

## 2005 ERCOT Budget Consolidated

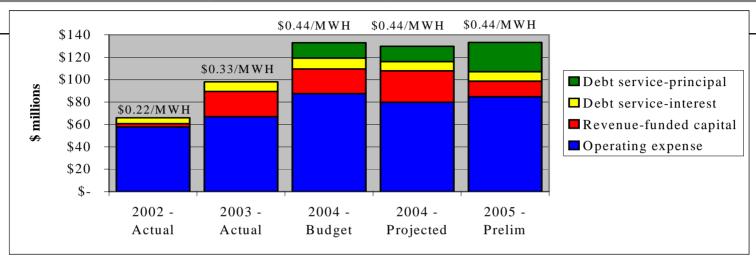
Board of Directors October 19, 2004

## Agenda

- Proposed System Administration Fee
- F&A Decision Items
  - Debt borrowing level
  - Capital expenditure level
  - Staffing level
- Overview of ERCOT
  - Key objectives
  - Organization chart
  - Major project initiatives
- Review proposed 2005 budget
  - Summary schedules
  - Detail schedules by expense type



### ERCOT - Revenue Requirement Summary



	2002 -	2003 -	2004 -	2004 -	2005 -
	Actual	Actual	Budget	Projected	Prelim
Operating expense	57.7	67.0	87.5	79.7	84.7
Revenue-funded capital	3.0	22.5	22.0	28.2	14.0
Debt service-interest	5.3	8.5	9.8	8.3	8.4
Debt service-principal	0.0	0.0	13.6	13.6	26.1
Total revenue requirment	66.0	98.0	133.0	129.9	133.2
MWH	280	285	294	288	296
System Administration Fee	\$ 0.22	\$ 0.33	\$ 0.44	\$ 0.44	\$ 0.44
Debt Outstanding	150.0	150.0	194.4	176.4	171.3

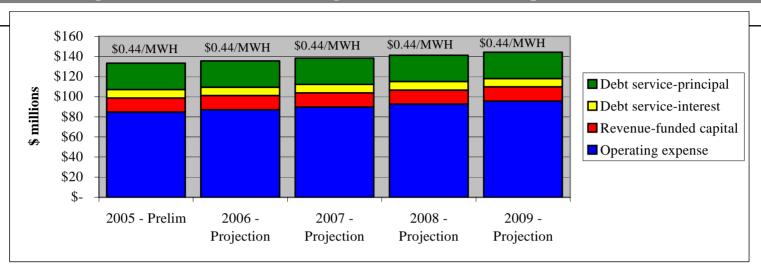


# Key Projection Assumption – Base Case

- No increase in staffing during the period 2006-2009. Productivity gains are assumed to offset any identified new staffing need.
- Forecast does not anticipate significant changes to the current Texas electric market.
- Forecast does not incorporate resources necessary for implementation of the Texas Nodal market.
- Forecast does not incorporate resources necessary for an increased market monitoring role for ERCOT.
- Forecast assumes that ERCOT is not subject to significant additional regulatory oversight. Forecast assumes annual capital investment of \$35 million is sufficient for new projects and periodic system maintenance, upgrade, and replacement.



**ERCOT - Revenue Requirement and System Administration Fee Forecast (2005-2009)** (Excluding estimate for Market Oversight and Texas Nodal Implementation)



		2006 -	2007 -	2008 -	2009 -
	<b>2005 - Prelim</b>	Projection	Projection	Projection	Projection
Operating expense	84.7	87.1	89.8	92.7	95.7
Revenue-funded capital	14.0	14.0	14.0	14.0	14.0
Debt service-interest	8.4	8.4	8.4	8.4	8.4
Debt service-principal	26.1	26.1	26.1	26.1	26.1
Market Oversight	0.0	0.0	0.0	0.0	0.0
Texas Nodal Implementation	0.0	0.0	0.0	0.0	0.0
Total revenue requirment	133.2	135.6	138.3	141.2	144.3
MWH	296	303	311	318	326
System Administration Fee	\$ 0.44	\$ 0.44	\$ 0.44	\$ 0.44	\$ 0.44
Debt Outstanding	171.3	166.1	161.0	155.9	150.7



