

Nodal Program Update

Mike Cleary Chief Operating Officer

ERCOT Board of Directors 15 June 2010

Agenda

- Program Status
- Market Readiness
- Financials
- Appendix

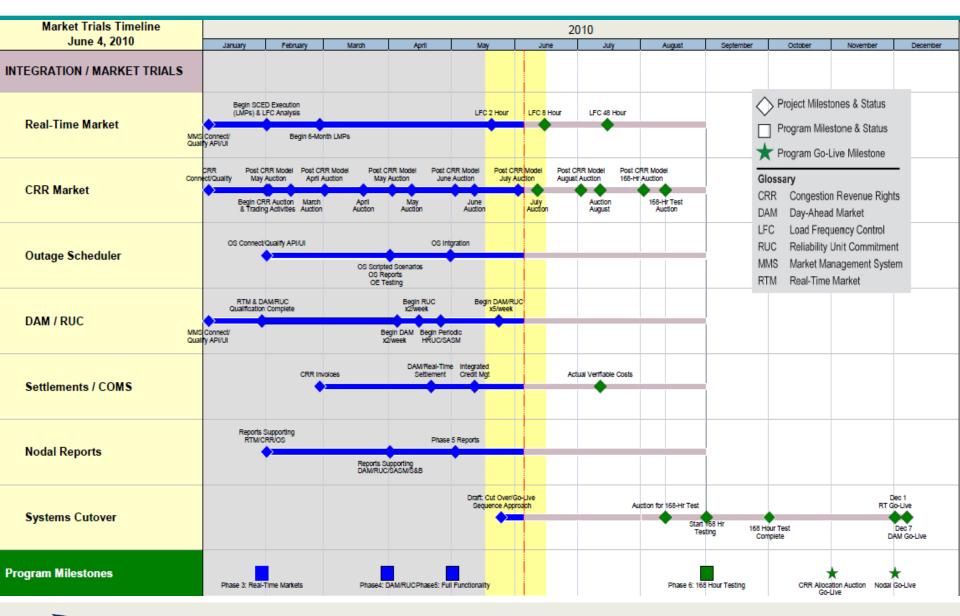


Integrated Nodal Timeline – Go-Live December 1st, 2010

Nodal Program Timeline				2009									2	2010						
June 4, 2010	May	Jun Ju	ul Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Systems																				
Applications MMS Exectional Accordance Testing			MMSS FAT C	tomplete																
MMS Functional Acceptance Testing			CMM 4.1 FAT	Complete						CMM 42 FAT Cor	mpiete									
CMM Functional Acceptance Testing										•										
Independent Market Monitor															-					
Break Fix																			μ.	
SEM		PAT SAT	T EDS											~	Miestone & Status		Complete On track			
System & External Verification Testing		+ 4												-	ve Intarim External Mile ve Ga-Live Milestone	lostono & Status	Not on track, I	but will not affect mit		
SEM Go-Live		SEM Modeling Cuidelin	Final Nodal CIM Mo	SEM Go-Live del Posted												GLOSSARY	Y	will offect milestone a		
Integration (INT) & Market Trials (MT) Phases			TAC/800 Approval	of SEM Go-Live									-	CMM Credit CRR Cane	mmen Information Mod Icit Monitoring Manager regestion Revenue Figh	idel	MVS Marke MRS Marke NPROD Nedal	et Management Syste et Roadiness Series (Production	1971 - 11	
INT 2.1 Testing				Pha	tase 2.1 Kickoff	Phase 2.1 INT T	Testing Complete							EDS Early FAT Fund	y-Ahead Market Its Delivery System Instignal Acceptance Ter	esting	RTM Real-1 RUC Reliab SAT Site A	Time Market billity Unit Commitment Icceptance Testing	«	
Market Trials 2.1 External Testing					<>			Phase 3 INT Tes	MT Phase 2					LFC Lea	kl Frequency Centrol	Security Constrain	SEM Single	e-Entry Wodel		
INT 3 Testing								<	SCED											
Market Trials 3 External Testing							Phase	3 Kickoff			MT Phase 3 G	Complete								
INT 4 Testing										Ph	hase 4 INT Testing DAM	g Complete								
Market Trials 4 External Testing									Phase	4 Kickoff 🔷	x2Neek S&B RUCx2Neek	MT Phase 4 Co	omplete							
INT 5 Testing												Phase 5 INT Testi								
Market Trials 5 External Testing										Phas	ase 5 Kickoff 🔷	UTC-2hr	UFC-Shr	LFC-48hr	-	MT Phase 5	Complete			
INT 6 Tesing											Run Full I	Nodal Systems		+	+ Phan	as 6 INT Testing C	Complete			
Market Trials 6 External Testing														-	Start 168		•	+	MT Phase 6 Complete	
Readiness																168hr Te	et Complete		Compile 2	
Market Readiness			MP Training																	
External Outreach		-			induct Site Visits															
Market Training				MRS	1:2.1 Connectivity	ty Test			-	ARS 3: General Ma	arket Readiness			M	RS 4: 168 Hour Tee		Market Train	ning Complete		
Metrics Tracking & Assessment		Methos						Metrics	Mapped to MT1									Conduct Me	etics Reporting	
ERCOT Readiness									MT4 Ps	rocedures MTS P	Procedures	MT 5 Process		NERC:	ERO	ODT Personnel		ERT Post-Go	o-Live	
Internal Processes, Procedures & Training							MT3 Ph	P Complete		Complete Con	omplete O	Disgrama Com	rçişte	As of State		Theining	-	Transition Pi	Tarna	
Operational Readiness											4 Process ams Complete					MTB PhP Complete				
System Cut-Over											Draft1: C	Cut Over/Go-Live S			Dwn/Go-Live Seque	the design of				
Environment Configuration & Management					Phase NPROD			System Av Monitor		Spring DST Healthcheck	SLA Conforma	ance Monitoring		MOTE E	Environment	Approach.				
				Phase 3	2.1 Run Books Fai Heat	all DST althcheck	Phase	# 3,4 & 5 n Books			ervices Monitoring mance Verification 8			Open to Mark	rket Participants Periodical Perform	anna Mada - A				
Load & Performance; Failover & Fallback;			Phas	ae 2.1 Performance						Fallover/Sec	curity Testing		18		Periodical Perform Failover/Securi	rity Testing				
Security Testing					Phase 2.1 Security	1 Initial Texts	P	hase 3 Performer Failover/Securit	ance Verfication	n & Pta	ase 5 Performance Failover/Securit	e Verification &				Nodal		Binder	il Go-Live	
Program Milestones				*											- N		•	* 7	*	
Planning Nodal Enhancements			SEM	I Go-Live	Phase 2.1 Marks	tet Connectivity		Phase 3: Real-	Time Marketa	Phase 4		hase 5: Functionality	-	Pagning Node	Phase 6: 102	98 Hour Testing	CRR Alloc Go	cation Auction >-Live		



