MEMORANDUM

To: ERCOT Board of Directors

Date: October 12, 2010

Re: Item 9 – Finance & Audit (F&A) Committee Report –
Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget

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Please note that the attached document will be discussed at the F&A Committee meeting on Monday, October 18, 2010. A courtesy copy is hereby being provided to the entire Board of Directors for reference and information.

Thank you.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Mike Petterson

- Recap prior budget preparation discussions
- Summarize current budget preparations
- Review budget activity planned for November
- Answer questions regarding detailed budget work papers

- Cost consciousness coupled with recent financial performance relating to the Nodal Program enable a scenario where ERCOT would need no change in fees for 2011
  - System Administration Fee remains at $0.4171 per MWh
  - Nodal Surcharge remains at $0.3750 per MWh
  - "No fee change" scenario assumes using $25.2 million of the $113 million Board Discretionary Fund in 2011 for charges directly related to nodal post go-live charges.
    - $11.9 million of the $25.2 million is for recurring annual charges that will be incurred as an ERCOT base operating cost starting in 2012
    - $13.3 million of the $25.2 million is one-time project charges that will be incurred only in 2011

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Summarize Current Status

Proposed Post Go-Live Charges by Category	Amount ($000s)
Nodal Market Stabilization Project	$ 11,264
Hardware and Software Systems License and Maintenance	7,820
"Parking Deck" Initiatives	3,250
Deferred Defects and Workaround Processes	2,550
Decommissioning Efforts	307
Total	$ 25,191

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Summarize Current Status

- If use of Nodal Program Board Discretionary Funds for proposed post go-live charges in 2011 is not acceptable, ERCOT's resource requirements may necessitate request to increase the System Administration Fee from $0.4171 per MWh to $0.4725 per MWh for 2011.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Summarize Current Status

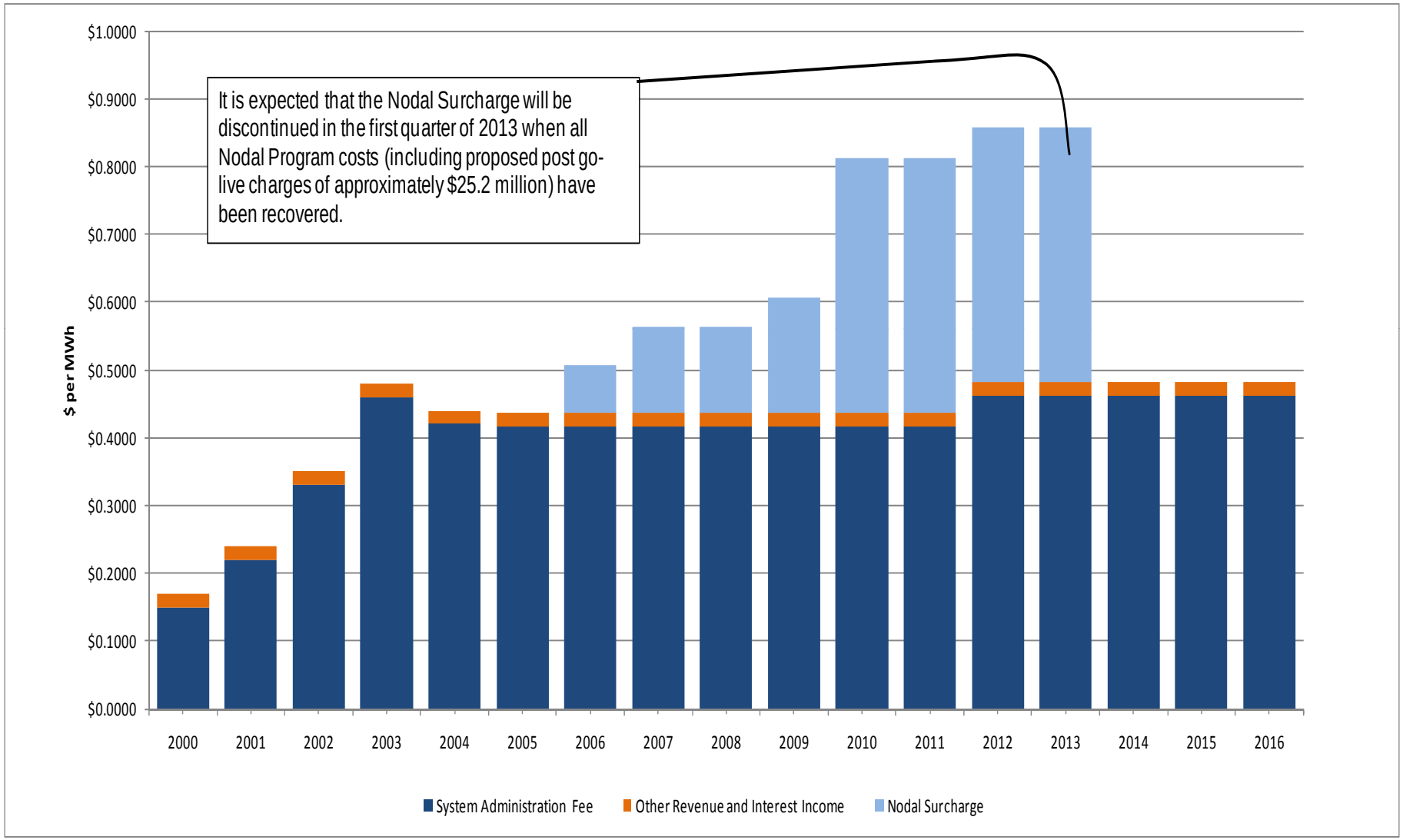
Line	Expense / Revenue Description	2011 Budget: using Board Discretionary Funds	Proposed Post Go-Live Charges	2011 Budget: without using Board Discretionary Funds
1	Expenses			
2	Staffing	$ 69,947	$ -	$ 69,947
3	Hardware and software systems	9,861	7,820	17,681
4	Outside Services	2,973	4,080	7,053
5	Facilities	10,156		10,156
6	Financing	29,715		29,715
7	Other	13,481	-	13,481
8	Subtotal - Expenses	136,133	11,900	148,033
9	Project Expenditures (40 percent revenue funding)	16,759	5,316	22,075
10	Total - Expenses and Project Expenditures	152,892	17,216	170,108
11	Less Other Revenue and Interest Income	23,426	-	23,426
12	Cost to be Recovered from the System Admininistration Fee	$ 129,466	$ 17,216	$ 146,682
13	GWh	310,410	310,410	310,410
14	ERCOT System Administration Fee	$ 0.4171	$ 0.0555	$ 0.4725

	Net	Funding Factor	Gross
Proposed post go-live charges: Annual, recurring expenses	$ (11,900)	na	$ (11,900)
Proposed post go-live charges: One-time project expenditures	(5,316)	40%	(13,291)
Total	$ (17,216)		$ (25,191)

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Summarize Current Status

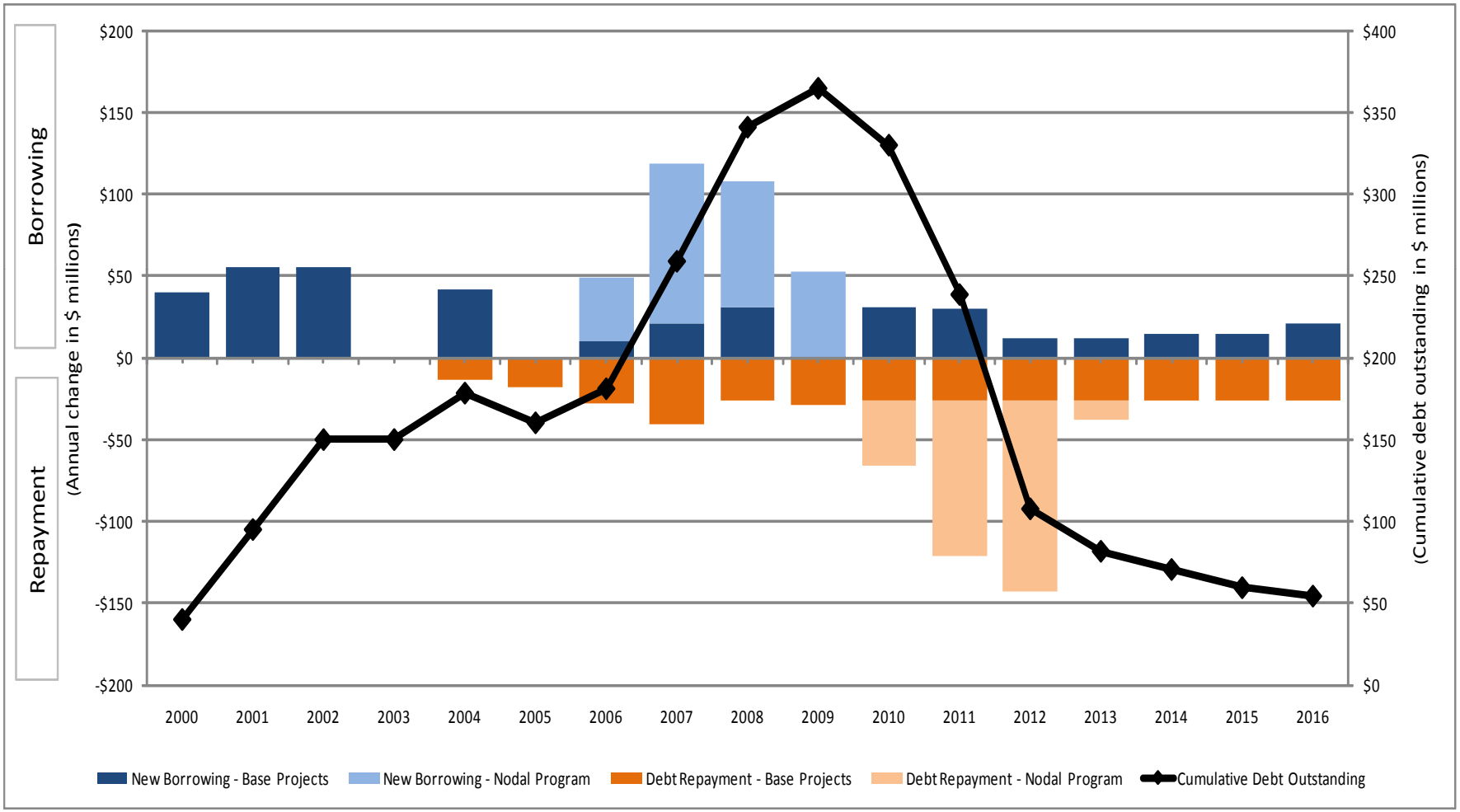
- System Administration Fee is projected to be $0.46-$0.47 per MWh for the period 2012-2016. Factors contributing to the projected fee increase include:
  - Incremental hardware and software license and support costs relating to nodal market systems
  - Incremental vendor service expenses relating to nodal market systems
  - Non-recurring events reflected in the 2011 budget
    - 2010 favorable financial variance
    - 2009 sales tax refund receipts
- Nodal Surcharge is projected to be $0.375 per MWh until Nodal Program costs (including $25.2 million of proposed post go-live charges) are fully recovered in early 2013.

5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Summarize Current Status



5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: Summarize Current Status

- Substantial debt repayment planned for 2011 -2016



5. Review Assumptions and Preliminary Schedules for the 2011 Annual Operating Budget: 2011 Budget Schedule

Action	Date
Finance and Audit Committee Meeting Discuss and Review preliminary 2011 Budget/PPL Status and Budget Assumptions	20-Jul-10
Finance and Audit Committee Meeting Discuss and Review the 2011 Budget/PPL Status and Budget Assumptions	17-Aug-10
Finance and Audit Committee Meeting Prepare and Present the 2011 Preliminary Budget/PPL (Courtesy Copy to all Board Members)	21-Sep-10
Finance and Audit Committee Meeting and Public Input Meeting Discuss and Review the 2011 Budget and PPL (Courtesy Copy to all Board Members)	18-Oct-10
Finance and Audit Committee Meeting Obtain 2011 Budget Recommendation	15-Nov-10
Board of Directors Meeting Seek Board Approval of the 2011 Budget and PPL -Vote	16-Nov-10

Workpapers and Appendices

ERCOT Fiscal Year 2011 Budget

Revenue Requirements - Assumes No Use of Nodal Discretionary Funds

(in Thousands)

Line	($ Thousands)	2009 Actual	2010 Budget	2010 Forecast	2011 Preliminary Budget	2012 Projected Budget	2013 Projected Budget	2014 Projected Budget	2015 Projected Budget	2016 Projected Budget
1	ERCOT O&M Expense									
2	Labor	51,508	59,012	52,332	69,947	68,485	70,197	71,952	73,751	75,595
3	Equipment & Tools	799	1,227	825	881	887	905	924	944	963
4	Outside Services	9,416	9,915	9,962	7,053	7,201	7,352	7,507	7,664	7,825
5	Utility, Maintenance, & Facilities	6,966	6,773	7,216	10,156	9,848	9,079	9,269	9,464	9,663
6	Hardware & Software License & Maint.	9,337	9,101	9,000	17,681	18,052	18,431	18,818	19,213	19,617
7	Employee Expenses	1,031	1,552	1,037	1,021	1,042	1,064	1,086	1,109	1,132
8	NERC Dues	2,141	2,462	8,295	11,975	12,226	12,483	12,745	13,013	13,286
9	Other Expenses	4,511	5,211	5,095	6,413	6,517	6,624	6,733	6,844	6,957
10	Subtotal - O&M Expense	85,710	95,253	93,762	125,126	124,259	126,136	129,035	132,002	135,039
11	Debt Service - Interest	2,718	5,272	2,539	3,515	3,163	2,847	2,562	2,306	2,076
12	Debt Service - Principal	26,137	26,137	26,137	26,200	26,200	26,200	26,200	26,200	26,200
13	Revenue Funded Projects	17,464	18,520	21,637	22,075	8,000	8,000	10,000	10,000	8,000
14	Protocol Services	639	1,500	787	2,466	2,246	2,293	2,342	2,391	2,441
15	Market Monitoring	2,300	2,300	2,417	2,700	2,800	2,900	3,000	3,100	3,200
16	Total Revenue Requirement	134,969	148,982	147,279	182,082	166,669	168,376	173,139	175,999	176,955
17	Less: Other Revenue	5,693	5,626	12,139	15,981	16,713	15,868	15,728	16,045	16,369
18	Less: Interest Income	51	81	5	-	-	-	-	-	-
19	Less: Extraordinary Item Revenue	705	12,760	18,570	5,000	-	-	-	-	-
20	2010 Carryforward	-	-	(14,420)	14,420	-	-	-	-	-
21	Revenue Rqmt from System Admin Fee	$ 128,519	$ 130,515	$ 130,984	$ 146,681	$ 149,956	$ 152,509	$ 157,411	$ 159,954	$ 160,587
22	GWh	308,126	312,922	314,000	310,410	319,926	330,145	337,237	342,793	347,770
23	% GWh Growth	2.2%	1.6%	0.3%	-0.8%	3.1%	3.2%	2.1%	1.6%	1.5%
24	ERCOT System Administration Fee	$ 0.4171	$ 0.4171	$ 0.4171	$ 0.4725	$ 0.4687	$ 0.4619	$ 0.4668	$ 0.4666	$ 0.4618
25	Debt Funded Projects	14,059	27,780	32,455	33,112	12,000	12,000	15,000	15,000	12,000
26	Total Base Project/Data Center/Facility Capital	31,523	46,300	54,092	55,187	20,000	20,000	25,000	25,000	20,000
27	Total ERCOT Spending Authorization	149,028	176,762	179,734	215,194	178,669	180,376	188,139	190,999	188,955