### ERCOT - Revenue Requirement and System Administration Fee Forecast (2005-2009)

	udget Y 2005	ojection Y 2006	ojection Y 2007	ojection Y 2008	rojection FY 2009	Comment
ERCOT O&M Expense						
Labor & Benefits	\$ 56.8	\$ 60.6	\$ 63.6	\$ 66.8	\$ 70.1	\$0.9 million in 2006 plus annual 5% increase of salary and benefits
Contra-Labor to Capital Projects	(4.9)	(5.2)	(5.5)	(5.8)	(6.0)	Proportion of labor as budgeted in 2005
Tools, Equipment, &Supplies	1.6	1.6	1.7	1.7	1.8	3% inflation per year
Hardware & Software Expenses	7.2	7.2	7.2	7.2	7.2	Hold flat
Outside Services	8.9	8.5	8.1	7.7	7.3	5% reduction per year
Special Audits	1.0	-	-	-	-	Performed in-house after 2005
Utilities, Maintenance & Facilities	6.6	6.8	7.0	7.2	7.4	3% inflation per year
Employee Expenses	1.6	1.7	1.7	1.8	1.8	3% inflation per year
Insurance	1.9	2.0	2.1	2.2	2.3	5% inflation per year
Property Taxes	1.5	1.6	1.6	1.7	1.8	5% inflation per year
Other	2.5	2.4	2.2	2.1	2.0	5% reduction per year
Subtotal	84.7	87.1	89.8	92.7	95.7	
Debt service - interest expense	8.4	8.4	8.4	8.4	8.4	Hold flat. Debt level down a net \$5 million per year. Interest rates rising.
Debt service - principal payments	26.1	26.1	26.1	26.1	26.1	\$13.3 million plus \$12.5 million
Revenue-funded capital	14.0	14.0	14.0	14.0	14.0	40% of \$35 million annual capital
						program
Extra Revenue-funded Capital	_	_	_	_	_	Use of favorable spending variance
Total Revenue Requirement	133.2	135.6	138.3	141.2	144.3	
Less Other Revenue & Interest Income	2.3	2.3	2.3	2.3	2.3	Hold flat
Revenue Rqmt from System Admin Fee	\$ 130.9	\$ 133.3	\$ 136.0	\$ 138.9	\$ 142.0	•
GWH	295.6	303.0	310.6	318.4	326.3	2.5% growth per year
ERCOT System Administration Fee	\$ 0.44	\$ 0.44	\$ 0.44	\$ 0.44	\$ 0.44	
Debt Outstanding at Year-end	\$ 171.3	\$ 166.1	\$ 161.0	\$ 155.9	\$ 150.7	

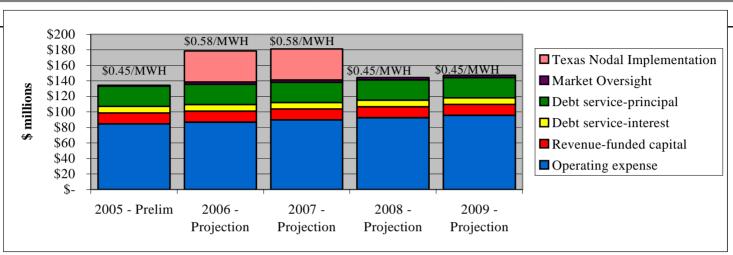


# Key Projection Assumption – Texas Nodal

- No increase in staffing during the period 2006-2009. Productivity gains are assumed to offset any identified new staffing need.
- Forecast assumes that ERCOT is not subject to significant additional regulatory oversight.
- Forecast assumes annual capital investment of \$35 million is sufficient for new projects and periodic system maintenance, upgrade, and replacement.
- Texas Nodal implementation cost assumed as \$0.5 million in 2005 and \$40 million per year for 2006 and 2007. All implementation costs assumed recovered in the year spent.
- Incremental market monitoring cost assumed as \$0.7 million in 2005 and \$3 million per year thereafter. All market monitoring costs assumed operating costs expensed as incurred.