2010 Market Trials Timeline – Go-Live December 1st, 2010





168 Days to Go-Live

Market Trials has been running for 19 weeks Market Quality Testing and Operational Readiness

Achievements within Market Trials:

- CRR
 - Four monthly CRR auctions and one Balance of the Year auction have been completed and invoiced
 - August Auction in progress until July 17th
- Real Time Markets
 - SCED
 - Real Time settlements
- DAM / RUC
 - DRUC has been running in conjunction with DAM for 6 weeks
 - DAM Settlements are being executed
 - Settlement and extract data has been available since Mid-May
 - Continual strong participation from the Market Participants (Averaged 187 QSEs / DAM run)
 - DAM / RUC 5 times per wk
- Ancillary Services
 - SASM
 - Will run as needed with Ancillary Services
- Closed Loop LFC
 - 2 hour test occurred last month
- Credit
 - Credit Module went into effect on May 14th



168 Days to Go-Live

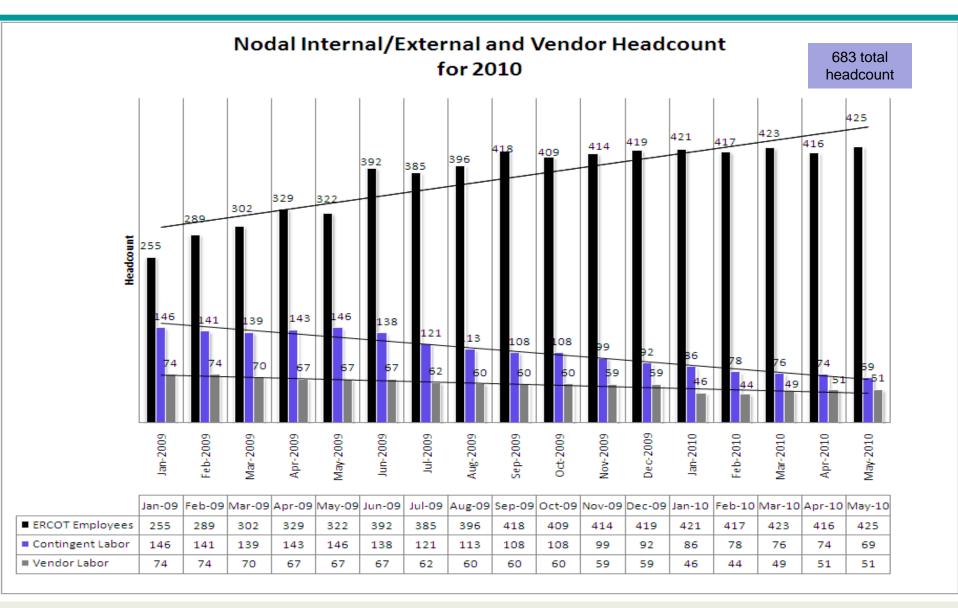
Market Trials has been running for 19 weeks Market Quality Testing and Operational Readiness