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Note:

29 Schedule reflects no use of Nodal discretionary funds in the 2011 Preliminary Budget.

ERCOT Fiscal Year 2011 Budget

Revenue Requirements Comparison 2011 vs. 2010

(in Thousands)

Line	($ Thousands)	2010 Budget	2011 Preliminary Budget	Variance	Explanations
1	**ERCOT O&M Expense**				
2	Labor for Base Operations	59,012	69,947	(10,935)	Increase of 76 FTEs with plan to decrease by 15 FTEs due to efficiencies gained throughout the year $6.1M; Reward and Recognition program reduced by $.3M; Separation Benefits estimated at $.3M; Interns cost included at $.2M; Credit allocations eliminated $4.6M
3	Equipment & Tools	1,227	881	346	Reduction in costs for office supplies, equipment maintenance, and non-capitalizable hardware indirectly related to reduction in employee and contractor headcount
4	Outside Services	9,915	7,053	2,862	$4.1M increase for fixed cost proprietary vendor support; $3.5M reduction for staff augmentation; $2.1M eliminated services primarily in System Planning and Financial Services; $1.7M savings for cost reductions; $.2M recategorized to Other; $.1M for Web-based training and courier services new for 2011
5	Utility, Maintenance, & Facilities	6,773	10,156	(3,383)	$1.7M increase related to addition of Bastrop and TCC3 locations; $1.5M increase resulting from discontinuation of facilities credit allocation from Nodal and Texas RE
6	Hardware & Software License & Maint.	9,101	17,681	(8,580)	Increase by $7.8M for support of Nodal applications and equipment
7	Employee Expenses	1,552	1,021	531	Reduced from $2,100 average for 739 positions to $1,747 average for 584 positions; lower average based on 2010 spending trend
8	NERC Dues	2,462	11,975	(9,513)	Increase due to Texas RE budget increase following the divestiture in mid 2010
9	Other Expenses	5,211	6,413	(1,201)	Property tax increased by $1.1M attributable to the additional building in Taylor (TCC3) and in Bastrop (BCC)
10	**Subtotal - O&M Expense**	95,253	125,126	(29,874)	
11	Debt Service - Interest	5,272	3,515	1,757	Savings resulting from several factors including lower debt balances, utilization of TCR auction receipts, to the extent available, in lieu of borrowing from the revolver credit facility, and lower-than-budgeted interest rates.
12	Debt Service - Principal	26,137	26,200	(63)	
13	Revenue Funded Projects	18,520	22,075	(3,555)	Driven by Nodal post go-live project
14	Protocol Services	1,500	2,466	(966)	Updated estimates for third party performance of protocol services and transition costs from Texas RE
15	Market Monitoring	2,300	2,700	(400)	Contractual increase of $.2M and Nodal program no longer cost sharing $.2M
16	Total Revenue Requirement	148,982	182,082	(33,100)	
17	Less: Other Revenue	5,626	15,981	10,355	Increase due to Texas RE budget increase following the divestiture in mid 2010; Revenue from CREZ reactive study and DOE grant were not included in the 2010 budget
18	Less: Interest Income	81	-	(81)	
19	Less: Extraordinary Item Revenue	12,760	5,000	(7,760)	Decreased amount of sales tax refund to use for 2011
20	2010 Carryforward	-	14,420	14,420	Anticipated favorable 2010 budget-to-actual variance to be utilized in 2011
21	Revenue Rqmt from System Admin Fee	$ 130,515	$ 146,681	$ (16,166)	
22	GWh	312,922	310,410	(2,512)	
23	% GWh Growth	1.6%	-0.8%	-0.8%	
24	ERCOT System Administration Fee	$ 0.4171	$ 0.4725	$ (0.0555)	
25	Debt Funded Projects	27,780	33,112	(5,332)	
26	Total Base Project/Data Center/Facility Capital Spending	46,300	55,187	(8,887)	
27	Total ERCOT Spending Authorization	176,762	215,194	(38,432)	

ERCOT Fiscal Year 2011 Budget

Summary of Estimated Income Sources

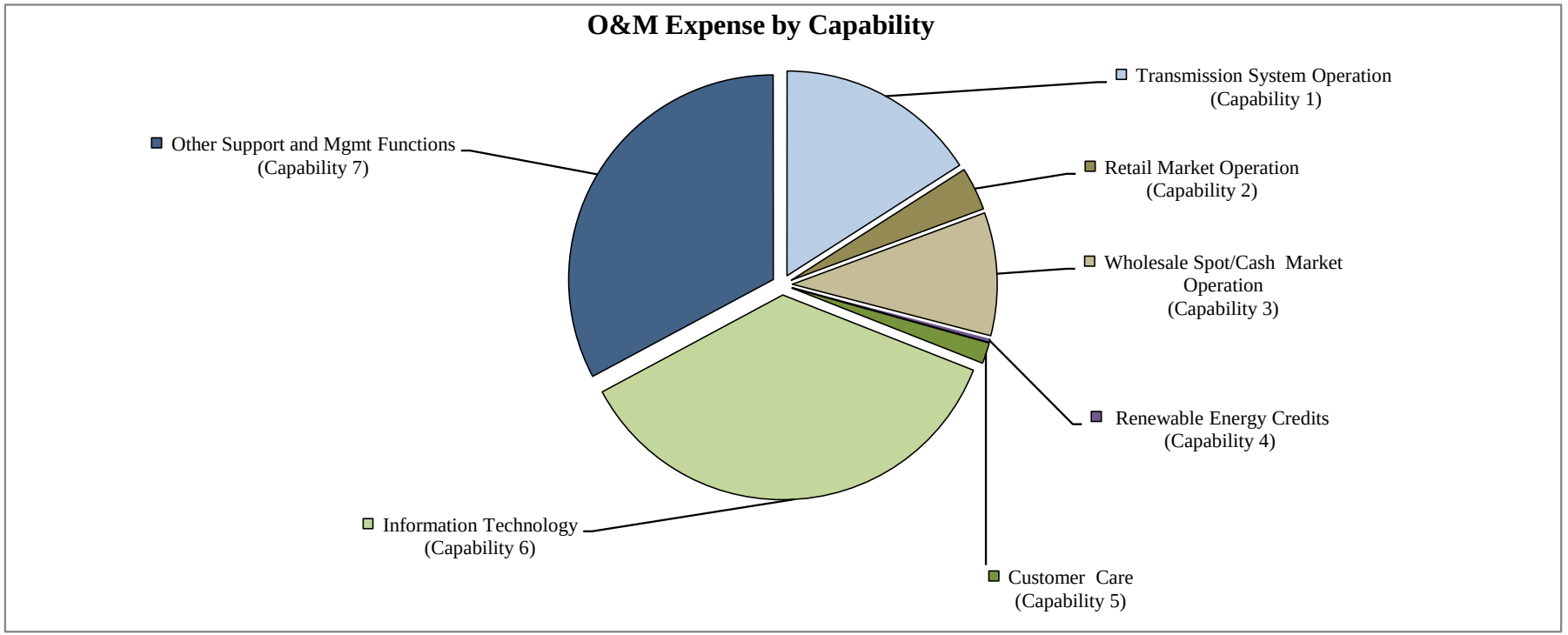
Line	Description	Protocols Reference	Calculation/Rate/Comment	2011 Preliminary Budget $	2011 Preliminary Budget %	2012 Projected Budget	2013 Projected Budget	2014 Projected Budget	2015 Projected Budget	2016 Projected Budget
1	ERCOT system administration fee	9.7.1	$0.4171 per MWh	$ 146,681,274	90.0%	$ 149,956,833	$ 152,509,055	$ 157,411,324	$ 159,954,405	$ 160,586,986
2	NERC Electric Reliability Organization fee	NA	A federally mandated, pass-through charge established to recover an amount approved by FERC for the ERCOT region's share of the annual operating costs of the Electric Reliability Organization.	11,974,880	7.0%	12,226,352	12,483,106	12,745,251	13,012,901	13,286,172
3	Private wide-area network fees	9.7.6	Recovery of a portion of expended costs. Actual cost of using third party communications network, initial equipment installation cost not to exceed $18,000, and monthly network management fee not to exceed $865.	2,208,221	1.0%	2,254,594	2,301,940	2,350,281	2,399,637	2,450,029
4	Generation interconnection study fees	NA	• Security screening study fee • Modeling fee	263,025	0.0%	263,025	263,025	263,025	263,025	263,025
5	Grant Funding	NA	Department of Energy	1,165,213	1.0%	1,599,091	450,050	-	-	-
6	Blackstart Training		Cost Sharing	32,500	0.0%	32,500	32,500	32,500	32,500	32,500
7	Interest income	NA	Computed based on assumed bank rates and deposit balances	-	0.0%	-	-	-	-	-
8	Membership dues	NA	$2,000 for corporate members and $500 for associate and adjunct members	320,000	0.0%	320,000	320,000	320,000	320,000	320,000
9	Map sale fees	NA	$20 - $40 per map request	1,000	0.0%	1,000	1,000	1,000	1,000	1,000
10	Qualified scheduling entity application fee	9.7.5	$500 per entity	7,500	0.0%	7,500	7,500	7,500	7,500	7,500
11	Competitive retailer application fee	9.7.5	$500 per entity	7,500	0.0%	7,500	7,500	7,500	7,500	7,500
12	Mismatched schedule processing fee	9.7.4	$1 per mismatched event	1,000	0.0%	1,000	1,000	1,000	1,000	1,000
13	Voluminous copy fee	NA	$0.15 per page in excess of 50 pages	-	0.0%	-	-	-	-	-
14	Late fees	9.4.6	Wall Street Journal prime interest rate plus two (2) percent	-	0.0%	-	-	-	-	-
15										
16	Total			$ 162,662,113	100.0%	$ 166,669,395	$ 168,376,675	$ 173,139,381	$ 175,999,468	$ 176,955,712
17										

Note:
In addition to the items listed above, ERCOT also collects a Nodal market surcharge which is currently $0.3750 per MWh. The Nodal Surcharge will remain in effect until the costs of implementing the Nodal Program, as approved by the Public Utility Commission of Texas, are fully recovered.

ERCOT Fiscal Year 2011 Budget

O&M Expense by Capability

(in Thousands)



Line	($ Thousands)	Transmission System Operation (Capability 1)	Retail Market Operation (Capability 2)	Wholesale Spot/Cash Market Operation (Capability 3)	Renewable Energy Credits (Capability 4)	Customer Care (Capability 5)	Information Technology (Capability 6)	Other Support and Mgmt Functions (Capability 7)	Total
1	ERCOT O&M Expense								
2	Labor for Base Operations	$ 17,609	$ 3,290	$ 10,952	$ 353	$ 1,971	$ 20,941	$ 14,831	$ 69,947
3	Equipment & Tools	22	7	15	0	2	320	514	881
4	Outside Services	-	815	148	-	-	4,401	1,689	7,053
5	Utility, Maintenance, & Facilities	1	1	0	-	-	3,727	6,427	10,156
6	Hardware & Software License & Maint.	1,079	39	773	-	54	15,411	325	17,681
7	Employee Expenses	293	39	88	14	16	271	300	1,021
8	NERC Dues	-	-	-	-	-	-	11,975	11,975
9	Other Expenses	922	73	169	-	24	205	5,020	6,413
10	Total - O&M Expense	$ 19,926	$ 4,263	$ 12,145	$ 368	$ 2,066	$ 45,277	$ 41,082	$ 125,126

ERCOT Fiscal Year 2011 Budget

Labor Workpapers

ERCOT Fiscal Year 2011 Budget

Staffing by Capability with Comparison to Study Recommendations

Line		Capability/Group/Service	Comparison to Study: Study	ERCOT Service Total	ERCOT Group Total	Variance by Group		Comments
1	**1**	**TRANSMISSION SYSTEM OPERATION**						
2	**1.1**	**System Planning**	35.00		34.97	(0.03)		
3	1.1.1	Transmission Adequacy Assessment	-	10.08	-	-		
4	1.1.2	Transmission Planning	-	17.78	-	-		
5	1.1.3	Interconnection Planning	-	0.82	-	-		
6	1.1.4	Generation/Resource Adequacy Assessment	-	3.92	-	-		
7	1.1.5	Generation & Load Planning	-	2.37	-	-		
8	**1.2**	**Transmission Connection Management**	8.51		5.15	(3.36)	1	Generation Interconnection policing efforts not an ERCOT function.
9	1.2.1	Connection Analysis/Studies	-	3.05	-	-		
10	1.2.2	Connection Scheduling	-	-	-	-		
11	1.2.3	Connection Oversight & Management	-	2.10	-	-		
12	1.2.4	Connection Commissioning	-	-	-	-		
13	**1.3**	**Grid Security Management**	23.00		27.08	4.08	2	Unable to reach study recommendation - Extensive workarounds must be eliminated before staffing efficiencies can be achieved. Efficiencies achievement estimate - 1.1.2012
14	1.3.1	Transmission Reliability Assessment	-	6.91	-	-		.
15	1.3.2	Security/Contingency Analysis	-	14.92	-	-		
16	1.3.3	Security Coordination	-	3.01	-	-		
17	1.3.4	System Restoration Planning	-	1.06	-	-		
18	1.3.5	Ancillary Services Requirement Determination	-	1.18	-	-		
19	**1.4**	**Outage Coordination/Planning**	10.00		10.08	0.08		
20	1.4.1	0	-	8.14	-	-		
21	1.4.2	Resource Outage Coordination/Planning	-	1.94	-	-		
22	**1.5**	**Real-Time System Control**	27.51		27.21	(0.30)		
23	1.5.1	Monitor and Control Transmission Network	-	10.67	-	-		
24	1.5.2	Monitor and Control Interconnectors	-	2.00	-	-		
25	1.5.3	Instruct and Monitor Facilities	-	4.02	-	-		
26	1.5.4	Frequency Control (Facilities Real-Time Control)	-	10.52	-	-		
27	1.5.5	Manage System Restoration	-	-	-	-		
28	**1.6**	**Scheduling & Dispatch**	-		-	-		Dispatching a function of real-time control today, but will not be necessary in Nodal market.
29	1.6.1	Facilities Scheduling (inc. Unit Commitment)	-	-	-	-		
30	1.6.2	Facilities Dispatch (Energy & Ancillary Services)	-	-	-	-		
31	1.6.3	Interconnection Scheduling	-	-	-	-		