ERCOT - Revenue Requirement and System Administration Fee Forecast (2005-2009) (Including estimate for Market Oversight and Texas Nodal Implementation)



		2006 -	2007 -	2008 -	2009 -
	2005 - Prelim	Projection	Projection	Projection	Projection
Operating expense	84.7	87.1	89.8	92.7	95.7
Revenue-funded capital	14.0	14.0	14.0	14.0	14.0
Debt service-interest	8.4	8.4	8.4	8.4	8.4
Debt service-principal	26.1	26.1	26.1	26.1	26.1
Market Oversight	0.8	3.0	3.0	3.0	3.0
Texas Nodal Implementation	0.5	40.0	40.0	0.0	0.0
Total revenue requirment	134.5	178.6	181.3	144.2	147.3
MWH	296	303	311	318	326
System Administration Fee	\$ 0.45	\$ 0.58	\$ 0.58	\$ 0.45	\$ 0.44
Debt Outstanding	171.3	166.1	161.0	155.9	150.7

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ERCOT - Revenue Requirement and System Administration Fee Forecast (2005-2009)

	udget Y 2005		ojection Y 2006	rojection Y 2007	rojection FY 2008	ojection Y 2009	Comment
ERCOT O&M Expense							
Labor & Benefits	\$ 56.8	\$	60.6	\$ 63.6	\$ 66.8	\$ 70.1	\$0.9 million in 2006 plus annual 5% increase of salary and benefits
Contra-Labor to Capital Projects	(4.9)	)	(5.2)	(5.5)	(5.8)	(6.0)	Proportion of labor as budgeted in 2005
Tools, Equipment, & Supplies	1.6		1.6	1.7	1.7		3% inflation per year
Hardware & Software Expenses	7.2		7.2	7.2	7.2	7.2	Hold flat
Outside Services	8.9		8.5	8.1	7.7	7.3	5% reduction per year
Special Audits	1.0		-	-	-	-	Performed in-house after 2005
Utilities, Maintenance & Facilities	6.6		6.8	7.0	7.2	7.4	3% inflation per year
Employee Expenses	1.6		1.7	1.7	1.8	1.8	3% inflation per year
Insurance	1.9		2.0	2.1	2.2	2.3	5% inflation per year
Property Taxes	1.5		1.6	1.6	1.7	1.8	5% inflation per year
Other	2.5		2.4	2.2	2.1	2.0	5% reduction per year
Subtotal	84.7		87.1	89.8	92.7	95.7	
Debt service - interest expense	8.4		8.4	8.4	8.4	8.4	Hold flat. Debt level down a net \$5 million per year. Interest rates rising.
Debt service - principal payments	26.1		26.1	26.1	26.1	26.1	\$13.3 million plus \$12.5 million
Revenue-funded capital	14.0		14.0	14.0	14.0	14.0	40% of \$35 million annual capital program
Extra Revenue-funded Capital	_		-	-	-	-	Use of favorable spending variance
Total Revenue Requirement	133.2		135.6	138.3	141.2	144.3	
Less Other Revenue & Interest Income	2.3		2.3	2.3	2.3	2.3	Hold flat
Plus:							
Market Oversight	0.8		3.0	3.0	3.0	3.0	\$3 million per year beginning 10/2005
Texas Nodal Implementation	0.5		40.0	40.0			\$80.5 million total implementation cost
Revenue Rqmt from System Admin Fee	\$ 132.2	\$	176.3	\$ 179.0	\$ 141.9	\$ 145.0	
GWH	295.6		303.0	310.6	318.4	326.3	2.5% growth per year
ERCOT System Administration Fee	\$ 0.45	\$	0.58	\$ 0.58	\$ 0.45	\$ 0.44	
Debt Outstanding at Year-end	\$ 171.3	\$	166.1	\$ 161.0	\$ 155.9	\$ 150.7	