Upcoming Milestones for Market Trials:

- Closed Loop LFC
 - 8 hour test will occur this week
 - A market notice will go out two days before the selected day
- DAM/RUC/SASM Scenarios
 - Operational scenarios on will run on Tuesdays and Thursdays in June
- CMM Module for NPRR 206
 - Patch to be installed in late June / early July
- 168 HR Test
 - 168-Hour Test Handbook published by June 30, 2010
 - High level handbook review at the first NATF in July
 - The 168-Hour Test Workshop will take place in tandem with Market Readiness Seminar #5 on July 28, 2010
- System Cut-Over
- Go-Live

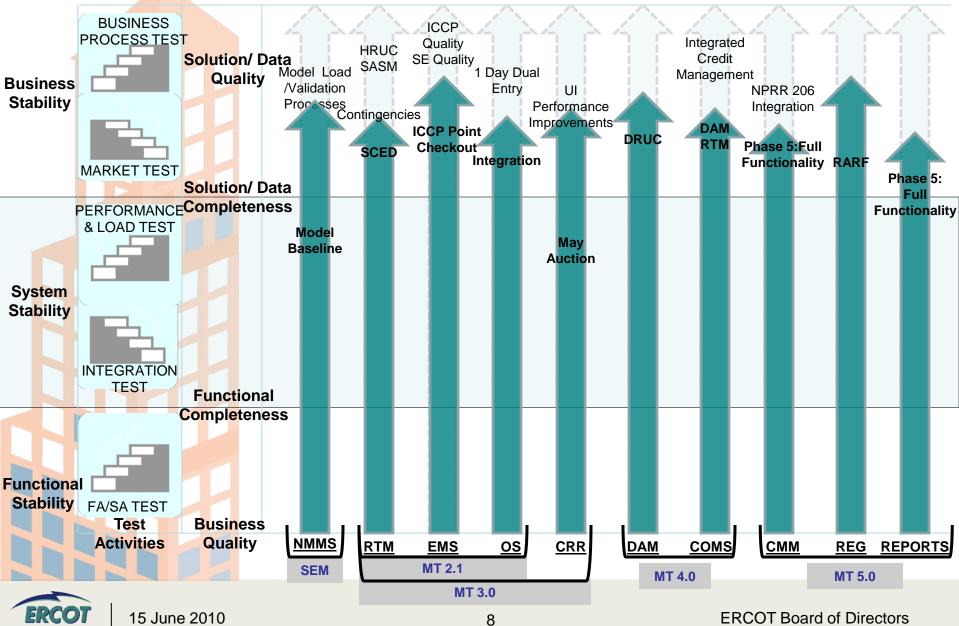


Nodal Internal/External and Vendor Headcount 2010





Go-Live



Nodal Program Risks & Issues

Risk/Issue	Impacted Milestone	Target	Category	Probability	Severity	Status
Market Interaction Operating Level Agreements (OLAs) Need to determine operating level agreements associated with market interactions to assist ERCOT in establishing operational thresholds: -Network Model Management -Reporting	Program	April/ May 2010	Scope / Budget	High	Low	 Phase 4 OLA definitions complete Phase 5 OLA definitions drafted, pending approval Update given at NATF on 06/01; Transition plan discussed at TAC (6/03) and NWSG (6/08) Reports continue to become available as Market Trials activities ramp-up. Performance monitoring continues
Market Design Assessment Risk around the protocol traceability project and the market results as each phase of market trials becomes active.	Program	August 2010	Scope / Budget	Low	High	 Building experienced market design team to review and assess design and protocol alignment with market trials results
Operational Readiness Operational readiness of the Nodal systems and business processes are an increasing risk at this point in the program	Program	September 2010	Scope / Schedule/ Budget	Med	High	 Organizational capability assessments and improvement recommendations are under review by executive management The PMO has and will continue to identify critical deficiencies and implement mitigation strategies to ensure delivery



Issue Escalation Policy For Market Participants

- ERCOT Nodal personnel are pulling back from non-Go-Live interaction within subcommittees and task forces
- Avenues for Question Resolution and Issue Escalation
 - Question Resolution
 - Current Market Trials Calls
 - Email to <u>markettrials@ercot.com</u>
 - Issue Escalation
 - Issue brought up at Subcommittee, Working Group, or Task Force
 - Discussed without ERCOT Nodal personnel involvement
 - Issue is brought before NATF for overall market discussion and ERCOT opinion
 - NATF follows up on issue through the revision request governance process
 - NATF brings issue forward before TAC
 - Voting Items are brought before TAC

