposition of these restrictions, together with the fleet restrictions, constituted commercially unreasonable behavior that reduced the market value of the firm

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Issue #3: Capital Structure

- Some leverage is good
- How do firms create value for their shareholders?
  - Pay out profits → No dividend changes
  - Reinvest → No capacity changes
  - Borrow & Grow → Can't borrow
  - Repurchase stock → Can't recapitalize
- Suppose TGN is successful; five years out, what does the company look like?
- One gets the impression that TGN was not created for the long-term…

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Issue #3: Capital Structure

- Stockpiling Cash
  - TGN can't distribute excess cash
  - TGN can't reinvest excess cash
  - Holding cash is unproductive
  - TGN is almost fully hedged against commodity risks for the next several years
- This is not a recipe for long-term success as a competitive business!
- Basic finance: When you have a stable cash flow, it shouldn't be financed with expensive equity
- I suggested that TGN should borrow $1.25 billion to finance a special dividend (leveraged recapitalization)

Conspiracy Theory

- For the purposes of the true-up, CNP wants to project a negative image of TGN as having little value
- For the purposes of selling its stake in TGN, CNP wants to project a positive image of TGN as having significant value
- How to reconcile these points?
- One question to answer: why would CenterPoint do anything that would impair TGN's value, since it's the majority owner?
  - Permanent vs temporary impairment
  - Generation asset vs regulatory asset
  - Having their cake and eating it too
- My wondering becomes the "conspiracy theory" and CenterPoint's chairman is "angry" and "disappointed"

The Market Value of TGN

- Perhaps the best metric of TGN's market value is its sale price
- On July 21, CenterPoint announced the sale of Texas Genco to a private investment fund for $3.65 billion in a complicated transaction
- The ultimate transaction was financed heavily with debt (about $2 billion)
- The increase in TGN's share price was roughly $10/share ($36 → $46), which is roughly equivalent ($759 vs $800 million) to the value adjustment I proposed for capital structure
- This really caught the attention of the Commissioners (although the parties to the proceeding had been confidentially aware of the pending buyout for a while)
  - As a practical matter, the transaction was very informative
  - As a legal matter, it wasn't clear what influence it *could* have

Resolution

- On September 21st, CenterPoint filed an 8-K indicating that it believed the PUC would act to reduce its request (excl. interest) by $2 billion
  - Company advises that it will take a $1 billion charge to Q3 earnings
  - CenterPoint may be downgraded to junk
- On November 10th, the Commission issued their Draft Order concluding that:
  - CNP failed to comply with rules covering capacity auctions
  - The distribution of shares did not meet the requirements of PURA, therefore CNP was not entitled to use the PSVM
  - Portions of the requested recovery of regulatory assets should be disallowed
  - Market value suppression (the restrictions were not *individually* unreasonable, but were *collectively* unreasonable)
- As a result, CenterPoint's request was cut to $1.97 - $2.30 billion (PUCT Options A and B) from its original $4.4 billion

Commission Findings

	Applicants	Option A	Option B
Net Book Value	$ 5,350,640,002	$ 5,350,640,002	$ 5,350,640,002
Adjustments: EDIT	$ -	$ (30,531,574)	$ (30,531,574)
Adjustments: ITC	$ -	$ (115,574,955)	$ (115,574,955)
Adjustments: EMC Interest	$ -	$ (180,064,839)	$ (180,064,839)
Adjustments: RRI Option	$ -	$ -	$ (330,314,000)
Tax Gross-Up of Com. Unreasonable Actions	$ -	$ -	$ (177,874,089)
Net Book Value	$ 5,350,640,002	$ 5,024,468,634	$ 4,516,280,545
Market Value	$ 2,907,721,556	$ 3,417,428,222	$ 2,924,254,889
Control Premium	$ -	$ -	$ 234,964,800
Stranded Cost	$ 2,442,918,446	$ 1,607,040,412	$ 1,357,060,856
Recovery of Stranded Cost by Capacity Auction	$ -	$ (378,421,000)	$ (378,421,000)
Net, Verifiable, Non-mitigable Stranded Cost	$ 2,442,918,446	$ 1,228,619,412	$ 978,639,856
Interest on Stranded Costs	$ 524,500,000	$ 120,572,051	$ 39,764,924
Total Stranded Cost + Interest	$ 2,967,418,446	$ 1,349,191,463	$ 1,018,404,780
Final Fuel Balance	$ (75,252,748)	$ (75,252,748)	$ (75,252,748)
Capacity Auction True-Up	$ 1,356,631,872	$ 916,887,654	$ 916,887,654
Regulatory Assets	$ 150,473,181	$ 150,473,181	$ 150,473,181
Time Value on True-Up	$ -	$ 167,944,517	$ 167,944,517
Total Non-Stranded Cost	$ 1,431,852,305	$ 1,160,052,604	$ 1,160,052,604
TDU-AREP True-Up Balance	$ (176,599,650)	$ (176,599,650)	$ (176,599,650)
Net True-Up Balance	**$ 4,222,671,101**	**$ 2,332,644,417**	**$ 2,001,857,734**

Source: CenterPoint Energy 8-K, Texas PUC Policy Development Division

Anticipated Timeline

- November 2004: PUC order
- Late 2004: File for PUC rehearing
- Late 2004: File for financing (securitization) order
- End 2004: Order on rehearing, appeal PUC ruling to state courts
- Early 2005: PUC Financing Order
- Mid 2005: Securitization
- 2005-2007: Results of state appeal, additional securitizations based on appeal results (if applicable)

Source: CenterPoint Energy 8-K

On Being an Expert Witness

- Summary
  - 1/3 Interesting
  - 1/3 Boring
  - 1/3 Exasperating
- Daubert: Science and the Law
  - Communicating scientific ideas to non-scientists
  - Pedigree vs "Truth"

On Being an Expert Witness

- Rule #1: Keep your mouth shut!

- People with scientific backgrounds tend to find this very difficult; our natural instinct is to try and explain things and – sometimes – to speculate
- Opposing counsel is <u>not</u> actually interested in the facts
- There is virtually nothing you can say to opposing counsel that will help your case
- Never forget that *you* are the expert, not the attorneys

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On Being an Expert Witness

- How you say it is often more important than what you say
- Don't go all out on a scientifically impressive analysis – concentrate on communicating simple ideas in a clear and memorable way
- Know the literature! Misquoting/ mischaracterization/taking things out of context is a common strategy
  - Avoid nuance
- Maintain some emotional distance, because things will never go 100% in your direction and you will almost certainly witness utter stupidity at some point in every proceeding