## Potential Impact on Users of Electricity

- Average Residential Impact (assuming pass through of System Administrative Fee)
  - Typical household uses approx. 1,000 Kwh / month (or 1 Mwh)
  - Approx. 2004 monthly "ERCOT expense" of average residential consumer is \$0.44
  - Approx. annual "ERCOT expense" for average residential consumer is \$5.28 for 2004



## Administrative Fee Sensitivity

- \$0.01 of Administrative Fee equals:
  - \$3 million of operating expense
    - \$3 million / 297,000,000 MWH = \$0.01 / MWH
  - \$7.5 million of capital spending
    - 60% leverage (40% equity funding \* \$7.5 million = \$3 million)
  - 6.8 GWH
    - 2.3 percent deviation from MWH expected
    - Calculations (\$3 million / \$0.44 per MWH = 6.8 GWH.
       6.8 GWH / 297 GWH = 2.3%)



### ERCOT - Revenue Requirement Sensitivity to Debt Leverage

Assumed Capital Investment	\$	35	\$ 35	\$ 35	\$ 35	\$ 35
Debt funding of Capital		60%	50%	40%	30%	0%
Revenue funding of Capital		40%	50%	60%	70%	100%
		•••				
	4	2005 -	2005 -	2005 -	2005 -	2005 -
	I	Prelim	Prelim	Prelim	Prelim	Prelim
Operating expense		84.7	84.7	84.7	84.7	84.7
Revenue-funded capital		14.0	17.5	21.0	24.5	35.0
Debt service-interest		8.4	8.4	8.4	8.4	8.4
Debt service-principal		26.1	26.1	26.1	26.1	26.1
Market Oversight		0.0	0.0	0.0	0.0	0.0
Texas Nodal Implementation		0.0	0.0	0.0	0.0	0.0
Total revenue requirment		133.2	136.7	140.2	143.7	154.2
Less Interest Income and Other Revenue		2.3	2.3	2.3	2.3	2.3
Revenue to be Recovered from Admin Fee		130.9	134.4	137.9	141.4	151.9
GWH		295.6	295.6	295.6	295.6	295.6
System Administration Fee	\$	0.44	\$ 0.45	\$ 0.47	\$ 0.48	\$ 0.51



## ERCOT - Impact of Using Favorable 2004 Variance to Reduce Borrowing

_	Actual 12/31/02	Actual 12/31/03	Budget 12/31/04	Forecast 12/31/04	Proposed 12/31/05
Debt Outstanding	150.0	150.0	194.4	176.4	171.3
Interest expense Principal payment	5.3	8.5	9.8 13.6	8.3 13.6	8.4 26.1
Total	5.3	8.5	23.4	21.9	34.5
Cash interest paid	6.2	9.4	11.0	9.5	9.8

• \$18 million less debt incurred in 2004 than budgeted



### ERCOT - Impact of Using Favorable 2004 Variance to Reduce Borrowing

	2004	2005	2006	2007	2008	2009	Total
Debt @ 12/31/2004 - Budgted	194.4						
Debt @ 12/31/2004 - Forecast	176.4						
Debt Avoided Due to Use of	18.0						
Favorable Variance in 2004							
Debt Avoided - Assuming a five		14.40	10.80	7.20	3.60	-	
year amortization							
Average Debt Avoided	9.0	16.2	12.6	9	5.4	1.8	
Assumed Annual Interest Rate	3.50%	3.50%	4.00%	4.50%	5.00%	5.00%	
Avoided Interest Cost	0.32	0.57	0.50	0.41	0.27	0.09	2.15
System Administration Fee	0.0011	0.0019	0.0017	0.0014	0.0009	0.0003	
Impact							