Participant Readiness Touch Points

		20	10	
	June	July	August	September
Meetings	• NATF 6/1 and 6/29	• TBD	• NATF 8/3 and 8/31	• TBD
Training	 Nodal 101 LSE 201 Generation 101, 201 Economics of LMP CC Workshop Retail Workshop (6/17) VC Workshop (6/22) AS Workshop (6/30) 	 Nodal 101 Transmission 101 Generation 101, 201 Basic Training Program NOIE QSE Operations Settlements 301 	Nodal 101 Transmission 101 Generation 101, 201 Basic Training Program NOIE QSE Operations Settlements 301	 Nodal 101 Transmission 101 Generation 101, 201 NOIE QSE Operations Settlements 301 MMS & MIS GUI (Online only)
Outreach	 TSP OS Road Show Settlement Metrics Telemetry Quality Metrics 	 MRS #5 (7/28) Dispute & Reports Metrics Standby site visits 	 Standby site visits 	 Standby site visits
Market trials	 Weekly Trials calls 8 hr system-wide LFC test 	 Weekly Trials calls 48 hr system-wide LFC test Verifiable costs in execution NPRR206 in execution 	 Weekly Trials calls Prepare for 168 hr test 	 Weekly Trials calls Execute 168 hr test



Next 60-days of Classes/Workshops

Course	Start Date	Location
ERCOT Nodal 101	June 15	Suez Energy (Houston)
Generation 201	June 17	LCRA (Austin)
Credit Workshop	June 17	ERCOT Met Center (Austin)
Retail Workshop	June 17	Stream Energy (Dallas)
Basic Training Program	June 21	ERCOT Met Center (Austin)
Verifiable Cost Workshop	June 22	Suez Energy (Houston)
Load Serving Entity 201	June 23	Austin Energy Town Lake Center (Austin)
NOIE QSE Operations	June 23	Sam Rayburn Plant (Victoria)
Ancillary Services Workshop	June 30	ERCOT Met Center (Austin

Enrollment at: <u>http://nodal.ercot.com/training/courses/index.html</u>



Next 60-days of Classes/Workshops - continued

Course	Start Date	Location
Credit Workshop	June 24	ERCOT Met Center (Austin)
ERCOT 101 for Wind Generation	June 28	ERCOT Met Center (Austin)
Transmission 101	June 29	Energy Plaza (Dallas)
Market Settlements 301	July 6	ERCOT Met Center (Austin)
Transmission 101	July 13	CenterPoint Energy (Houston)
Load Serving Entity 201	July 20	Optim Energy (Dallas)
Congestion Revenue Rights	July 21	Optim Energy (Dallas)
Generation 101	July 27	Calpine (Houston)
Market Readiness Seminar #5	July 28	ERCOT Met Center (Austin)

Enrollment at: <u>http://nodal.ercot.com/training/courses/index.html</u>



Active Nodal Metrics

ACTIVE NODAL ME								
Metric #	Metrics Name	Category	ERCOT	QSERs	QSEs	TSPs	CRRAHs	REs
MO4	Verify SCED Execution Quality	RT	Green	N/A	N/A	N/A	N/A	N/A
M05	Generate LMPs for 6 months	RT	Green	N/A	N/A	N/A	N/A	N/A
CRR3 (ERCOT)	Operation of CRR Auctions and Allocations	CRR	Green	N/A	N/A	N/A	N/A	N/A
MO9	Generate Day-Ahead LMPs	DAM	Green	N/A	N/A	N/A	N/A	N/A
MO10	DRUC Execution	DAM	Green	N/A	N/A	N/A	N/A	N/A
CO8	Verify CRR Auction Invoices	COMS	Green	N/A	N/A	N/A	N/A	N/A
EMO9(B)	RTCA Modeling Differences	NM	Red	N/A	N/A	N/A	N/A	N/A
EMO19	Anomalous/Auto-Disabled Telemeted Points	NM	Green	N/A	N/A	N/A	N/A	N/A
E1	ERCOT Internal Training	READ	Green	N/A	N/A	N/A	N/A	N/A
E9	Develop Nodal Procedures	READ	Green	N/A	N/A	N/A	N/A	N/A
MP3	Market Submissions Connectivity Qualification	CONN	Green	Green	Green	N/A	N/A	N/A
MP15B	CRR Connectivity Qualification	CONN	Red	N/A	N/A	N/A	Red	N/A
MP20	Outage Scheduler Connectivity Qualification	CONN	Green	Green	N/A	Green	N/A	N/A
EMO6	Individual LFC Testing	RT	N/A	Green	N/A	N/A	N/A	N/A
MP15A	Real-Time Market Daily Participation	RT	N/A	Green	N/A	N/A	N/A	N/A
EMO6	Individual LFC Testing	RT	N/A	Green	N/A	N/A	N/A	N/A
CRR3	Operation of CRR Auctions and Allocations	CRR	N/A	N/A	N/A	N/A	Green	N/A
MP16	DAM Participation	DAM	N/A	Green	Amber	N/A	N/A	N/A
MP20	Outage Scheduler Connectivity Qualification	OS	N/A	Green	N/A	Green	N/A	N/A
N2	Telemetry/ICCP System Failover	NM	N/A	Green	N/A	N/A	N/A	N/A
MP6(SE)	Telemetry Compliance 3.10.7.5	NM	N/A	Green	N/A	N/A	N/A	N/A
MP6(SCED)	Telemetry Compliance 3.10.7.5	NM	N/A	Green	N/A	N/A	N/A	N/A
MP6 (TSP)	Telemetry Compliance 3.10.7.5	NM	N/A	N/A	N/A	Green	N/A	N/A
MP14B	Participation in NOMCR Trials	NM	N/A	N/A	N/A	Green	N/A	N/A
MP14C	Network Model Validation	NM	N/A	N/A	N/A	Green	N/A	N/A
MP11	Resource Registration	RES	N/A	N/A	N/A	N/A	N/A	Green