ERCOT Fiscal Year 2011 Budget

Staffing by Capability with Comparison to Study Recommendations

Line		Capability/Group/Service	Comparison to Study: Study	ERCOT Service Total	ERCOT Group Total	Variance by Group		Comments
32	**1.7**	**Forecasting**	5.00		5.86	0.86	1	Function of greater importance in ERCOT region than other ISOs
33	1.7.1	Load Forecasting	-	5.26	-	-		
34	1.7.2	Wind Forecasting	-	0.60	-	-		
35	**1.8**	**Operational Testing and Performance Management**	3.01		5.46	2.45	1	Increased emphasis on testing and performance management offsets
36	1.8.1	Generator Commissioning Testing	-	-	-	-		
37	1.8.2	Generator Operational Testing	-	1.13	-	-		
38	1.8.3	Generator Black Start Testing	-	0.50	-	-		
39	1.8.4	Generator Performance Assessment	-	1.40	-	-		
40	1.8.5	Load-Participation Performance Assessment	-	2.43	-	-		
41	**1.9**	**Commercial Management**	1.00		0.60	(0.40)		
42	1.9.1	Manage Interconnection Capacity Rights Reservation	-	0.60	-	-		
43	1.9.2	Manage Interconnection Capacity Rights Trading	-	-	-	-		
44	1.9.3	Ancillary Services Procurement (Non-Market)	-	-	-	-		
45	1.9.4	Transmission Loss (Adjustment) Factor Determination	-	-	-	-		
46	1.9.5	Network Code/Agreement Management	-	-	-	-		
47	1.9.6	Monitor Network Code/Agreement Compliance	-	-	-	-		
48	**1.10**	**Operational Support**	11.50		14.73	3.23	1	Ad hoc reporting requirements can not be eliminated. Study assumption will never be realized.
49	1.10.1	Operations Analysis and Reporting	-	5.71	-	-		
50	1.10.2	Operator Training	-	9.02	-	-		
51	**1.11**	**Compliance Monitoring & Reporting**	20.51		21.25	0.74		
52	1.11.1	Dispatch Compliance	-	4.50	-	-		
53	1.11.2	Policy & Procedure Compliance	-	16.75	-	-		
54	**1.12**	**Standards Development**	-		1.50	1.50	3	
55	1.12.1	Standards Development	-	1.50	-	-		
56								
57		**Capability 1 Totals**	145.04	153.89	153.89	8.85		
58								

ERCOT Fiscal Year 2011 Budget

Staffing by Capability with Comparison to Study Recommendations

Line		Capability/Group/Service	Comparison to Study: Study	ERCOT Service Total	ERCOT Group Total	Variance by Group		Comments
59	**2**	**RETAIL MARKET OPERATION**						
60	2.1	**Retailer Registration**	3.50		3.41	(0.09)		
61	2.1.1	Retailer Registration & Qualification	-	3.41	-	-		
62	**2.2**	**Customer Switching/Registry**	6.52		6.52	-		
63	2.2.1	Customer Choice Information Provision (Awareness Programs)	-	-	-	-		
64	2.2.2	End Customer Registration	-	1.70	-	-		
65	2.2.3	End Customer Transfer	-	4.82	-	-		
66	**2.3**	**Load Profile Determination and Management**	3.50		1.20	(2.30)	1	Function primarily captured in Cap. 1.7
67	2.3.1	Load Profile Customer Segment Determination	-	0.50	-	-		
68	2.3.2	Load Profile Management	-	0.20	-	-		
69	2.3.3	Load Profile Parameter Calculation	-	0.50	-	-		
70	**2.4**	**Accumulation Metering, Data Collection and Data Aggregation**	1.00		0.83	(0.17)		
71	2.4.1	Meter Installation	-	-	-	-		
72	2.4.2	Meter Maintenance	-	-	-	-		
73	2.4.3	Meter Registration	-	0.36	-	-		
74	2.4.4	Meter Data Collection	-	-	-	-		
75	2.4.5	Meter Data Validation & Substitution	-	0.47	-	-		
76	2.4.6	Profiled Usage Estimation	-	-	-	-		
77	2.4.7	Usage Data Aggregation	-	-	-	-		
78	**2.5**	**Interval/Smart Metering, Data Collection and Data Aggregation**	1.00		0.88	(0.12)		
79	2.5.1	Meter Installation	-	-	-	-		
80	2.5.2	Meter Maintenance	-	-	-	-		
81	2.5.3	Meter Registration	-	0.46	-	-		
82	2.5.4	Meter Data Collection	-	-	-	-		
83	2.5.5	Meter Data Validation & Substitution	-	0.42	-	-		
84	2.5.6	Meter Data Aggregation	-	-	-	-		
85	**2.6**	**Bulk Transfer Management**	0.49		0.91	0.42		
86	2.6.1	Bulk Transfer Activation	-	0.38	-	-		
87	2.6.2	Bulk Customer Transfer Management	-	0.34	-	-		
88	2.6.3	End Customer Notification	-	0.19	-	-		

ERCOT Fiscal Year 2011 Budget

Staffing by Capability with Comparison to Study Recommendations

Line		Capability/Group/Service	Comparison to Study: Study	ERCOT Service Total	ERCOT Group Total	Variance by Group		Comments
89	**2.7**	**Market Information**	2.50		2.70	0.20		
90	2.7.1	Switching Analysis and Reporting	-	1.66	-	-		
91	2.7.2	Retail Market Notice Publication	-	1.04	-	-		
92	**2.8**	**Retail Market Development**	6.99		6.96	(0.03)		
93	2.8.1	Policy Definition	-	0.24	-	-		
94	2.8.2	Market Design Definition	-	0.47	-	-		
95	2.8.3	Rules Definition	-	1.50	-	-		
96	2.8.4	Rules Administration	-	2.44	-	-		
97	2.8.5	Procedure Definition	-	0.97	-	-		
98	2.8.6	Procedure Administration	-	1.33	-	-		
99	**2.9**	**Market Oversight**	1.50		2.50	1.00	2	Efficiency realization estimated 7.1.2011
100	2.9.1	Policy/Rules Compliance	-	1.45	-	-		
101	2.9.2	Process/Procedure Compliance	-	1.05	-	-		
102	**2.10**	**Dispute Management**	3.01		3.06	0.05		
103	2.10.1	Dispute Management	-	3.06	-	-		
104			-		-	-		
105		**Capability 2 Totals**	**30.01**	**28.97**	**28.97**	**(1.04)**		
106								

ERCOT Fiscal Year 2011 Budget

Staffing by Capability with Comparison to Study Recommendations

Line		Capability/Group/Service	Comparison to Study: Study	ERCOT Service Total	ERCOT Group Total	Variance by Group		Comments
107	**3**	**WHOLESALE SPOT/CASH MARKET OPERATION**						
108	**3.1**	**Participant Registration**	2.50		6.60	4.10		
109	3.1.1	Participant Registration & Qualification Management	-	6.60	-	-	2 3	Web enabled registration not yet available but on Nodal Parking deck. Efficiency achieved in 1.1.2012. Study did not account for LARs and EIS (technical requirements/site visits)
110	**3.2**	**Bidding, Scheduling and Pricing**	15.99		16.69	0.70		
111	3.2.1	Bid/Offer Receipt and Management	-	1.21	-	-		
112	3.2.2	Real-Time Market Execution (Dispatch and Pricing)	-	5.68	-	-		
113	3.2.3	Day-Ahead Market Execution (Unit Commitment/Scheduling & Pricing)	-	9.80	-	-		
114	**3.3**	**Wholesale Metering, Data Collection and Data Aggregation**	11.50		14.18	2.68	1	Study assumed meter registration efficiencies around EPS site approvals. Value add to the market related to settlement accuracy. Market rules change would be necessary to realize efficiencies.
115	3.3.1	Meter Installation	-	-	-	-		
116	3.3.2	Meter Maintenance	-	-	-	-		
117	3.3.3	Meter Registration	-	6.59	-	-		
118	3.3.4	Meter Data Collection	-	2.17	-	-		
119	3.3.5	Meter Data Validation & Substitution	-	2.17	-	-		
120	3.3.6	Meter Data Aggregation	-	3.25	-	-		
121	**3.4**	**Billing, Settlement & Credit Management**	11.95		15.05	3.10	2 1	Rule change required relating to verifiable costs. (1 FTE) Shadow Settlement efficiency (2 FTEs) If approved, efficiency achieved 1.1.2012.
122	3.4.1	Market Settlement	-	10.05	-	-		
123	3.4.2	Billing	-	2.90	-	-		
124	3.4.3	Payment Management	-	2.10	-	-		
125	**3.5**	**Credit Management**	6.00		6.00	-		
126	3.5.1	Credit Risk Management	-	5.00	-	-		
127	3.5.2	Treasury (Cash and Collateral) Management	-	1.00	-	-		
128	3.5.3	Financial Default Process Management	-	-	-	-		
129	**3.6**	**Market Information**	9.99		14.05	4.06		
130	3.6.1	Market Data Publication	-	9.25	-	-	2	Study recommends limiting ad hoc reporting and non-monitored automated reporting. Estimated efficiency achievement - 7.1.2011
131	3.6.2	Market Analysis	-	3.67	-	-		
132	3.6.3	Market Notice Publication	-	1.13	-	-		

ERCOT Fiscal Year 2011 Budget

Staffing by Capability with Comparison to Study Recommendations

Line		Capability/Group/Service	Comparison to Study: Study	ERCOT Service Total	ERCOT Group Total	Variance by Group		Comments
133	**3.7**	**CRR/FTR Management**	6.00		6.30	0.30		
134	3.7.1	Congestion Revenue Rights Allocation	-	3.00	-	-		
135	3.7.2	Congestion Revenue Rights Auction	-	3.05	-	-		
136	3.7.3	Maintain CRR Registry	-	0.25	-	-		
137	3.7.4	Manage Secondary Trading of CRRs	-	-	-	-		
138	**3.8**	**Wholesale Market Development**	14.03		12.17	(1.86)		
139	3.8.1	Policy Definition	-	2.23	-	-		
140	3.8.2	Market Design Definition	-	1.70	-	-		
141	3.8.3	Rules Definition	-	1.50	-	-		
142	3.8.4	Rules Administration	-	4.22	-	-		
143	3.8.5	Procedure Definition	-	0.80	-	-		
144	3.8.6	Procedure Administration	-	1.72	-	-		
145	**3.9**	**Market Oversight/Monitoring**	1.99		2.36	0.37		
146	3.9.1	Policy/Rules Compliance	-	2.28	-	-		
147	3.9.2	Process/Procedure Compliance	-	0.08	-	-		
148	3.9.3	Market Surveillance	-	-	-	-		
149	3.9.4	Trade Surveillance	-	-	-	-		
150	**3.10**	**Dispute Management**	3.99		4.70	0.71	2	Dispute process rule change required for staffing efficiency. Estimated change 1.1.2012
151	3.10.1	Dispute Management	-	4.70	-	-		
152								
153		**Capability 3 Totals**	**83.94**	**98.09**	**98.09**	**14.15**		
154								

ERCOT Fiscal Year 2011 Budget

Staffing by Capability with Comparison to Study Recommendations

Line		Capability/Group/Service	Comparison to Study: Study	ERCOT Service Total	ERCOT Group Total	Variance by Group		Comments
155	**4**	**RENEWABLE ENERGY CREDITS**						
156	**4.1**	REC Definition	0.19	0.19	0.19	-		
157	**4.2**	Facility Accreditation	0.15	0.15	0.15	-		
158	**4.3**	Determine REC Obligations and Verify Compliance	0.09	0.09	0.09	-		
159	**4.4**	Facility Registration	0.19	0.19	0.19	-		
160	**4.5**	REC Issuance and Retirement	0.37	0.37	0.37	-		
161	**4.6**	Verify REC Validity	1.47	1.47	1.47	-		
162	**4.7**	REC Title Tracking	0.22	0.22	0.22	-		
163	**4.8**	Information Publication	0.28	0.19	0.19	(0.09)		
164								
165		**Capability 4 Totals**	**2.96**	**2.87**	**2.87**	**(0.09)**		
166								
167	**5**	**CUSTOMER CARE**						
168	**5.1**	Training & Education Delivery	3.50	2.80	2.80	(0.71)		
169	**5.2**	Helpdesk Management	3.00	0.55	0.55	(2.45)		
170	**5.3**	Account Management	8.00	12.55	12.55	4.55		
171								
172		**Capability 5 Totals**	**14.50**	**15.89**	**15.89**	**1.39**	4	Increased support work for Level 1 & 2 QSEs and CRR account holders
173								