• \$2.15 million dollar cost savings over five years



# **Summary Statistics**

(\$000s except Admin Fee)	2001 Actual	2002 Actual	2003 Actual	2004 Forecast	2005 Budgeted (Proposed)
Administrative Fee	\$0.22	\$0.22	\$0.33	\$0.44	\$0.44
Revenue Rqmts	\$65,835	\$66,295	\$98,000	\$130,256	\$134,316
Capital Investment	\$76,881	\$44,833	\$57,148	\$45,000	\$35,000
Debt Outstanding	\$95,000	\$150,000	\$150,000	\$176,400	\$171,263
MWH Load	270,556	279,604	285,028	289,061	296,288
ERCOT Staffing	267	296	380	525	582





# Review 2005 Budget

## Overview of ERCOT

## **ERCOT Organization Chart**

#### **ERCOT**

(2004 FTE Approved = 530)(2004 FTE Projected = 525) (2005 FTE Proposed = 582)

#### Corporate Administration

(2004 FTE Approved = 63)(2004 FTE Projected = 61) (2005 FTE Proposed = 69)

#### Executive Administration Internal Audit

Finance

Treasurer

Procurement

Credit

Controller

Finance

Human Resources

Compliance

Compliance

Stakeholder Services

Program Development

Market Rules

Project Management

IT Impact Coord. & Analysis

#### Legal & Corporate Communications

(2004 FTE Approved = 15)(2004 FTE Projected = 15) (2005 FTE Proposed = 19)

#### **Market Operations**

(2004 FTE Approved = 232)(2004 FTE Projected = 212)(2005 FTE Proposed = 230)

#### Development & Architecture

Release Management/Testing Transaction Services Web & Data Services

Data Warehouse

Database Administration

Operations

Settlement & Billing

#### Market Operations

Settlement Metering Energy Analysis & Aggregation

Settlements & Billing

ESI ID Data Integrity Mgmt.

Renewables & TCR

Wholesale Market Development

#### Market Services

Wholesale Client Services

Retail Client Services

Retail Doc. & Reporting

#### **System Operations**

(2004 FTE Approved = 220)(2004 FTE Projected = 237)(2005 FTE Proposed = 264)

Energy & Market Mgmt. Systems

EMMS Development

EMMS Production

System Operations

Market Operations Support

**Operations Support** 

Chief System Operator

Transmission Services

System Planning

Resource Planning

Technology Services

System Engineering & Admin.

Facilities

Network

Corporate Applications

Cyber Security

System Architecture



## Significant Operational Responsibility

## Market Operations

• Project support, training, load and data aggregation analysts, client relations, retail transactions testing and support, settlement support

## System Operations

• Congestion analysis, facilities management, operator training, and EMMS system support

## Legal Services

Contracting processes and records management

## Corporate Administration

 Internal audit, NERC compliance, and contract coordination and procurement processes



## Top Priority Proposed Capital Projects

- TCC Phase 2 (Completion)
- EDW BI Foundation P2
- MOMs Enhancement to Potomac Software
- MOMs Enhancement to AREVA Study Tools
- EDW BI Reporting Tool
- EDW EMMS Reports
- TX SET 2.1
- PRR515 Disclosure of Local Congestion
- RT Market Ramp Rate (Feasibility Study)
- SCR738 Enhancements to FasTrak Tools
- ADAM Integration



## Capital Program

- Assumed \$35 million total capital program funded 60 percent with borrowed money
- Capital program also constrained by availability of subject matter experts
- Project funding consistent with ERCOT's Financial Policy
- Projects identified and prioritized
- Preliminary estimate of resource requirements and project cost completed
- Next steps
  - Reconciliation of project resource requirement and preliminary departmental operating budgets
  - Confirm debt utilization ratio
  - If necessary, adjust operating budgets



# Capital Program "Cut Line"

- Approximately 35 to 55 highest priority projects identified for implementation in 2005
- Completion of projects began in 2004
- Minor capital purchases personal computers, office equipment, tools, and furniture and fixtures