Market Participant Metrics

Metric Name	Current Score	Applies to	Weight	Green %	Yellow %	Red %	Not Scored %	Primary Criteria	Notes
Market Participant Met	trics								
MP15(B) CRR Connectivity Qualification *	Red	CRRAHs	Even weighting	94.2%	0.0%	0.0%	5.8%	Successful submission CRR transactions	65/69 CRRAHs qualified. Greater than 5% RED.
MP16 DAM Participation	Amber	QSEs	Even Weighting	74.2%	10.4%	13.2%	2.2%	Participation in 50% of the Day-Ahead Market runs	

ERCOT Metrics

Metric Name	Current Score	Applies to	Weight	Green %	Yellow %	Red %	Not Scored %	Primary Criteria	Notes
ERCOT Metrics EMO9(B) RTCA Modeling Differences	Red	ERCOT	N/A	56.3%	N/A	N/A	N/A	95% of load tap setting values matched between Zonal/Nodal	56% Match for transformer tap settings. 1464 transformers in Nodal.

* ERCOT is also scored on the connectivity metrics, so MP15-B is RED on the ERCOT scorecard as well.





Monthly Financial Review

Don Jefferis Interim Director – Nodal Financial Management Office 15 June 2010

						Va	riance
Line	Cost Summary	For	ecast ¹	Α	ctual	Fav.,	/(Unfav.)
1	Internal Labor Costs	\$	2.6	\$	2.5	\$	0.1
2	Backfill Labor Costs		0.1		0.1		-
3	External Resource Costs		3.0		2.5		0.5
4	Software & Software Maintenance		1.5		1.5		-
5	Hardware & Hardware Maintenance		0.2		0.2		-
6	Other		-		-		-
7	Sub-total Direct Project Costs	\$	7.4	\$	6.8	\$	0.6
8	Allocations		0.3		0.3		-
9	Finance Charges		1.1		1.0		0.1
10	Sub-total Indirect Project Costs	\$	1.4	\$	1.3	\$	0.1
11	Total	\$	8.8	\$	8.1	\$	0.7

Variance

Amounts in millions

Note 1: Forecast consists of re-forecast from April 1, 2010 plus NCRs



Financial Review – LTD Performance through May 2010 Forecast vs. Actual

								Est	timate
						Va	ariance		to
Line	Cost Summary	Fo	recast ¹	Α	ctual	Fav	./(Unfav.)	Cor	nplete ²
1	Internal Labor Costs	\$	69.1	\$	68.9	\$	0.2	\$	14.6
2	Backfill Labor Costs		5.8		5.9		(0.1)		0.5
3	External Resource Costs		268.7		268.1		0.6		11.5
4	Software & Software Maintenance		28.6		28.6		-		1.6
5	Hardware & Hardware Maintenance		48.3		48.2		0.1		1.6
6	Other		2.1		2.1		-		0.2
7	Sub-total Direct Project Costs	\$	422.6	\$	421.8	\$	0.8	\$	30.0
8	Allocations		21.5		21.5		-		1.5
9	Finance Charges		31.2		31.1		0.1		19.9
10	Sub-total Indirect Project Costs	\$	52.7	\$	52.6	\$	0.1	\$	21.4
11	CTO Contingency Fund Unutilized		-		-		-		4.3
12	Board Discretionary Fund		-		-		-		112.8
13	Total	\$	475.3	\$	474.4	\$	0.9	\$	168.5

Amounts in millions

Note 1: Forecast consists of re-forecast from April 1, 2010 plus Q2 NCRs

Note 2: Estimate to Complete (ETC) consists of re-forecast from April 1, 2010 plus Q2 NCRs