ERCOT Fiscal Year 2011 Budget

Staffing by Capability with Comparison to Study Recommendations

Line		Capability/Group/Service	Comparison to Study: Study	ERCOT Service Total	ERCOT Group Total	Variance by Group		Comments
174	**6**	**INFORMATION TECHNOLOGY**						
175	**6.1**	**IT Application Services**	93.00		100.76	7.76		
176	6.1.1	Database Administration	-	11.28	-	-	1	Down 3.42 FTEs from Study - necessary for base support with minor betterments - changes to databases will be captured as projects
177	6.1.2	Corporate Applications	-	7.48	-	-	1	Down 2.53 FTEs from Study- classification adjustment
178	6.1.3	Systems Operations Applications	-	23.44	-	-	1	Up 4.69 FTEs from Study
179	6.1.4	Wholesale Market Operations Applications	-	20.17	-	-	4 1	Up 1 FTEs from Study because of CMM self support. Disagree with support level of wholesale transaction processing
180	6.1.5	Retail Market Operations Applications	-	17.45	-	-	2	Up 7.45 FTEs from Study- potential staffing efficiency possible 1.1.2012 by consolidating tasks and ross training. Testing is not included as recommended by Study
181	6.1.6	Enterprise Integration	-	7.35	-	-		Down .08 FTE from Study
182	6.1.7	Vendor Management	-	3.00	-	-		
183	6.1.8	Release Management	-	6.14	-	-		
184	6.1.9	Other Application Services	-	4.45	-	-	3	Up .45 FTEs from Study - fewer resources for Openview; however, missed capability in data extracts and reporting.
185	**6.2**	**IT Infrastructure Services**	46.50		53.24	6.74		
186	6.2.1	Network and Telecom Services	-	10.71	-	-		Down 1.29 FTEs from Study - combined field services, deskside support, deskside imaging, and asset management
187	6.2.2	Server Support	-	15.78	-	-		Down .15 FTE from Study
188	6.2.3	Enterprise Architecture	-	2.50	-	-		Down .74 FTE from Study
189	6.2.4	Enterprise Storage	-	10.55	-	-	1	Up 2.21 FTEs from Study
190	6.2.5	IT Security	-	11.70	-	-	3	Up 4.7 FTEs from Study - Transferred access management effort from IT.
191	6.2.6	Other IT Infrastructure Services	-	2.00	-	-	3	Capacity performance (short term); performance tuning
192	**6.3**	**IT Support**	15.00		14.77	(0.23)		
193	6.3.1	Help Desk	-	8.27	-	-		
194	6.3.2	Field Services	-	6.50	-	-		
195	6.3.3	Other IT Support Services	-	-	-	-		
196	**6.4**	**IT Strategy & Planning**	6.00		6.96	0.96		
197	6.4.1	IT Strategic Planning, Budgeting	-	2.25	-	-	3	Increased for software compliance management
198	6.4.2	IT Standards	-	1.39	-	-		
199	6.4.3	Other IT Strategy & Planning	-	3.32	-	-		
200								
201		**Capability 6 Totals**	**160.50**	**175.73**	**175.73**	**15.23**		
202								

ERCOT Fiscal Year 2011 Budget

Staffing by Capability with Comparison to Study Recommendations

Line		Capability/Group/Service	Comparison to Study: Study	ERCOT Service Total	ERCOT Group Total	Variance by Group		Comments
203	**7**	**OTHER SUPPORT & MANAGEMENT FUNCTIONS**						
204	**7.1**	**Executive Support**	4.50		4.75	0.25		
205	7.1.1	Office of the CEO	-	3.00	-	-		
206	7.1.3	Board Support	-	1.75	-	-		
207	**7.2**	**Administrative Support**	17.51		14.90	(2.61)		
208	7.2.1	Administrative Support	-	14.90	-	-		
209	**7.3**	**Strategy & Business Planning**	2.00		2.00	-		
210	7.3.1	Strategy & Business Planning	-	2.00	-	-		
211	**7.4**	**Internal Audit**	6.00		5.75	(0.25)		
212	7.4.1	Internal Audit	-	5.75	-	-		
213	**7.5**	**Legal**	10.00		13.00	3.00		
214	7.5.1	Regulatory	-	5.50	-	-		
215	7.5.2	Corporate	-	7.50	-	-	2/3	Contract efficiency not realized until 1.1.2012
216	**7.6**	**Finance**	18.50		18.50	-		
217	7.6.1	General Accounting & Finance	-	11.50	-	-		
218	7.6.2	Purchasing & Contract Administration	-	6.00	-	-		
219	7.6.3	Payroll	-	1.00	-	-		
220	**7.7**	**Human Resources**	8.00		8.00	-		
221	7.7.1	Human Resources	-	8.00	-	-	1	Increase for Compensation & Benefits effort
							2	Outsourcing payroll & benefits function - efficiency to be achieved by 7.1.2011.
222	**7.8**	**Facilities/Security**	20.00		21.30	1.30		
223	7.8.1	Facilities Management	-	16.00	-	-	3	Increased for Health & Safety Coordination
224	7.8.2	Physical Security	-	5.30	-	-		
225	7.9	**Stakeholder Relations**	6.00		7.15	1.15		
226	7.9.1	Government and Regulatory Relations	-	5.15	-	-	4	Increased reliability requirement for NERC, ERO, FERC, PUCT response/coordination
227	7.9.2	Communications	-	2.00	-	-		
228	**7.10**	**Project / Program Management**	5.00		8.34	3.34	1	Required staff for continuity
229	7.10.1	Project and Program Management	-	8.34	-	-		
230	**7.11**	**Internal Controls & Risk Management**	-		5.00	5.00		
231	7.11.1	Internal Controls & Risk Management	-	5.00	-	-	1	
							2	Staffing Efficiency anticipated 7.1.2011
							4	Risk capability not included in Study
232								
233		**Capability 7 Totals**	**97.51**	**108.69**	**108.69**	**11.18**		
234								
235								
236		**Totals**	**534.46**	**584.13**	**584.13**	**49.67**		
237								

238	Note:	
239	Variance explanations provided based on the following four categories:	
240	1. Disagree with Study assumption(s)	8
241	2. Study assumption(s) not implemented/realized	28
242	3. Study missed Capability	11
	4. Increased scope of work since Study performed	3
243	Total	50

ERCOT Fiscal Year 2011 Budget

Outside Services Workpapers

ERCOT Fiscal Year 2011 Budget

Outside Service Detail - Mandated

Line	Department	2011 Preliminary Budget	Description of Service(s)	Category
1	EMMS Development	$ 4,080,000	Resources required for defect fixes, performance issues, security patch management, etc. on proprietary and custom software critical to the Market.	Mandated
2	Retail Client Services & Analysis	814,560	PUCT mandated End User Switch and POLR notifications.	Mandated
3	General Counsel	600,000	Outside Legal Counsel: Outside Legal Services regarding litigation or areas requiring specialized legal knowledge and skills not possessed by in-house legal staff. Expert witness fees, court reporter fees, employment/employee benefits, information technology, intellectual property, security/compliance, tax/financing, governance, insurance/risk management, records management, and related items. The services are necessary to obtain expert advice on all legal issues confronting the company (e.g. Employee Retirement Income Security Act (ERISA), bankruptcy, antitrust, litigation, etc.).	Mandated
4	Board of Directors	554,000	Expenses associated with the ongoing support and administration of the Board of Directors • Independent member compensation • Member replacement • Business expense reimbursement • Special meetings and retreats as necessary	Mandated
5	Accounting & Financial Reporting	125,000	Annual financial statement audit: Mandatory to be compliant with Public Utility Commission of Texas (PUCT) rules. Must be performed by external auditing firm.	Mandated
6	Internal Control Management Program	86,100	SAS 70 Audit is required to be performed by an external independent certified public accounting firm.	Mandated
7	Settlements & Billing Operations	31,992	RMR Contractor to satisfy protocol requirement for audit of RMR (Zonal Protocols Section 22, Attachment F, Section 13; Nodal Protocols Section 22, Attachment B, Section 13). Cost based on historical billing.	Mandated
8	Accounting & Financial Reporting	20,000	Annual IRS form 990 review and filing: This is a required statutory audit, that has to be performed externally.	Mandated
9	Human Resources	15,000	Support for determining the Financial Accounting Standards Board (FASB) 106 Liability for post retiree medical benefits for ERCOT.	Mandated
10	Human Resources	15,000	401k Audit: Federal law requires that ERCOT include audited benefit plan financial statements with its annual Internal Revenue Service (IRS) Form 5500 filing. The benefit plan audits must be performed by an independent audit firm. Loss of the qualified tax status of the benefit plans resulting in significant liability to the company and possible ERCOT employees.	Mandated
11	**Subtotal - Mandated Outside Services**	**$ 6,341,652**		

ERCOT Fiscal Year 2011 Budget

Outside Service Detail - Discretionary

Line	Department	2011 Preliminary Budget	Description of Service(s)	Category
12	Technology Services Administration	$ 321,360	Lawson Hosting - Lower cost to host externally, would require hardware and 3 support specialists to host internally	Discretionary
13	Human Resources	190,000	Immigration Assistance: These fees cover the specialized legal expertise in the immigration area as well as the filing fees associated with the hiring of non-US citizens. These fees are required to recruit for power engineers and certain Information Technology functions. The legal expertise in immigration is a very specialized area and ERCOT does not require a full-time position. Approximate 1/2 of the expense in this area is for legal services and the rest covers the actual fees.	Discretionary
13	Human Resources	60,000	Web Based e-Learning Program: Enables business organizations to maximize business performance through a combination of comprehensive e-learning content, online information resources, flexible learning technologies and support services. It is a 24x7 program with a course library of over 4,000 courses related to Business Development and IT. Program will be used to enhance competencies for job skills and reduce travel costs.	Discretionary
14	Human Resources	60,000	External data and compensation reviews/comparisons, as requested, for specific positions.	Discretionary
15	Facilities Management	50,000	Courier Services required for mail collection, routing and distribution in lieu of FTE	Discretionary
16	Credit Administration	30,000	Ratings service and data feed to ERCOT's new credit program for Nodal. The use of these services is contingent on the Board of Directors approving creditworthiness standards that include ratings.	Discretionary
17	**Subtotal - Discretionary Outside Services**	**$ 711,360**		
18				
19	**Total - Base Operations Outside Services**	**$ 7,053,012**		

ERCOT Fiscal Year 2011 Budget

Requested Outside Service Not Funded

Line	Department	2011 Preliminary Budget	Description of Service(s)	Category
20				
21	Critical Infrastructure Security	$ 300,000	EMMS Security Assessment to comply with NERC CIP 5 R4 and CIP 7 R8	Discretionary
22	Long Term Planning & Policy	200,000	Development of three-phase (PSCad or similar) models of west Texas ERCOT system to allow evaluation of sub-cycle system dynamics. Potential issues include sub synchronous interaction, sub-synchronous resonance, optimization of shunt reactive devices to support wind generation.	Discretionary
23	Mid Term Planning	175,000	Recent dynamic studies have indicated that the load models used for these studies is highly important in determining the results of those studies. Since these studies are increasingly resulting in real costs to the system (congestion, dynamic reactive devices, etc.) in the order of $100Ms, it is important to validate the appropriateness of these models against real world response.	Discretionary
24	Internal Audit	195,000	Contract labor staff augmentation	Discretionary
25	Long Term Planning & Policy	150,000	Procurement of wind generation patterns, based on actual location of wind farms in ERCOT and actual historical weather data and assuming actual wind turbine technologies installed, for use in planning models to better understand diversity of wind patterns and likely system congestion.	Discretionary
26	Critical Infrastructure Security	150,000	Security penetration assessment of the network perimeter, email and remote access. The assessment will allow ERCOT to respond to the NERC Compliance Action Notice - 0005, Compliance Application CIP-002-3 R3	Discretionary
27	Retail Client Services & Analysis	130,000	Prepare, distribute, and collect results of market participant survey requested by Board of Directors. Perception surveys on conducted on various services offered to the market such as meeting management, website revisions, etc.	Discretionary
28	Human Resources	125,000	University Co-Op program and curriculum development: Services required to develop university curriculum, provide studies and internship programs. This service will be performed along with ERCOT staff.	Discretionary
29	Long Term Planning & Policy	100,000	Procurement of new model for analysis of Expected loss-of-load events (LOLE), assessment of target reserve margin, and expected load carrying capability of variable generation. New model would allow evaluation of the impact of transmission congestion on deliverability of generation reserves.	Discretionary
30	Physical Security	88,000	A 3-year Remote Managed Services Contract with the access control system vendor to provide patching, software upgrades, software updates, corrective procedures and planning, hardware and software specifications and procurement instructions, system network environment schematics and requirement instructions, database system layout, forms and credentials design, access level and alarm configuration. This contract would prevent system down time and possible loss of control of access to critical cyber asset areas as well as provide compliance for CIP7 R1, R3 and CIP3 R6. Currently support is being provided by a security analyst in the Critical Infrastructure Security department on an as available basis.	Discretionary
31	Human Resources	60,000	Benefits Audit(s)/Survey(s): Third party administrator to audit claims paid by benefit providers (medical, dental, vision, etc.) to make sure they are not overpaying claims. Along with benefit surveys to see if we are in line with the market. The audits/survey's do not have to be performed annual, so the estimate listed is based on a couple per year that we would rotate around.	Discretionary
32	Mid Term Planning	50,000	Dynamic studies are increasingly being used to determine system limits and determine system equipment needs. The costs of these limits and equipment is in the order of $100Ms. It is therefore increasingly important to validate that these models accurately reflect the actual performance of units on the system.	Discretionary
33	Physical Security	50,000	External cyber vulnerability assessment of the Physical Access Control System to comply with NERC CIP Standard CIP-006 R2.2.	Discretionary
34	**Total Requested Outside Services Not Funded**	**$ 1,773,000**		

ERCOT Fiscal Year 2011 Budget

Outside Service Detail - Mandated

Line	Department	Description of Service(s)	2011 Preliminary Budget	2012 Projected Budget	2013 Projected Budget	2014 Projected Budget	2015 Projected Budget	2016 Projected Budget
1	EMMS Development	Resources required for defect fixes, performance issues, security patch management, etc. on proprietary and custom software critical to the Market.	$ 4,080,000	$ 4,165,680	$ 4,253,159	$ 4,342,476	$ 4,433,668	$ 4,526,775
2	Retail Client Services & Analysis	PUCT mandated End User Switch and POLR notifications.	814,560	831,666	849,131	866,962	885,169	903,757
3	General Counsel	Outside Legal Counsel: Outside Legal Services regarding litigation or areas requiring specialized legal knowledge and skills not possessed by in-house legal staff. Expert witness fees, court reporter fees, employment/employee benefits, information technology, intellectual property, security/compliance, tax/financing, governance, insurance/risk management, records management, and related items. The services are necessary to obtain expert advice on all legal issues confronting the company (e.g. Employee Retirement Income Security Act (ERISA), bankruptcy, antitrust, litigation, etc.).	600,000	612,600	625,465	638,599	652,010	665,702
4	Board of Directors	Expenses associated with the ongoing support and administration of the Board of Directors • Independent member compensation • Member replacement • Business expense reimbursement • Special meetings and retreats as necessary	554,000	565,634	577,512	589,640	602,023	614,665
5	Accounting & Financial Reporting	Annual financial statement audit: Mandatory to be compliant with Public Utility Commission of Texas (PUCT) rules. Must be performed by external auditing firm.	125,000	127,625	130,305	133,042	135,835	138,688
6	Internal Control Management Program	SAS 70 Audit is required to be performed by an external independent certified public accounting firm.	86,100	87,908	89,754	91,639	93,563	95,528
7	Settlements & Billing Operations	RMR Contractor to satisfy protocol requirement for audit of RMR (Zonal Protocols Section 22, Attachment F, Section 13; Nodal Protocols Section 22, Attachment B, Section 13). Cost based on historical billing.	31,992	32,664	33,350	34,050	34,765	35,495
8	Accounting & Financial Reporting	Annual IRS form 990 review and filing: This is a required statutory audit, that has to be performed externally.	20,000	20,420	20,849	21,287	21,734	22,190
9	Human Resources	Support for determining the Financial Accounting Standards Board (FASB) 106 Liability for post retiree medical benefits for ERCOT.	15,000	15,315	15,637	15,965	16,300	16,643
10	Human Resources	401k Audit: Federal law requires that ERCOT include audited benefit plan financial statements with its annual Internal Revenue Service (IRS) Form 5500 filing. The benefit plan audits must be performed by an independent audit firm. Loss of the qualified tax status of the benefit plans resulting in significant liability to the company and possible ERCOT employees.	15,000	15,315	15,637	15,965	16,300	16,643
11		**Subtotal - Mandated Outside Services**	**$ 6,341,652**	**$ 6,474,827**	**$ 6,610,798**	**$ 6,749,625**	**$ 6,891,367**	**$ 7,036,086**