# Expanding the Capital Program "Cut Line"

- Increase capital funding
  - System Administration fee impact
  - Debt impact
- Operational cost savings
  - Not necessarily a one-for-one impact on funds available for added capital investment
- Hire additional subject matter experts
  - Outside services or ERCOT staff
  - System Administration fee impact

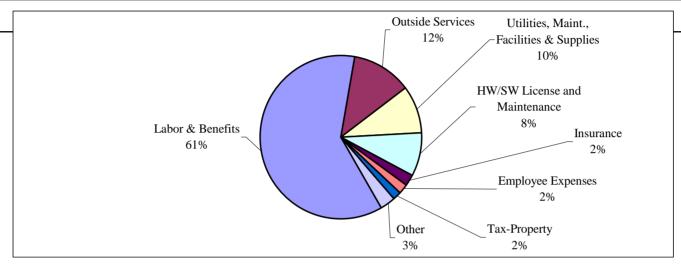




# Review 2005 Budget

# **Operating Cost Summary**

### ERCOT - O&M Component of Revenue Requirement



		2004-	2004-		
	2003- Actual	Budget	Projected	2005-Pre	lim
Labor & Benefits	34.2	44.0	41.0	51.9	61%
Outside Services	11.9	17.4	15.3	9.9	12%
Utilities, Maint., Facilities & Supplies	7.9	9.2	8.1	8.2	10%
HW/SW License and Maintenance	5.4	8.2	6.7	7.2	8%
Insurance	1.2	1.8	1.5	1.9	2%
Employee Expenses	1.3	2.8	1.9	1.6	2%
Tax-Property	1.0	1.2	1.2	1.5	2%
Other	4.0	3.0	2.8	2.5	3%
Total operating expense component of revenue requirement	67.0	87.6	78.6	84.7	100%

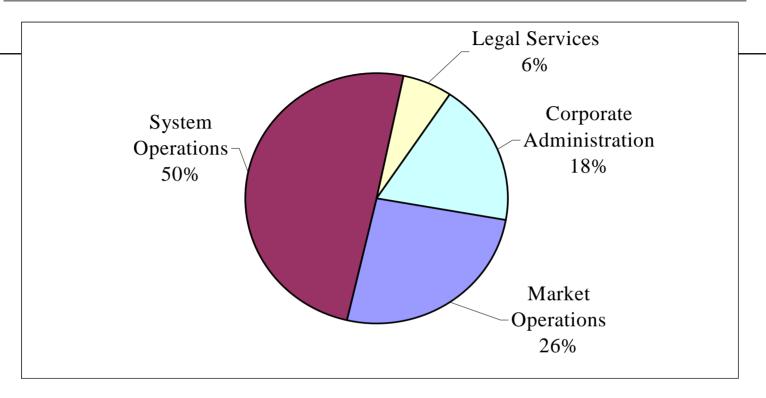


## Significant Variance Explanation

- To support operational needs 57 additional employees
- Use of outside services decreased \$5.1 million (37 percent) below 2004 projection
- Hardware and software support increased \$0.5 million (7 percent) over 2004 projection
- Facility and supply costs equal to 2004 projected and down approximately \$11 per square foot (22 percent)
- Property taxes increased \$0.3 million (25 percent) over 2004 projection due to fixed asset investment
- Insurance costs increased \$0.4 million (28 percent) over 2004 projection
- Interest expenses increased \$0.3 million (3 percent) over 2004 projection due to added debt
- Employee expenses reduced an average of nearly 23 percent per employee (\$820 per employee)