Financial Review – CTO Contingency Fund Q2 Risk Items Update

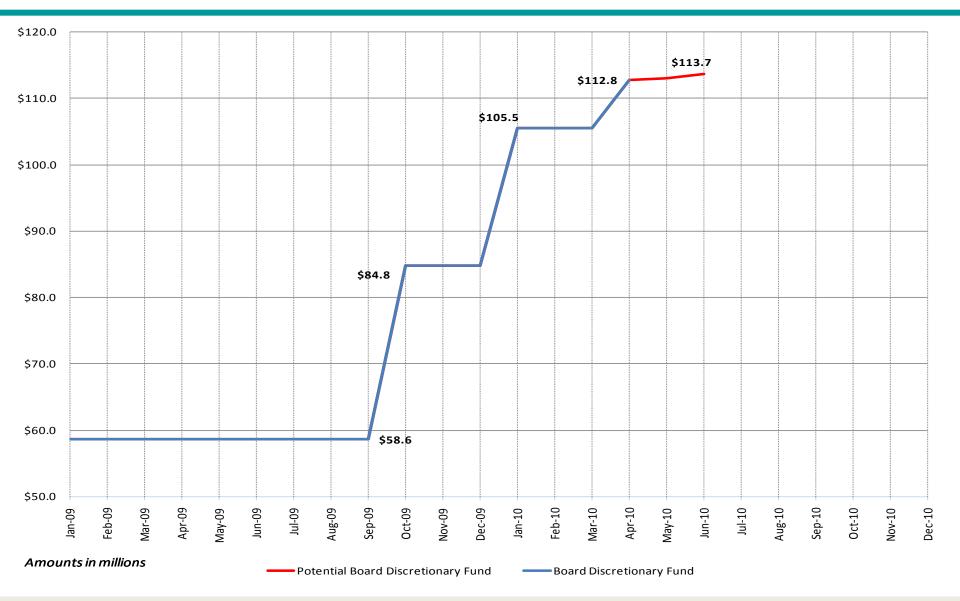
Line	Major Activities/Adjustments	Likely to Spend ¹	Risk	Approved NCRs	Unutilized Risk Funds
1.	Credit Management	н	\$ 1.2	(\$1.3)	(\$0.1)
2.	Infrastructure Hardware & Application Upgrades	L	1.0	-	1.0
3.	Expected Nodal Change Request Anticipated	н	1.0	0.5	1.5
4.	Market Analysis	н	0.8	(0.1)	0.7
5.	Business Process Monitoring & Cutover Coordination	н	0.7	-	0.7
6.	Current Open Change Requests	н	0.3	-	0.3
7.	Network Model Management	н	0.2	(0.1)	0.1
8.	Independent Market Monitor	L	0.1	-	0.1
	Total		<u>\$ 5.3</u>	<u>(\$1.0)</u>	<u>\$ 4.3</u>

Amounts in millions

Note 1: H – high probability risk will materialize, L – low probability risk will materialize



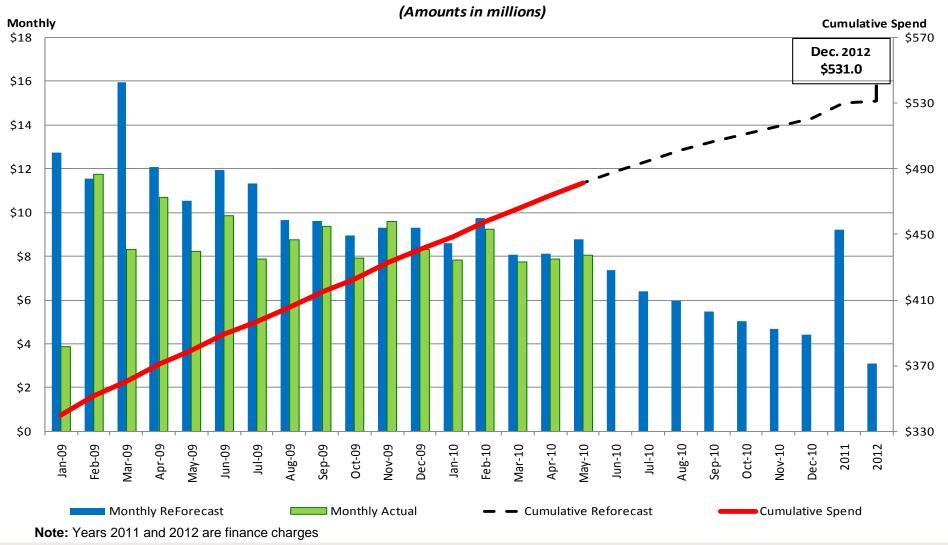
Financial Review - Board Discretionary Fund





Financial Review – Program Cost Management 2009 and 2010 Forecast

Monthly Budget, Forecast & Actual Analysis





Questions?



Appendix



Nodal Program Risks & Issues: Definitions

Definitions for Category, Probability and Severity of Risks & Issues:

• Category

- <u>Scope</u>: Will require a scope change
- <u>Schedule</u>: Will require a schedule change
- <u>Budget</u>: Will require a budget change

• Probability

- <u>High</u> : Probability to occur is ≥ 90%; perceived impact would require a Change Request over the next 1-3 months
- <u>Medium</u>: Probability to occur is between 31 89%; perceived impact would require a Change Request over the next 4 -10 months
- <u>Low</u>: Probability to occur is \leq 30 %; not expected to require a Change Request