ERCOT Fiscal Year 2011 Budget

Outside Service Detail - Discretionary

Line	Department	Description of Service(s)	2011 Preliminary Budget	2012 Projected Budget	2013 Projected Budget	2014 Projected Budget	2015 Projected Budget	2016 Projected Budget
12	Technology Services Administration	Lawson Hosting - Lower cost to host externally, would require hardware and 3 support specialists to host internally	$ 321,360	328,109	334,999	342,034	349,217	356,550
13	Human Resources	Immigration Assistance: These fees cover the specialized legal expertise in the immigration area as well as the filing fees associated with the hiring of non-US citizens. These fees are required to recruit for power engineers and certain Information Technology functions. The legal expertise in immigration is a very specialized area and ERCOT does not require a full-time position. Approximate 1/2 of the expense in this area is for legal services and the rest covers the actual fees.	190,000	193,990	198,064	202,223	206,470	210,806
14	Human Resources	Web Based e-Learning Program: Enables business organizations to maximize business performance through a combination of comprehensive e-learning content, online information resources, flexible learning technologies and support services. It is a 24x7 program with a course library of over 4,000 courses related to Business Development and IT. Program will be used to enhance competencies for job skills and reduce travel costs.	60,000	61,260	62,546	63,860	65,201	66,570
15	Human Resources	External data and compensation reviews/comparisons, as requested, for specific positions.	60,000	61,260	62,546	63,860	65,201	66,570
16	Facilities Management	Courier Services required for mail collection, routing and distribution in lieu of FTE	50,000	51,050	52,122	53,217	54,334	55,475
17	Credit Administration	Ratings service and data feed to ERCOT's new credit program for Nodal. The use of these services is contingent on the Board of Directors approving creditworthiness standards that include ratings.	30,000	30,630	31,273	31,930	32,600	33,285
18		**Subtotal - Discretionary Outside Services**	**$ 711,360**	**$ 726,299**	**$ 741,551**	**$ 757,123**	**$ 773,023**	**$ 789,256**
19								
20		**Total - Base Operations Outside Services**	**$ 7,053,012**	**$ 7,201,125**	**$ 7,352,349**	**$ 7,506,748**	**$ 7,664,390**	**$ 7,825,342**

ERCOT Fiscal Year 2011 Budget

Facilities & Equipment Workpapers

ERCOT Fiscal Year 2011 Budget
Facilities Summary by Building
($ in Thousands)

Line	Building	2009 Actual	2010 Budget	2010 Forecast	2011 Preliminary Budget	2012 Projected Budget	2013 Projected Budget	2014 Projected Budget	2015 Projected Budget	2016 Projected Budget
1	TCC1 and TCC2	$ 5,690,257	$ 5,471,848	$ 5,921,887	$ 7,052,761	$ 7,200,869	$ 7,352,087	$ 7,506,481	$ 7,664,117	$ 7,825,063
2	*Square Footage*	*170,400*	*170,400*	*170,400*	*170,400*	*170,400*	*170,400*	*170,400*	*170,400*	*170,400*
3	TCC3	$ -	$ -	$ -	$ 370,377	$ 378,155	$ 386,096	$ 394,204	$ 402,482	$ 410,935
4	*Square Footage*	-	-	-	*25,000*	*25,000*	*25,000*	*25,000*	*25,000*	*25,000*
5	Bastrop	$ -	$ -	$ -	$ 1,285,777	$ 1,312,778	$ 1,340,347	$ 1,368,494	$ 1,397,232	$ 1,426,574
6	*Square Footage*	-	-	-	*35,300*	*35,300*	*35,300*	*35,300*	*35,300*	*35,300*
7	Met Center	$ 1,275,568	$ 1,263,140	$ 1,292,246	$ 1,444,135	$ 956,449	$ -	$ -	$ -	$ -
8	*Square Footage*	*45,000*	*45,000*	*45,000*	*45,000*	*22,500*	-	-	-	-
9	**Total Facilities Costs**	**$ 6,965,825**	**$ 6,734,988**	**$ 7,214,132**	**$ 10,153,050**	**$ 9,848,251**	**$ 9,078,530**	**$ 9,269,179**	**$ 9,463,832**	**$ 9,662,572**
10										
11	*Total Square Footage*	*215,400*	*215,400*	*215,400*	*275,700*	*253,200*	*230,700*	*230,700*	*230,700*	*230,700*
12										
13	Cost per Square Foot	**$ 32.34**	**$ 31.27**	**$ 33.49**	**$ 36.83**	**$ 38.90**	**$ 39.35**	**$ 40.18**	**$ 41.02**	**$ 41.88**

ERCOT Fiscal Year 2011 Budget

Facilities & Equipment Summary by Account

Line	Description	2009 Actual	2010 Budget	2010 Forecast	2011 Preliminary Budget	2012 Projected Budget	2013 Projected Budget	2014 Projected Budget	2015 Projected Budget	2016 Projected Budget
1	**Utilities**									
2	Electricity	$ 1,632,750	$ 1,670,000	$ 1,590,307	$ 2,042,000	$ 1,917,429	$ 1,786,871	$ 1,824,395	$ 1,862,708	$ 1,901,824
3	Water Service	-	-	-	-	-	-	-	-	-
4	Fuel Oil	14,099	12,000	12,959	25,421	25,955	26,500	27,056	27,625	28,205
5	Water/Gas/Sewer/Trash	97,242	75,000	76,473	112,894	107,080	100,972	103,092	105,257	107,467
6	Subtotal - Utilities	1,744,091	1,757,000	1,679,739	2,180,315	2,050,463	1,914,342	1,954,544	1,995,589	2,037,496
7										
8	**Rent**									
9	Office Rental	936,336	864,000	1,046,897	882,144	671,914	-	-	-	-
10	Miscellaneous Rental	24,750	-	-	25,270	25,801	26,342	26,896	27,460	28,037
11	Storage Rental	91,898	55,200	73,132	81,460	83,171	84,917	86,700	88,521	90,380
12	Subtotal - Rent	1,052,985	919,200	1,120,029	988,874	780,885	111,260	113,596	115,981	118,417
13										
14	**Telecom**									
15	PBX Lease for ISO	-	-	-	-	-	-	-	-	-
16	Telephone - Local	63,187	68,600	87,195	78,797	80,452	82,141	83,866	85,628	87,426
17	Telephone - Long Distance	126,426	122,930	126,060	153,060	156,274	159,556	162,907	166,328	169,821
18	Telephone - Conf. Calls	3,651	-	-	-	-	-	-	-	-
19	Internet Service	161,559	171,600	144,935	150,517	152,904	155,356	158,619	161,950	165,351
20	Data/Voice Circuits	21,671	21,600	4,994	11,063	11,296	11,533	11,775	12,022	12,275
21	Web Conferencing	198,303	365,000	329,208	368,960	376,708	384,619	392,696	400,943	409,363
22	Subtotal - Telecom	574,798	749,730	692,393	762,398	777,634	793,206	809,863	826,870	844,234
23										
24	**WAN**	2,940,547	3,130,000	2,826,673	3,095,676	3,160,685	3,227,060	3,294,828	3,364,019	3,434,664
25										
26	**Building Maintenance**									
27	Building Maintenance	549,729	238,000	613,462	907,897	853,505	799,451	816,239	833,380	850,881
28	Grounds Maintenance	49,300	45,000	46,529	96,995	67,147	37,314	38,098	38,898	39,715
29	Custodial Service	242,582	273,000	226,717	270,378	276,056	281,853	287,772	293,815	299,985
30	Miscellaneous Services	123,080	134,150	139,998	465,518	467,791	470,264	480,139	490,222	500,517
31	Bldg. Security Services	896,643	955,000	905,231	1,385,000	1,414,085	1,443,781	1,474,100	1,505,056	1,536,662
32	Subtotal - Building Maintenance	1,861,334	1,645,150	1,931,937	3,125,787	3,078,583	3,032,662	3,096,348	3,161,371	3,227,760
33										
34	**Nodal & Texas RE Allocations**	(1,207,930)	(1,466,092)	(1,036,638)	-	-	-	-	-	-
35										
36	**Total - Facilities**	$ 6,965,825	$ 6,734,988	$ 7,214,132	$ 10,153,050	$ 9,848,251	$ 9,078,530	$ 9,269,179	$ 9,463,832	$ 9,662,572
37										
38	**Materials, Supplies, & Equipment**									
39	Equipment Maintenance	$ 116,629	$ 235,000	$ 112,741	$ 122,571	$ 109,830	$ 112,136	$ 114,491	$ 116,896	$ 119,350
40	Equipment Rental	88,012	68,000	61,720	84,580	101,671	103,807	105,986	108,212	110,485
41	Hardware < $1,000	81,388	237,200	150,236	148,723	151,846	155,035	158,290	161,614	165,008
42	Software < $1,000	88,436	153,100	127,894	143,704	146,722	149,803	152,949	156,161	159,440
43	Misc Equip Repairs	796	2,000	536	406	415	423	432	441	451
44	Vehicle Maintenance	12,887	9,000	10,573	12,624	12,889	13,160	13,436	13,719	14,007
45	Equipment & Tools < $1,000	240,949	200,000	207,878	200,000	204,200	208,488	212,866	217,336	221,900
46	Office Supplies	113,988	292,716	108,925	117,553	120,022	122,542	125,116	127,743	130,426
47	Chemical Supplies	55,999	30,000	44,486	50,405	39,007	39,826	40,662	41,516	42,388
48	**Total - Equipment**	$ 799,084	$ 1,227,016	$ 824,990	$ 880,566	$ 886,601	$ 905,220	$ 924,230	$ 943,638	$ 963,455
49										
50	**Total Facilities & Equipment**	$ 7,764,909	$ 7,962,004	$ 8,039,122	$ 11,033,616	$ 10,734,852	$ 9,983,750	$ 10,193,408	$ 10,407,470	$ 10,626,027
51										

Notes:

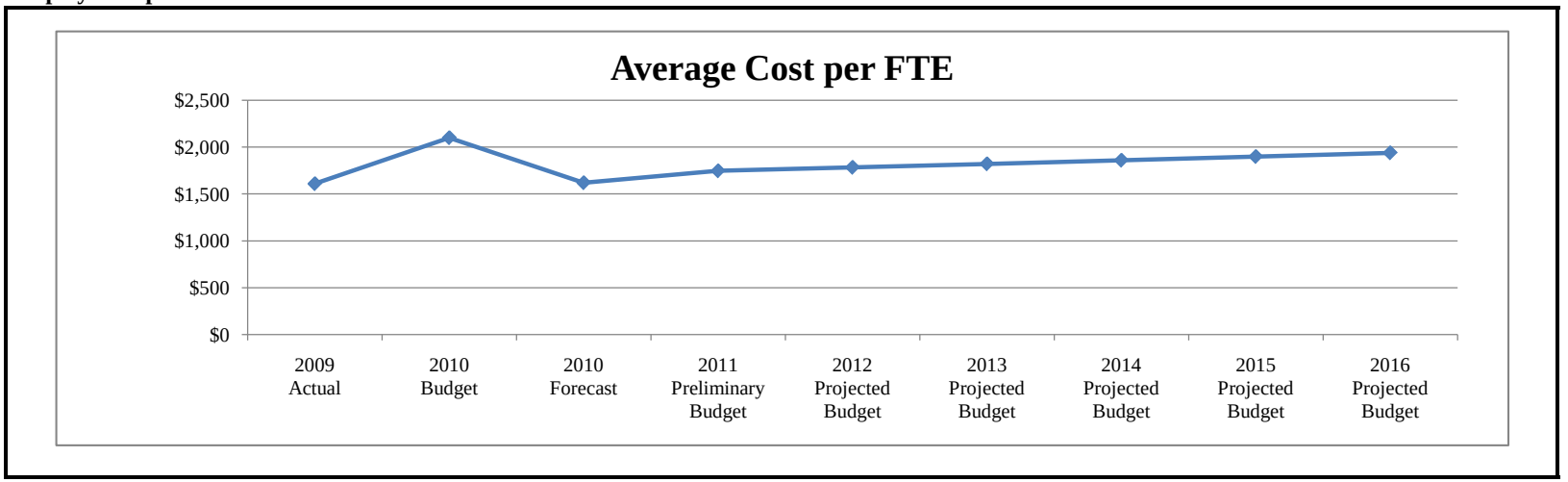
1. Nodal & Texas RE Allocation includes recovery for facility and information technology utilization.
2. Office rent includes rent for the Met Center location through June 2012 as well as the contract termination fee of $243K payable in July 2012.