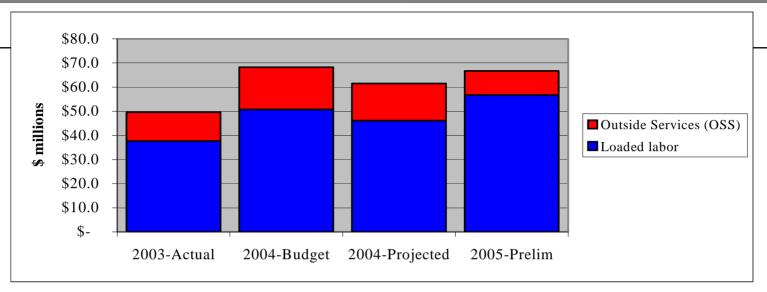
### ERCOT - O&M by Division



		FY 2005
	Director	<b>Submitted</b>
Market Operations	R. Giuliani	22.0
System Operations	S. Jones	42.1
Legal Services	M. Pemberton	5.2
Corporate Administration	M. Buckles	15.4
Total		84.7



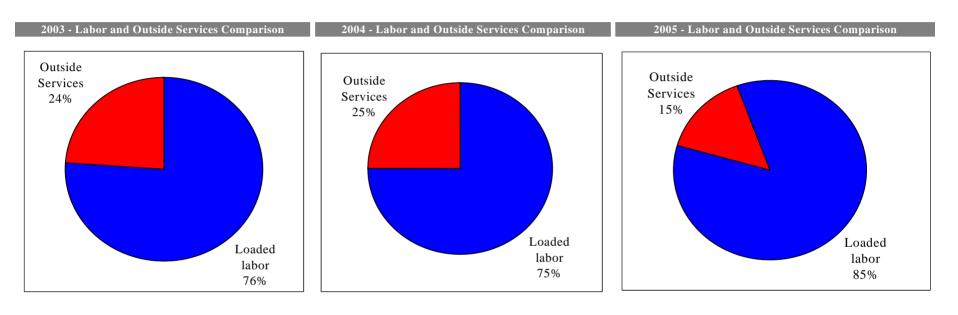
### ERCOT - Labor and Outside Services Comparison



	2003-Actual	2004-Budget	2004-Projected	2005-Prelim
Loaded labor	37.7	50.8	46.1	56.8
Outside Services (OSS)	11.9	17.4	15.3	9.9
Loaded labor plus OSS	49.6	68.2	61.5	66.7
ERCOT staff members	380	530	525	582
OSS / Loaded labor cost	31.6%	34.3%	33.3%	17.5%
Percent change - Loaded labor	na	34.8%	-9.2%	23.1%
Percent change - OSS	na	46.1%	-11.9%	-35.3%
Percent change-Lbr & OSS	na	37.5%	-9.9%	8.5%



# Increasing Reliance on ERCOT Staff



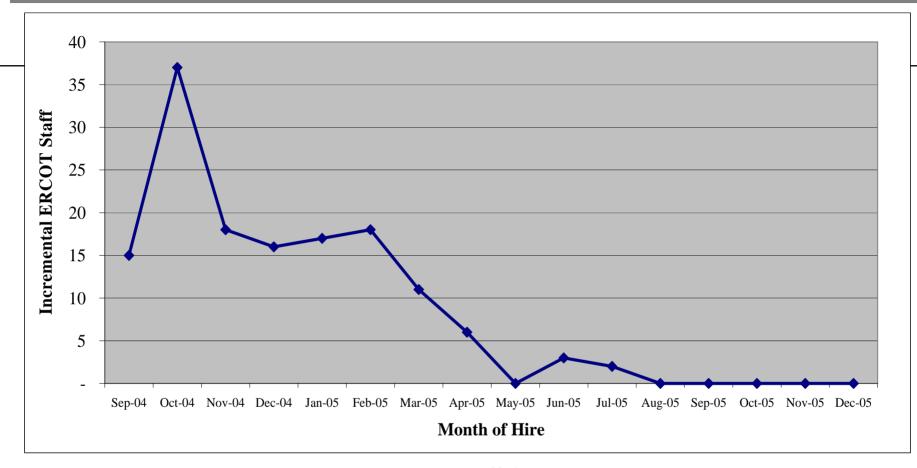


## **ERCOT - Staffing Detail**

				2004 Projected vs. 2005 Proposed				
			2004					
	Officer	2003 Actual	Projected	2005 Proposed	Variance #	Variance %		
				_				
Market Operations	R. Giuliani	167	212	230	18	8.5%		
System Operations	S. Jones	159	237	264	27	11.4%		
Legal & Corporate Communications	M. Pemberton	12	15	19	4	26.7%		
Corporate Administration	M. Buckles	42	61	69	8	13.1%		
Total		380	525	582	57	10.9%		