• Severity

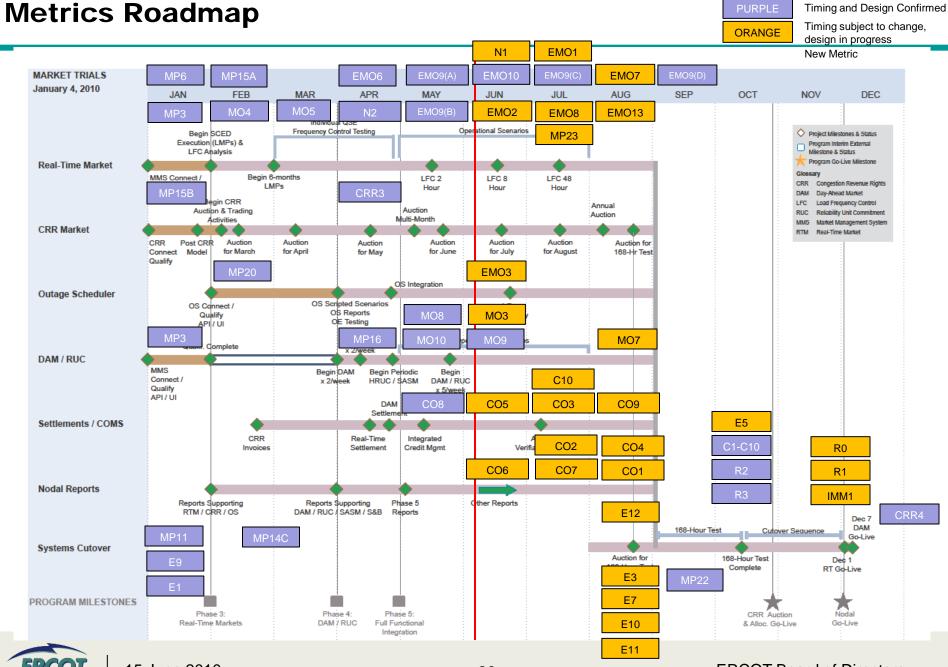
- <u>High</u>: Milestone impact, or budget impact >\$250,000
- <u>Medium</u>: Milestone impact but expected to be mitigated, or budget impact between \$0 - \$250,000
- <u>Low</u>: No milestone impact, or no budget impact



Defect Definitions

Severity		Definition						
Severity 1: Data loss/critical error	such as system	Defects that render unavailable the critical functions of the system under test. These include error such as system errors, application failures, loss of data, incorrect calculations, inability to transfe lata, failure to access database, and inability to display information to the user.						
Severity 2: Loss of functionality w/o workaround	available. The	Defects that render unavailable partial functionality of the system under test with no workaround available. These include errors such as incorrect information displayed to the user, information i updating correctly, extracts failing, and missing export files.						
Severity 3: Loss of functionality with workaround	available. The	ender unavailable partial functionality of the system under se include errors such as incorrect message displayed, o ed correctly, not receiving e-mail notifications, and incor	optional information missing					
Severity 4: Partial loss of a feature set		ffect a feature that is not executed on a frequent basis ar system. These include errors such as help information, f	-					
Severity 5: Cosmetic/documentation error	stability of the	re cosmetic and need to be resolved, but are not a factor system. These include errors such as field alignment, re s, column order and documentation that is inconsistent	eport formatting, drop down					
		Prescription in Quality Center						
	Priority 1	Must fix ASAP						
	Priority 2	Must fix prior to Go-Live						
	Priority 3	Not critical to fix before Go-Live						
	Priority 4	Minor system/user impact						
	Priority 5	No system/user impact						





15 June 2010

ERCOT Board of Directors

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CRR Metrics

Metric Name	Current Score	Applies to	Weight	Green %	Yellow %	Red %	Not Scored %	Primary Criteria	Notes
Market Participant Met	rics								
MP15(B) CRR Connectivity Qualification	Red	CRRAHs	Even weighting	94.2%	0.0%	0.0%	5.8%	Successful submission CRR transactions	65/69 CRRAHs qualified. Greater than 5% RED.
CRR3 Operation of CRR Auctions and Allocations	Green	CRRAHs	Even weighting	95.4%	0%	0%	4.6%	Participation in at least one of the last two auctions or allocations.	62/65 CRRAHs with adequate participation in BOY or June auction or allocation
ERCOT Metrics									
CPP2 Operation of	Green	ERCOT	N/A	N/A	N/A	N/A	N/A	Auction results distributed to participants per schedule in CRR Handbook	5/24 2010 June Monthly Auction results posted to market.
CRR3 Operation of CRR Auctions and Allocations	TBD	ERCOT	N/A	100%	0%	0%	0%	Allocated Revenue Rights in statistical sample = 100% accurate	Source – Sink prices = CRR Clearing prices for obligations for BOY auction. ERCOT working on similar validation process for options.
CO8 Verify CRR	Green	ERCOT	N/A	100%	0%	0%	0%	CRR Auction Result for MP(n) – CRR Auction Invoices for MP(n) = 0\$	S&B validated that auction invoices reflected awards per CRRAH for March, April, and May auctions,
Auction Invoices	Green	ERCOT	N/A	100%	0%	0%	0%	not posted = 0	March 2010 Monthly = 40 of 40 April 2010 Monthly = 38 of 38 May 2010 Monthly = 48 of 48