ERCOT Fiscal Year 2011 Budget

Employee Expenses Workpapers

ERCOT Fiscal Year 2011 Budget

Employee Expense



Line		2009 Actual	2010 Budget	2010 Forecast	2011 Preliminary Budget	2012 Projected Budget	2013 Projected Budget	2014 Projected Budget	2015 Projected Budget	2016 Projected Budget
1	**ERCOT**									
2	Training - Registration Fees	$ 287,074	$ 522,485	$ 229,560	$ 246,619	$ 251,798	$ 257,086	$ 262,484	$ 267,996	$ 273,624
3	Cellular Phone	210,885	163,807	212,450	205,988	210,314	214,731	219,240	223,844	228,545
4	Business - Mileage Reimbursemen	98,747	74,329	83,472	81,881	83,601	85,356	87,149	88,979	90,847
5	Training - Travel -Lodging	63,764	150,465	79,606	61,307	62,595	63,909	65,251	66,622	68,021
6	College Education Reimbursement	54,251	35,867	46,848	57,649	58,859	60,095	61,357	62,646	63,961
7	Business - Travel - Lodging	62,299	102,558	65,223	54,259	55,398	56,561	57,749	58,962	60,200
8	Business- Travel - Airfare	33,466	67,828	77,261	53,072	54,186	55,324	56,486	57,672	58,883
9	Remote System Access	49,922	47,902	43,976	42,998	43,901	44,823	45,765	46,726	47,707
10	Professional Dues	35,297	33,049	32,970	35,709	36,459	37,224	38,006	38,804	39,619
11	Wireless PC Card	39,063	37,091	28,661	33,308	34,008	34,722	35,451	36,195	36,955
12	Training - Travel -Other	13,436	23,020	8,843	26,942	27,508	28,086	28,675	29,278	29,893
13	Business - Meals	30,444	31,948	24,774	23,214	23,701	24,199	24,707	25,226	25,756
14	Training - Travel -Airfare	22,767	76,475	28,162	22,684	23,160	23,646	24,143	24,650	25,168
15	Training - Mileage Reimbursemen	24,464	66,813	20,469	22,612	23,086	23,571	24,066	24,572	25,088
16	Business - Travel - Other	27,328	21,235	20,972	20,061	20,482	20,912	21,351	21,799	22,257
17	Training - Meals	20,066	39,271	21,812	17,084	17,443	17,810	18,184	18,565	18,955
18	Business - Registration Fees	45,860	57,758	12,146	15,269	15,590	15,917	16,251	16,593	16,941
19	***Total - ERCOT***	$ 1,119,132	$ 1,551,900	$ 1,037,205	$ 1,020,655	$ 1,042,089	$ 1,063,973	$ 1,086,316	$ 1,109,129	$ 1,132,420
20										
21	FTEs	695	739	640	584	584	584	584	584	584
22										
23	Average Cost per FTE	$ 1,610	$ 2,100	$ 1,621	$ 1,747	$ 1,784	$ 1,822	$ 1,860	$ 1,899	$ 1,939
24										
25	Base Salaries	62,191,333	67,077,120	61,842,355	52,371,790	53,681,085	55,023,112	56,398,690	57,808,657	59,253,873
26										
27	% Cost of Base Salaries	1.80%	2.31%	1.68%	1.95%	1.94%	1.93%	1.93%	1.92%	1.91%

ERCOT Fiscal Year 2011 Budget

Other Expenses Workpapers

ERCOT Fiscal Year 2011 Budget

Other Expense Detail

Line		2009 Actual	2010 Budget	2010 Forecast	2011 Preliminary Budget	2012 Projected Budget	2013 Projected Budget	2014 Projected Budget	2015 Projected Budget	2016 Projected Budget
1	**ERCOT**									
2	Property Tax	$ 912,515	$ 1,325,706	$ 1,381,572	$ 2,443,048	$ 2,494,352	$ 2,546,733	$ 2,600,215	$ 2,654,819	$ 2,710,571
3	Insurance Premiums	1,742,811	1,876,837	1,832,555	1,832,639	1,871,124	1,910,418	1,950,537	1,991,498	2,033,319
4	Subscriptions - Data Services	1,036,655	1,118,266	1,165,327	1,260,459	1,295,529	1,317,722	1,341,705	1,365,428	1,389,649
5	Relocation Benefit	304,946	360,000	360,000	367,560	375,279	383,160	391,206	399,421	407,809
6	Publications - Media	163,940	114,305	99,740	186,654	151,584	129,391	105,408	81,685	57,464
7	Recruiting Expense	39,219	106,000	44,262	114,900	117,313	119,776	122,292	124,860	127,482
8	Job Posting Advertising	62,912	40,000	55,708	51,050	52,122	53,217	54,334	55,475	56,640
9	Report Printing	28,805	63,700	7,607	38,027	38,826	39,641	40,474	41,324	42,191
10	Dues	25,969	19,250	19,536	27,849	28,434	29,031	29,641	30,263	30,899
11	Reward & Recognition	3,752	65,000	22,674	25,525	26,061	26,608	27,167	27,738	28,320
12	Sponsored Meetings	25,730	35,500	29,163	24,303	24,814	25,335	25,867	26,410	26,964
13	Express Shipping	23,005	42,300	17,236	20,761	21,197	21,642	22,096	22,560	23,034
14	Postage & Delivery	9,803	18,150	7,650	7,375	7,530	7,688	7,849	8,014	8,182
15	Corporate Events	12,721	11,750	8,550	7,147	7,297	7,450	7,607	7,767	7,930
16	Miscellaneous	19,069	14,250	1,458	5,840	5,963	6,088	6,216	6,347	6,480
17	Tax - Sales, Excise & Use	69,627	-	41,614		-	-	-	-	-
18	Total	$ 4,481,479	$ 5,211,014	$ 5,094,652	$ 6,413,137	$ 6,517,423	$ 6,623,900	$ 6,732,612	$ 6,843,608	$ 6,956,934
19										
20										
21	Note:									
22	Subscriptions - Data Services account primarily includes weather and wind related forecasting and modeling services.									
23										
24										

ERCOT Fiscal Year 2011 Budget

Project Workpapers

ERCOT Fiscal Year 2011 Budget
Project Summary
($ in Thousands)

Line	Task	2009 Actual	2010 Budget	2010 Forecast	2011 Preliminary Budget	2012 Projected Budget	2013 Projected Budget	2014 Projected Budget	2015 Projected Budget	2016 Projected Budget
1	Project Priority List (PPL)	$ 43,661	$ 46,300	$ 54,092	$ 41,896	$ 20,000	$ 20,000	$ 25,000	$ 25,000	$ 20,000
2	Nodal Stabilization	-	-	-	7,532	-	-	-	-	-
3	Parking Deck	-	-	-	3,250	-	-	-	-	-
4	Deferred Defects & Workarounds	-	-	-	2,509	-	-	-	-	-
5	**Total - Project Costs**	**$ 43,661**	**$ 46,300**	**$ 54,092**	**$ 55,187**	**$ 20,000**	**$ 20,000**	**$ 25,000**	**$ 25,000**	**$ 20,000**
6										
7	Revenue-Fund Percentage	40%	40%	40%	40%	40%	40%	40%	40%	40%
8										
9	Revenue -Funded Project Costs	**$ 17,464**	**$ 18,520**	**$ 21,637**	**$ 22,075**	**$ 8,000**	**$ 8,000**	**$ 10,000**	**$ 10,000**	**$ 8,000**

ERCOT Fiscal Year 2011 Budget

Project Priority List (PPL)

2011 Priority	2011 Rank	Program Area	Source	Project Number	Capital Projects	2011 Budget Range	Cumulative Budget Range	Current Status	Description
1- Critical	**1**	DC	ERCOT	Various	Data Center Buildout	$30M-$40M	$30M-$35M	Planning / Execution	Data Center Buildout Project - 8 subprojects addressing storage, servers, tape backup, telecommunication, and network gear
1- Critical	**2**	CO	ERCOT	99911	Minor Cap - Critical	$500k-$1M	$30M-$35M	Not Started	Critical priority Minor Cap purchases
1- Critical	**3**	RO	Market	11002_01	Texas SET 4.0	$1M-$2M	$35M-$40M	Not Started	TX SET project to include reconnect / disconnect, AMS, Acquisitions, Meter Tampering
1- Critical	**4**	MO	ERCOT	90006_02	Information Lifecycle Mgmt – Mkt Systems, Archive, Reporting	$1M-$2M	$35M-$40M	Planning	Subproject of 90006_01 - optimizing data storage requirements for our commercial systems
1- Critical	**5**	IO	ERCOT	11003_01	Cyber Security Project #1	$500k-$1M	$35M-$40M	Not Started	Enhance a specific area of ERCOT's cyber security capability
1- Critical	**6**	MO	ERCOT	10052_01	Settlement System Upgrade	$1M-$2M	$35M-$40M	Planning	Replace the current application code with an optimized, self-supported solution. Includes only the conversion of code -- no enhancements.
1- Critical	**7**	CO	ERCOT	11004_01	Cyber Security Project #2	$250k-$500k	$35M-$40M	Not Started	Enhance a specific area of ERCOT's cyber security capability
1- Critical	**8**	IO	ERCOT	11005_01	IT Security Infrastructure Upgrade	$100k-$250k	$35M-$40M	Not Started	Upgrade a specific component of the IT security infrastructure
1- Critical	**9**	RO	PUCT / Market	11006_01	MarkeTrak Upgrade and Enhancements (PLANNING)	$100k-$250k	$40M-$45M	Not Started	Enhance MarkeTrak application for new PUCT requirements and other enhancements requested by market participants. Examples: new subtypes for Expedited Switch Rescission and Meter Tampering, improved data validation, and AMS usage parameters
2-High	**10**	RO	ERCOT	50088_01	Data Research and Reporting	$1M-$2M	$40M-$45M	Execution	Transition of ETS reporting from Data Archive to Enterprise Data Warehouse - Final stage of project
2-High	**11**	MO	ERCOT	10055_01	Data Agg Performance Improvements	$250k-$500k	$40M-$45M	Initiation	New project to address data aggregation processing performance risk Expected to start in 2010 and conclude in 2011
2-High	**12**	CO	ERCOT	10031_01	Enterprise Records Management Automation (ERMA)	<$50k	$40M-$45M	Execution	Provide a centralized record management repository for ERCOT with email integration.

Cutline

ERCOT Fiscal Year 2011 Budget

Project Priority List (PPL)

2011 Priority	2011 Rank	Program Area	Source	Project Number	Capital Projects	2011 Budget Range	Cumulative Budget Range	Current Status	Description
2-High	**13**	IO	ERCOT	New	IDM (databases only)	$500k-$1M	$40M-$45M	Not Started	Eliminate maintenance of two systems to control access to ERCOT systems.
2-High	**14**	MC	ERCOT	New	Minor Cap - High	$250k-$500k	$40M-$45M	Not Started	High priority Minor Cap purchases
2-High	**15**	CO	ERCOT	New	Cyber Security Project #3	$250k-$500k	$40M-$45M	Not Started	Enhance a specific area of ERCOT's cyber security capability
2-High	**16**	IO	ERCOT	New	Oracle Access Management	$250k-$500k	$40M-$45M	Not Started	Replace a manual effort carried out by the DBA's.
2-High	**17**	IO	ERCOT	New	Cyber Security Project #4	$100k-$250k	$40M-$45M	Not Started	Enhance a specific area of ERCOT's cyber security capability
2-High	**18**	MO	Market/ ERCOT	90015_01	Web-enabled Registration	$100k-$250k	$40M-$45M	Not Started	Create an interface that MPs (and potential MPs) can use to electronically submit and update registration data post nodal go-live.
2-High	**19**	IO	ERCOT	New	Tripwire	$100k-$250k	$40M-$45M	Not Started	Tripwire has been deployed for approximately 3 years. To garner further benefit to our investment we would like to deploy a new utility Tripwire has available called Log Center.
2-High	**20**	IO	ERCOT	New	Storage Replication Strategies	$50k-$100k	$40M-$45M	Not Started	Resize Ptest and Itest environments
2-High	**21**	MO	ERCOT	90017_01	ERCOT.com CMS Replacement	$250k-$500k	$45M-$50M	Not Started	Replace the Serena Collage application and Market Information Repository (MIR)
2-High	**22**	MO	ERCOT	10006_01	EPS Meter DB Redesign	$500k-$1M	$45M-$50M	Not Started	Move departmental EPS Meter database and web views due to unsupported compatibility.
2-High	**23**	IO	ERCOT	New	Secure Storage Bldg	$250k-$500k	$45M-$50M	Not Started	Facilities secured storage and shop
2-High	**24**	IO	ERCOT	New	Blue Bldg Reconfig	$100k-$250k	$45M-$50M	Not Started	Blue Building reconfiguration
2-High	**25**	CO	ERCOT	10039_01	Physical Security Project #1	$250k-$500k	$45M-$50M	Not Started	Enhance a specific area of ERCOT's physical security

ERCOT Fiscal Year 2011 Budget

Project Priority List (PPL)

2011 Priority	2011 Rank	Program Area	Source	Project Number	Capital Projects	2011 Budget Range	Cumulative Budget Range	Current Status	Description
3-High/Med	**26**	MC	ERCOT	New	Minor Cap - Other	$250k-$500k	$45M-$50M	Not Started	Lower priority Minor Cap items
3-High/Med	**27**	IO	ERCOT	New	OS Upgrades	$250k-$500k	$45M-$50M	Not Started	Upgrade Windows, Linux, AIX and other supporting applications to the latest versions.
3-High/Med	**28**	MO	ERCOT	New	AppWorx Upgrade	TBD	$45M-$50M	Not Started	Upgrade to newer version.
3-High/Med	**29**	RO	ERCOT	New	Rearchitecture of Zonal TIBCO Framework (to be consistent with Nodal)	TBD	$45M-$50M	Not Started	Upgrade to Zonal TIBCO to be consistent with Nodal TIBCO
3-High/Med	**30**	RO	ERCOT	10004_01	Retail Testing Website Enhancement	$250k-$500k	$45M-$50M	Not Started	ERCOT upgrade to transition to Enterprise Architecure approved infrastructure. No functional changes planned.
3-High/Med	**31**	RO	ERCOT	New	Siebel Table Split	TBD	$45M-$50M	Not Started	The objective of this project is to make modifications to the Siebel data model to gain performance efficiencies and comply with Siebel technical data architecture guidelines.
3-High/Med	**32**	RO	ERCOT	New	Siebel Upgrade	TBD	$45M-$50M	Not Started	The objective of this project is to upgrade Siebel to the latest Siebel release.
3-High/Med	**33**	RO	ERCOT	10050_01	TIBCO Upgrade	$100k-$250k	$45M-$50M	Not Started	This project will upgrade ERCOT's TIBCO infrastructure and underlying Linux Operating System (Zonal only).
3-High/Med	**34**	IO	ERCOT	New	TCC2 Delivery Room Reconfig	$250k-$500k	$45M-$50M	Not Started	TCC2 Delivery Room reconfiguration
3-High/Med	**35**	IO	ERCOT	New	TCC2 Cube Reconfig	$500k-$1M	$50M-$55M	Not Started	TCC2 Cube reconfiguration
3-High/Med	**36**	IO	ERCOT	New	TCC2 Hope Room Reconfig	$250k-$500k	$50M-$55M	Not Started	TCC2 Hope Room reconfiguration
3-High/Med	**37**	IO	ERCOT	New	TCC1 Cube Reconfig	$500k-$1M	$50M-$55M	Not Started	TCC1 1st floor cubicle reconfiguration
3-High/Med	**38**	IO	ERCOT	New	Windows 7	$100k-$250k	$50M-$55M	Not Started	Windows 7 upgrade
4-Medium	**39**	MO	Market	New	Default Uplift Process	TBD	$50M-$55M	Not Started	Modify the existing Lodestar uplift functionality to support uplift of defaults on DAM Invoices and RTM Invoices through a Default Uplift Invoice, in an automated fashion.
4-Medium	**40**	MO	Market	10008_01	Enhancements to API for Disputes	TBD	$50M-$55M	Not Started	Enhance the API Disputes functionality for updates, search and other functions post nodal go-live.
4-Medium	**41**	MO	ERCOT	90006_03	System Right-Sizing for ILM	TBD	$50M-$55M	Not Started	All systems coming online with Nodal - need to establish ongoing maintenance activities. Replication from Nodal systems. CRR, CMM sources only.