### **ERCOT - Estimated Hire Date**

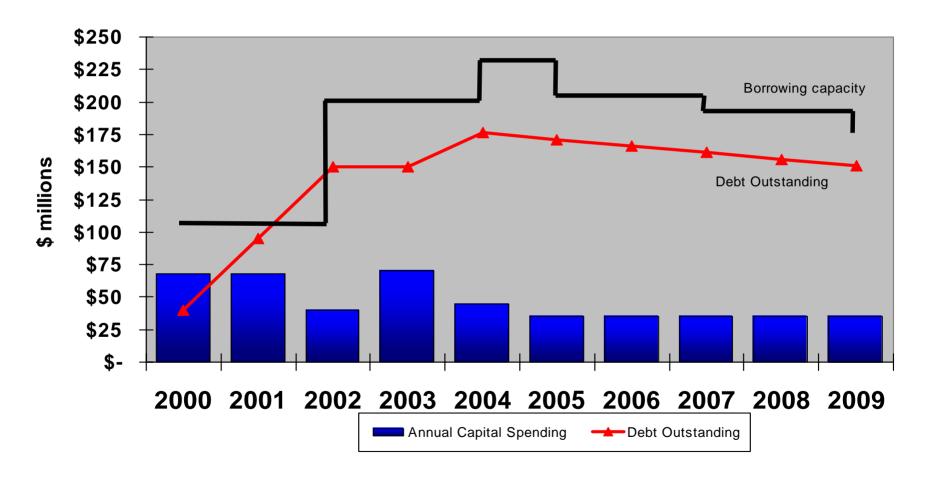


Market Operations
System Operations
Legal & Corporate
Communications
Corporate Administration
Total

Month																
Sep-04	Oct-04	Nov-04	Dec-04	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05 Total	
5	16	8	4	3	9	3	1	-	2	-	-	-	-	-	-	51
9	16	8	12	8	9	5	4	-	1	-	-	-	-	-	-	72
-	-	-	-	1	-	-	1	-	-	2	-	-	-	-	-	4
1	5	2	-	5	-	3	-	-	-	-	-	-	-	-	-	16
15	37	18	16	17	18	11	6	-	3	2	-	-	-	-	-	143



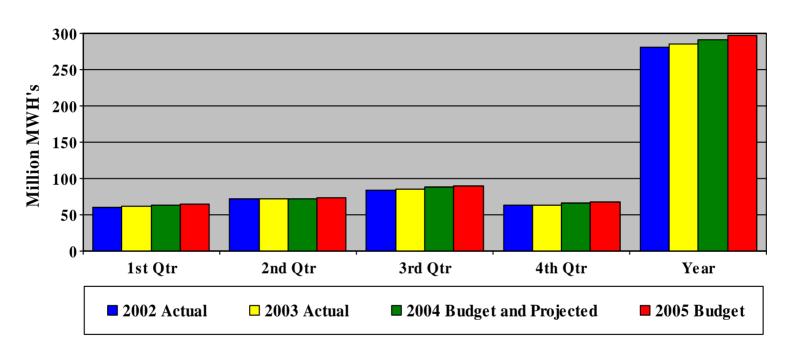
# Capital Investment Funding





## 2002-2005 MWH Trends

### 2.5% increase in 2005 over 2004 Actual and Projected



### **Prepared by ERCOT Planning Department Using:**

- > Trend analysis
- > 10-year growth rates for annual energy
- > Result compared to summation of individual TDSP forecasts with minor discrepancy