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Project Priority List (PPL)

2011 Priority	2011 Rank	Program Area	Source	Project Number	Capital Projects	2011 Budget Range	Cumulative Budget Range	Current Status	Description
4-Medium	**42**	CO	ERCOT	70015_01	Cyber Security Project #5	$100k-$250k	$50M-$55M	Not Started	Enhance a specific area of ERCOT's cyber security capability
4-Medium	**43**	RO	ERCOT	New	Test Automation Tool Upgrade	TBD	$50M-$55M	Not Started	Affects anything using WinRunner today
4-Medium	**44**	CO	ERCOT	10030_01	Vendor Contract Information Database Review	<$50k	$50M-$55M	Not Started	Move the management of vendors and vendor contracts from the current, in-house developed application to a best-practice model
4-Medium	**45**	CO	ERCOT	New	Cyber Security Project #6	TBD	$50M-$55M	Not Started	Enhance a specific area of ERCOT's cyber security capability
4-Medium	**46**	CO	ERCOT	New	Cyber Security Project #7	TBD	$50M-$55M	Not Started	Enhance a specific area of ERCOT's cyber security capability
4-Medium	**47**	CO	ERCOT	10049_01	Collateral Calculation Enhancement	$100k-$250k	$50M-$55M	Not Started	
9-Parking Lot		RO	PUCT	90007_01	Advanced Metering – Long-Term Settlement Solution	TBD	TBD	Not Started	
9-Parking Lot		MO	Market	10007_01	Verifiable Cost Management System (VCMS)	TBD	TBD	Not Started	
9-Parking Lot		CO	ERCOT	10029_01	Governance, Risk & Compliance (GRC)	TBD	TBD	Not Started	
9-Parking Lot		CO	ERCOT	10032_01	App Log Centralization	TBD	TBD	Not Started	
9-Parking Lot		CO	ERCOT	10043_01	BOD Material Preparation & BOD Resolution Tracking	TBD	TBD	Not Started	
9-Parking Lot		CO	ERCOT	10045_01	Document Preparation Software - Legal	TBD	TBD	Not Started	
9-Parking Lot		CO	ERCOT	10046_01	Lawson Pcard Module	TBD	TBD	Not Started	
9-Parking Lot		CO	ERCOT	New	Open Enrollment	TBD	TBD	Not Started	
9-Parking Lot		IO	ERCOT	New	Oracle Upgrade	TBD	TBD	Not Started	
9-Parking Lot		MO	ERCOT	New	Rewrite REC Program	TBD	TBD	Not Started	

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Proposed Nodal Post Go-Live Changes

Line	Task	2011 Budget Estimate	HW/SW	Vendor	FTE	Staff Augmentation	Notes
1	Nodal Stabilization - Operational Response, Production Issues and Stability	$ 11,263,817	$ -	$ 6,817,500	$ 2,783,284	$ 1,663,033	
2	Daylight Savings Time & Planning Model Functionality	41,276	-	-	41,276	-	
3	Zonal Decommissioning Efforts	307,008	-	-	307,008	-	
4	Deferred Defects & Workarounds	2,509,110	-	1,044,147	1,220,396	244,567	50% defects delivered in 2011
5	Parking Deck - Initial Release Impact Analysis/Requirements/Design	3,250,000	-	650,000	1,300,000	1,300,000	Planning/Design activities in 2011
6	Hardware & Software Maintenance	7,820,047	7,820,047	-	-	-	
7	**Post Go-Live Support Total**	**$ 25,191,258**	**$ 7,820,047**	**$ 8,511,647**	**$ 5,651,964**	**$ 3,207,600**	

Nodal Post Go-Live Support

1. Nodal Stabilization Project

1.1. Objectives

- Provide support for increased volume of questions and disputes
- Ensure quick analysis for Nodal issues
- Deliver system functionality based on priority and urgency
- Ensure adequate resources to quickly address system performance and stability issues

1.2. Scope Definition

1.2.1. In Scope

Scope Item	Description	Notes/Assumptions
Operational Response, Production Issues and Stability	Includes ERCOT Business and IT labor to address spikes in day-to-day operations to support volume of work above normal expectations: • Response to stakeholder questions / external communications • Issue analysis to address impacts across grid, markets, services, finance, reporting and legal functions • Expected higher volume of settlement disputes due to market start-up and complexity • Anticipated additional training and workshops to respond to stakeholder needs • Remediation of production issues	• Stabilization is defined as 7-month period Dec 2010 – Jun 2011 • IT vendor costs are for period Dec 2010 – Dec 2011

1.2.2. Out of Scope

- Any base operations activities supporting normal day-to-day operations
- Other components of the Nodal Post Go-Live Support effort
    - Delivery of Daylight Savings Time and Planning Model functionality
    - Decommission of zonal wholesale systems
    - Nodal deferred defects
    - Nodal Parking Deck items
    - HW & SW operations maintenance for Nodal systems
- Other capital projects on the 2011 PPL

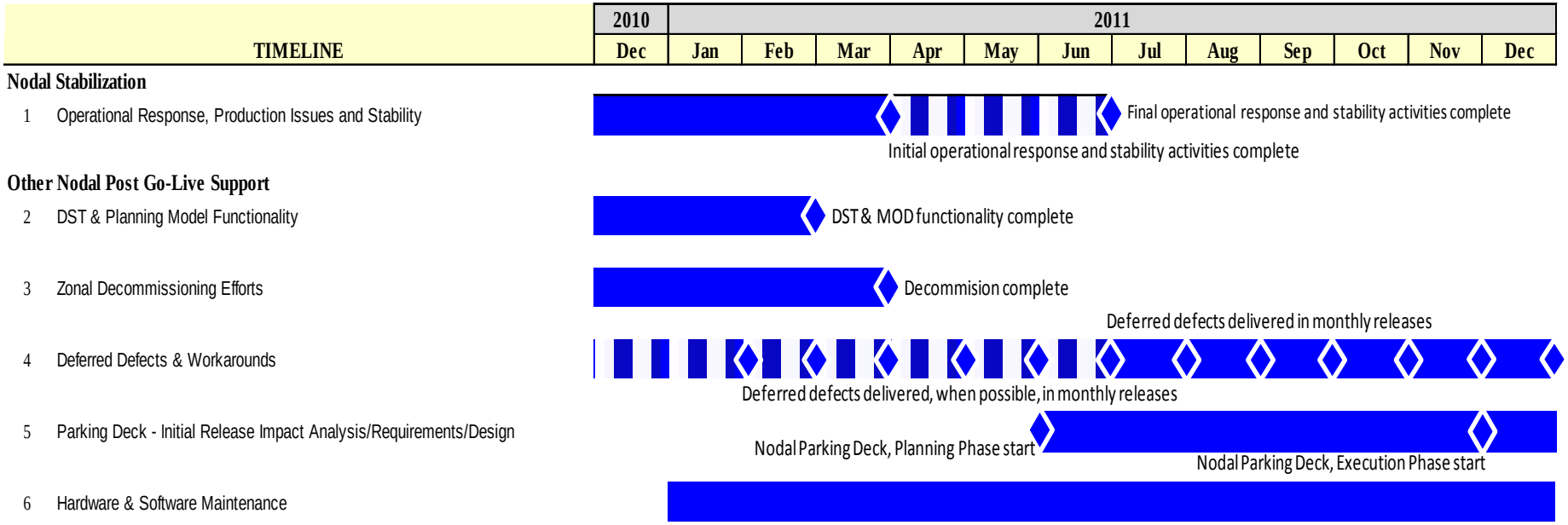
2. Other Nodal Post-Go Live Support Components

Scope Item	Description	Notes/Assumptions
Delivery of Daylight Savings Time and Planning Model functionality	Includes development, testing and implementation to address Daylight Savings Time (DST) and Planning Model (MOD) functionality required by Q1 2011	• Targeting a 2-3 month effort to begin in Dec 2010 and deliver by Mar 2011
Decommission of zonal wholesale systems and components	Includes the complete decommission (code, data, instances) of the following zonal wholesale systems that will no longer be used post nodal go-live: • TCR (TCR auction Solver (LINDO), TCR GUI, Database) • OS • MPIM Zonal Code • EMMS (EMS & MMS) • ICCP • SMP (SCADA Management Platform) • Zonal OTS • Zonal BTS • MOS – Sender & Listener • Zonal Weather/Load Forecast • Zonal DC Tie • ERCOTPROD domain (required by sender) equivalent in other environments (itest/dev) • MOSPublic • MOS TML (ERCOT PUC & ERCOT PRP) • Zonal Dynamic Ratings • Report Runner • Removal of NON_Retail TML links • Retail Lite Environment • EIS Collateral Calc (FINANCE Schema in ISM) • ISM replication components (code components only, no data destruction) • Lodestar Appworx zonal jobs • Lodestar IT0xNDL itest databases • Nodal iTest MIR instance • PI code • Zonal Siebel Code	• Planning to start in Dec 2010 • Decommission beginning Jan 2011 (2-3 month duration over maintenance release windows)

Scope Item	Description	Notes/Assumptions
	• All EMIL Products (extracts, reports, web services, etc.) identified as "Zonal - will retire" including historical files in MIR, except those under RRS legal retention requirements. • NDC (Schema in ISM, consists of views pointing to ERCOT schema in ISM) • EIS ETL • EIP/Retail Tibco code responsible for wholesale/EMS/data extract. • Applicable Appworx jobs for listed components, products & jobs • Wholesale FTP job on intranet server • Migrate CERT servers to MOTE/SOTE VLAN; combine services; decommission redundant servers/services. • Removal of legacy pre-go live data from NPROD • Any other "only-zonal" component, product, system, data, database, etc, that is deemed disposable after nodal go-live	
Delivery of Nodal Deferred Defects & Workarounds	Includes development, testing and implementation to remediate 50% of Nodal deferred defects, based on priority, for the following systems: • EMS – estimated 10 month effort • CMM – estimated 3 month effort • EIP – estimated 4 month effort • DAM – estimated 1 month effort • MOD – estimated 1 month effort • NMMS – estimated 2 month effort • MMS – estimated 3 month effort • REG – estimated 1 month effort • S&B – estimated 3 month effort • CSI – estimated 1 month effort	• Assumes 50% of deferred defects will be remediated in 2011, with majority of concentration between Jun-Dec 2011 • Where possible, defect will be addressed sooner, to coincide with Stabilization releases • All systems except for EMS are targeting a 3-6 month effort • EMS will have target 5 releases and require a 10-month effort
Nodal Parking Deck – Initial Release Planning/Design	Impact analysis, requirements, and design activities to address Parking Deck items as part of the initial release (note: this list is not inclusive of all Parking Deck items; the items listed below are proposed due to shared functionality/applications base, as well as some high priority stand-alone items) • NPRR208 – Registration and Settlement of Distributed Generation (DG) Less Than 1 MW • NPRR258 – Sync with PRR824 and PRR833 and Additional Clarifications	• Final list of items will require Market confirmation • Execution and delivery will be funded under future year PPL • Other parking deck items not included in this effort, will also be delivered as part of future year PPL • Cost estimate assumes mid-range estimate of cost

Scope Item	Description	Notes/Assumptions
	• NPRR131 – Ancillary Service Trades with ERCOT • NPRR207 – Unit Deselection • NPRR146 – ICCP Telemetry Information Submittals • NPRR210 – Wind Forecasting Change to P50, Sync with PRR841 • NPRR222 – Half-Hour Start Unit RUC Clawback • NPRR251 – Sync of PRR845, Definition for IDR Meters and Optional Removal of IDR Meters at a Premise Where an Advanced Meter Can be Provisioned • NPRR181 – FIP Definition Revision • SCR759 – acLineSegment Name Length Increase in Information Model Manager (IMM) • NPRR240 – Proxy Energy Offer Curve • SCR755 – ERCOT.com Website Enhancements • NMMS API • CRR API • MMS Multiple Network Models • Large Wind Power Production Ramp Forecasting Phase 2 • TML Transition to MIS • Update Credit PFE (Potential Future Exposure) Model	
HW & SW Maintenance	Year 1 of hardware and software maintenance associated with Nodal systems	• From 2011 IT budget submission

3. Post Go-Live Support – High-level Timeline/Milestones



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Nodal Post Go-Live Support - Daylight Saving Time & Planning Model Defects

Time and Cost Estimate - Project Information and Summary

PART A Project Information

Project Number:	TBD		
Project Title:	Nodal Deferred Defects	**Sponsor's Name:**	Cleary
Estimator's Name:	Martinez/Lowe	**Estimate Date:**	8/30/2010
Department:	Nodal PMO - Integration and Systems		

What are We Doing: DST and MOD (Planning Model) defects before Q111 end. This document provides a bottom up estimate of the effort it requires to resolve these before Mar 2011.

Why are We Doing This: These are required to be resolved before DST (short day) and 2011 Planning Model Go-Live.

Why Now: These were originally deferred to 2011 since they were not needed on Operating Day 1 - 12/01/2010, but will be needed before DST happens in Mar 2011.

Estimated Cost

Internal Labor	$38,720
External Labor	-
Hardware	-
Licenses	-
Maintenance	-
Other	-
Sub-Total	$38,720
Est. Finance Charges	2,556
TOTAL	$41,276

Estimated Effort (Hrs)

Internal	352.0
External	-

Estimated Project Duration

Weeks	12.0

Labor Rates

Internal	100.0
External	

Key Risks

1.) Nodal go-live emergencies may consume business and development resources which will delay and
2.) Nodal Operations and Dispute volumes require more external resources than estimated for test
3.) Environment availability and coordination with other mandated or business required efforts could
4.) Infrastructure projects need careful coordination with code releases

Key Assumptions

1.) Based on $100 blended rate to account for incremental staff aug. as needed
2.) Assumes 10% Contingency for bug iterations

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Nodal Post Go-Live Support - Zonal Decommission

Time and Cost Estimate - Project Information and Summary

PART A Project Information

Project Number:	TBD		
Project Title:	Decommission of Zonal Wholesale Systems	**Sponsor's Name:**	
Estimator's Name:	Martinez/Lowe	**Estimate Date:**	9/7/2010
Department:	TBD		

What are We Doing: The objective is to eliminate zonal wholesales systems and components that will no longer be used post nodal go-live.

Why are We Doing This: Decommissioning of the zonal systems will be necessary in order to eliminate the cost overhead of support, maintenance and storage required to continue to service these systems that are no longer used. Leaving these systems active too long may risk interference with daily operations and eat into support resources better used for nodal operations or other projects.

Why Now: After go-live of the redesigned ERCOT wholesale market (Nodal), certain ERCOT systems and components that were only applicable to zonal wholesale operations will become disposable and need to be decommissioned.

Estimated Cost

Internal Labor	$288,000
External Labor	-
Hardware	-
Licenses	-
Maintenance	-
Other	-
Sub-Total	$288,000
Est. Finance Charges	19,008
TOTAL	$307,008

Estimated Effort (Hrs)

Internal	2,880.0
External	-

Estimated Project Duration

Weeks	15.0

Labor Rates

Internal	100.0
External	150.0

Key Risks

1.) Clean up of some extracts, reports, files, etc, may be constrained by the need to retain records (as defined

Key Assumptions

1.) Assumes 3.5 month effort

2.) Assumes systems on scope tab

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Nodal Post Go-Live Support - Deferred Defects

System	Defects to be Resolved by Go-Live	Deferred Defects	Comments
MMS	Total : 17	Total: 63	***Delivery Schedule*** •17 Defects to be resolved by 11/05 ***Deferred Defects*** •51 Deferred defects require a workaround, 48 workarounds in place and exercised. 3 in progress to complete by 10/05
EMS	Total: 19	Total: 347	***Delivery Schedule*** •19 Defects to be resolved by 11/05 ***Deferred Defects*** •119 Deferred defects require a workaround, 116 workarounds in place and exercised. 3 in progress to complete by 10/05
COMS	Total: 2	Total: 62	***Delivery Schedule*** •2 Defects to be resolved by 10/17 (test completion on 10/08, must migrate on Retail Outage Cycle) ***Deferred Defects*** •34 Deferred defects require a workaround, all 34 workarounds in place and exercised
CMM	Total: 1	Total: 51	***Delivery Schedule*** •1 Defect to be resolved by 10/08 ***Deferred Defects*** •12 Deferred defects require a workaround, all 12 workarounds in place and exercised
MIS	Total: 24	Total: 9	***Delivery Schedule*** •24 Defects to be resolved by 10/15/2010 ***Deferred Defects*** •2 Deferred defects require a workaround, both workarounds in place and exercised
NMMS	Total: 0	Deferred: 10	***Delivery Schedule*** •None

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Nodal Post Go-Live Support - Deferred Defects

System	Defects to be Resolved by Go-Live	Deferred Defects	Comments
			Deferred Defects •9 Deferred defects require a workaround, all 9 workarounds in place and exercised
OS	Total: 1	Total: 125	***Delivery Schedule*** •1 Defect to be resolved by 10/08 ***Deferred Defects*** •39 Deferred defects require a workaround, all 39 workarounds in place and exercised
CRR	Total: 3	Total: 5	***Delivery Schedule*** •3 Defects to be resolved by 10/08 ***Deferred Defects*** •3 Deferred defects require a workaround, all 3 workarounds in place and exercised
EIP	Total: 4	Total: 62	***Delivery Schedule*** •4 Defects to be resolved by 10/15 ***Deferred Defects*** •7 Deferred defects require a workaround, all 7 workarounds in place and exercised
CDR	Total: 16	Total: 7	***Delivery Schedule*** •16 Defects to be resolved by 10/15 ***Deferred Defects*** •4 Deferred defects require a workaround, all 4 workarounds in place and exercised
EIS	Total: 17	Total: 8	***Delivery Schedule*** •12 Defects to be resolved by 10/15 • 5 defects to be resolved by 11/19 ***Deferred Defects*** •5 Deferred defects require a workaround, all 5 workarounds in place and exercised

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Nodal Post Go-Live Support - Parking Deck

	Item	Desc	Status	Priority	Impacted Systems	Details
Board Approved Items	NPRR208	Registration and Settlement of Distributed Generation (DG) Less Than 1 MW	Board approved 7/20/10	Critical	COMS	Revises the formula for Settlement of electricity consumption and out-flow by Customers with renewable Distributed Generation (DG). The revised formula fulfills the provisions of PUC Rule 25.213 that requires ERCOT to develop DG Settlement processes that "reflect the time of generation." In order to fully synchronize the Protocols with the intent of the Rule as soon as practicable, ERCOT supports implementation of the grey-boxed language in NPRR208 as a "Critical" priority.
	NPRR131	Ancillary Service Trades with ERCOT	Board approved 1/19/10	High	MMS, CMM, COMS, EIP, EDW, CDR	Allows QSEs representing resources to procure A/S in the DAM
	NPRR146	ICCP Telemetry Information Submittals	Board approved 6/15/10	High	NMMS	Allows NOMCRs that modify only ICCP data object names to be submitted within 15 days of the network model load date Possible resolution with business process changes
	NPRR181	FIP Definition Revision	Board approved 1/19/10	High	MMS, COMS, EIP	Revises the definition of Fuel Index Price (FIP) to correctly account for the timing difference between ERCOT's application of FIP in its systems (midnight to midnight) and the timing of natural gas prices reflected by the index (i.e., hour ending 1000 to 0900).
	NPRR207	Unit Deselection	Board approved 7/20/10	High	MMS	Defers two changes: 1 – hourly RUC notification of recommended but deselected resources in RUC 2 – prevent QSEs from increasing Energy Offer Curves after a RUC Notification
	NPRR210	Wind Forecasting Change to P50, Sync with PRR841	Board approved 6/15/10	High	COMS	This NPRR changes the wind forecast from the 80% probability to 50%. This change is also effective in determining if a QSE is capacity short. The boxed language changes the capacity short calculation back to the 80% forecast.
	NPRR222	Half-Hour Start Unit RUC Clawback	Board approved 7/20/10	High	MMS, COMS	Removed from original NPRR207 language. Removes RUC clawback on Half-Hour Start Units in certain circumstances. Also changes the RUC Clawback on Half-Hour Start Units that did not participate in the DAM to 50%.
	NPRR153	Generation Resource Fixed Quantity Block Offer	Board approved 1/19/10	Medium	MMS, EIP, EDW, CDR	Allows a fixed quantity and time block bid for Offline Non-Spin with the contingency that all hours be purchased in the block
	NPRR164	Resubmitting Ancillary Service offers in SASM	Board approved 1/19/10	Medium	MMS, EIP, EDW, CDR	Allows QSEs to take full advantage of A/S and energy co-optimization in the DAM and participate in the Supplemental Ancillary Service Market (SASM) by being able to resubmit A/S Offers at the higher of DAM MCPC or its offer price in the DAM.
	SCR755	ERCOT.com Website Enhancements	Board approved 2/16/10	Medium	ERCOT.com, Web Services, Collage	Implementation of 10 improvements to ERCOT.com received in the 2008 Market Participant Survey. Includes document archiving, search improvements, training, meeting calendar enhancements, and RSS feeds.

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Nodal Post Go-Live Support - Parking Deck

	Item	Desc	Status	Priority	Impacted Systems	Details
In-flight Items	NPRR240	Proxy Energy Offer Curve	Pending at Board	High / Medium	MMS, CDR (possibly others)	One grey-box section: "Energy Offer Curves that were constructed in whole or in part with proxy Energy Offer Curves shall be so marked in all ERCOT postings or references to the energy offer."
	NPRR241	Aggregate Incremental Liability (AIL) Calculation and Credit Reports Publish Corrections	Pending at Board	Medium	TBD	One grey-box section: Changes the alternate posting format for 3 reports from XLS to XML (in addition to PDF).
	NPRR251	Sync of PRR845, Definition for IDR Meters and Optional Removal of IDR Meters at a Premise Where an Advanced Meter Can be Provisioned	Pending at Board	High	TBD	Grey-boxes language requiring IDR meters if usage warrants. Current language exempts situations where Advanced Meters have been installed. Also gray-boxes related reporting requirements for ERCOT.
	NPRR256	Synchronize Nodal Protocols with PRR787, Add Non-Compliance Language to QSE Performance Standards	Pending at NATF	TBD	EMS, EDW	Seeks to exempt generation resources from GREDP calculation during testing and qualification periods. Not really a sync because additional exemptions to GREDP (Generation Resource Energy Deployment Performance) calculation are included
	NPR257	Synchronization with Nodal Operating Guide Section 9, Monitoring Programs	Pending at PRS	TBD	CDR, EDW (possibly others)	Grey-boxes multiple sections of the Nodal Protocols to align with Nodal Operating Guide Section 9, Monitoring Programs. Through NOGRR025, ERCOT agreed to provide certain reports either during market trials, on a limited basis for specific intervals as requested by the PUCT, TRE and the IMM, or after TNMID.
	NPRR258	Sync with PRR824 and PRR833 and Additional Clarifications	Pending at PRS	Critical	TBD	Grey-boxes language to change the calculation of GREDP PDCWG suggests priority of "critical"
	NPRR260	Providing Access to MIS Secure Area to MIS Registered Users	Tabled at PRS	TBD	Siebel, MPIM	Makes it possible for consultants, power marketers, aggregators, consumers and universities to get access to the MIS Secure area (without doing so by getting a digital certificate through a registered Market Participant)
	NOGRR034	Rescind Telemetry Performance Calculation Exclusions	Pending at Board	Medium	TBD	Grey-boxes language that allows QSE and TSPs to request removal of telemetry from Telemetry Standard performance metrics when certain situations exist.
	NOGRR050	Resolution of Reporting Issues Related to NPRR219	Pending at PRS	TBD	TBD	Grey-boxes several transmission Outage scheduling data elements from ERCOT reports until such time ERCOT systems can be modified to include only Transmission Service Provider's (TSP's) Outages in the reports
	SCR759	acLine Segment Name Length Increase in Information Model Manager (IMM)	Pending at TAC	High	IMM, CRR, MMS (possibly others)	Increases the character size of the acLine Segment type under the Line Equipment Container from 2 to 14 in the IMM. Allows modeling of multi-section line segments. Not a major impact to IMM but cascading impacts to CRR and MMS Desire expressed at ROS to have this implemented for Planning Go-Live (~March 2011) Primarily requested by Centerpoint.

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Nodal Post Go-Live Support - Parking Deck

	Item	Desc	Status	Priority	Impacted Systems	Details
Additional Items for Consideration		Wind Cost Allocation			TBD	Multiple discussions at TAC / Board from 1/20/2009 to 3/16/2010 WMS endorsed "Wind Plus Load Ratio Share" proposal (wind generators receive a hedgeable A/S obligation for responsive reserves, non-spinning reserves, regulation up and regulation down.)
		Deferred NOGRR025 Reports			Various	Completion of NOGRR025 reports targeted for post-go-live development – synchronization effort underway to grey-box deferred reports in Nodal Operating Guide
		NMMS API			NMMS	System to system interactions for the uploading and possible future downloading of data between ERCOT and Market Participants with minimal manual intervention. NOMCR submittals (upload) including data submittals, one-line submittals and CIM XML submittal. Various other submittals such as Rating Methodologies, SPS documents, etc.
		CRR API			CRR	System to system interactions for the uploading and downloading of data between ERCOT and Market Participants without manual intervention. Nomination submittals (upload), Auction bid/offer submittals (upload), CRR Network Model files (download), CRR ownership records (download), CRR Auction results (download).
		MMS Multiple Network Models			MMS	MMS does not currently have the capability to concurrently support separate network models for Operating Day and Day-Ahead MMS processes (DAM & RUC)
		Add PSS Status to RARF			TBD	Automation of manual reporting process created by NPRR156. Current process involves the posting of a spreadsheet on PSS status when operators are notified of a change in PSS status.
		Automated Default Uplift Invoice			COMS	Automation of uplift invoice in the event of a market participant default. Current approach is manual.
		EILS Enhancements			TBD	Automate the ERCOT Energy Interruptible Load Service reporting process in expectation of higher volumes with AMI.
		Load Participation -SCED			TBD	Functionality to be considered for post-go-live development
		EMS Upgrade			EMS	Upgrade EMS from v2.3 to v2.5/v2.6 - Change operating system from Windows to Linux AREVA ceases support of v2.3 in June 2011 (extended support can be negotiated) NERC CIP-007-1 R3 requires that ERCOT assess all security patches within 30 days of a patch release for all critical cyber assets, including EMS servers. ERCOT has taken the stance that to meet this requirement it must set a goal of deploying all patches within 30 days. The current number of Windows servers within the CCA perimeter makes this unmanageable due to the number of patches issued for Windows and its peripheral applications, and the relative severity of security breaches with Windows. The current zonal EMS system in production has received Technical Feasibility Exception (TFE) from NERC based on our commitment to Nodal migration. However, since the Nodal EMS system may become unsupported, we need to reapply for a TFE for which we may need to demonstrate that an upgrade project is underway.
		Deferred Defects			Various	Defects not addressed during Nodal stabilization period (Approx. 770 deferred defects as of Aug) Review underway to confirm issues and confirm acceptable workarounds
		Lg. Wind Power Prod - Ramp Forecasting Ph 2			TBD	Phase 2 of the project that built a display for ERCOT operators to indicate periods of time within the next 6 hours during which there is a high risk for a large wind power production ramp to occur
		TML Transition to MIS			MIS	Upon go live, most applications that are currently available through TML will migrate to MIS and will only be accessible to MPs through the MIS portal. RMS has requested that Zonal Reports, Find ESI ID, Find Transactions, and Transaction submission be accessed through TML until MIS has had sufficient time to stabilize.
		Move Price Validation Tool (PVT) to Svr App			TBD	Functionality to be considered for post-go-live development
		PVT Enhancements			TBD	Enhancements needed based on results of market testing and Nodal implementation: reporting, user interface changes, etc.
		PVT Reporting Tools			TBD	Functionality to be considered for post-go-live development
		Update Credit PFE (Potential Future Exposure) Model			TBD	With the implementation of Nodal, ERCOT's portfolio credit risk analysis for the Nodal market will include the following risk factors: (1) Price volatility analysis for the Day Ahead Market, (2) Bid and offer volume analysis in the Day Ahead Market, and (3) Value of Congestion Revenue Rights