Real-Time Metrics

Metric Name	Current Score	Applies to	Weight	Green %	Yellow %	Red %	Not Scored %	Primary Criteria	Notes		
Market Participant Met	Market Participant Metrics										
MP3 Market Submissions	Green	QSERs	Generation Ratio Share	99.0%	1.0%	0.0%	0.0%	Successful submission of RT and DAM	79/81 QSERS qualified		
Connectivity Qualification	Green	QSEs	Even weighting	98.9%	1.1%	0.0%	0.0%	transactions	178/182 QSEs qualified.		
EMO6 Individual LFC Testing	Green	QSERs	Generation Ratio Share	96.9%	0%	0%	3.1%	80% of system-wide generation has completed individual QSE tests for LFC	70/73 QSERs completed their individual LFC test or provided attestation		
MP15-A Real-time Market Participation	Green	QSERs	Generation Ratio Share	98.9%	1.1%	0.0%	0.0%	Weekly average of daily SCED submissions	73/79 QSERs above 95% weekly average for SCED submissions.		
ERCOT Metrics											
MO3 Verify SASM	6/2/2010	ERCOT	N/A	N/A	N/A	N/A	N/A	Multiple SASMs are successfully executed during Market Trials and the 168 hour test.	SASMs executed successfully on 4/28, 4/30, 5/4, 5/6, 5/7, 5/12, and 5/14.		
MO4 Verify SCED Execution Quality	Green	ERCOT	N/A	100%	0%	0%	0%	All successful SCED executions passed the post-execution price validations.	5/4-5/17 period - 4,055 Price Validation runs with no rule violations		
MO5 Generate 6 Months of LMPs	Green	ERCOT	N/A	98.1%.	0%	1.9%	0%	95% of SCED executions completed with LMPs posted on MIS.	5/4-5/17 period, 4,076 out of 4,058 SCED runs with LMPs posted.		
CO5 Verify RTM Settlement Statements/CO6 Verify	6/2/2010	ERCOT	N/A	100%	0%	0%	0%	System Generated RT Statement Dollars- Independently Generated RT Calculation Dollars =\$0	Stats available 6/2		
RTM Settlement Invoices	6/2/2010	ERCOT	N/A	100%	0%	0%	0%	System Generated RT Statements/Invoices not posted = 0	Stats available 6/2		



Day-Ahead Market Metrics

Metric Name	Current Score	Applies to	Weight	Green %	Yellow %	Red %	Not Scored %	Primary Criteria	Notes
Market Participant Met	rics								
MP16 DAM	Green	QSERs	Generation Ratio Share	98.7%	0.7%	.5%	.1%	Participation in 50% of the Day-Ahead Market	77/81 QSEs with Resources
Participation	Amber	QSEs	Even Weighting	74.2%	10.4%	13.2%	2.2%	runs	135/182 QSEs w/o Resources
CO10 Credit Calculations	6/30/2010	QSERs, QSEs	Gen Ratio Share, Even Weighting	N/A	N/A	N/A	N/A	<= 25% of MPs credit limits inconsistent with protocols	To be determined
ERCOT Metrics									
MO8 Verify DAM Execution Quality	Report in Progress	ERCOT	N/A	N/A	N/A	N/A		DAM executions pass the post-execution price validations	Report in progress
MO9 Generate DAM LMPs	Green	ERCOT	N/A	N/A	N/A	N/A	N/A	95 percent DAM execution as evidenced by DAM LMP postings	5/3-5/17 – 4/4 DAM runs execute(doesn't measure quality)
MO10 DRUC Execution	Green	ERCOT	N/A	N/A	N/A	N/A	N/A	95 percent DRUC execution	5/3-5/17 - 4 out of 4 DRUC runs executed (doesn't measure quality)
CO3 Verify DAM Settlement Statements/CO7 Verify	6/2/2010	ERCOT	N/A	100%	0%	0%	0%	System Generated RT Statement Dollars- Independently Generated RT Calculation Dollars =\$0	Stats available 6/2
DAM Invoices	6/2/2010	ERCOT	N/A	100%	0%	0%	0%	System Generated RT Statements/Invoices not posted = 0	Stats available 6/2
CO10 Credit Calculations	6/30/2010	ERCOT	N/A	N/A	N/A	N/A	N/A	ERCOT performs credit calcs for a stat. sample of MPs	

1. MP16 – Metric is based on a 2 week rolling average (5/18-20, 5/24-28 – 8 runs).

2. MP16 – 98% Load participating.



Network Modeling Metrics

Metric Name	Current Score	Applies to	Weight	Green %	Yellow %	Red %	Not Scored %	Primary Criteria	Notes
Market Participant Met	rics								
MP14-C TSP Model Validation	Green	TSPs	Ownership Ratio Share	99.9%	.1%	0.0%	0.0%	Network Model data validated by TSP	24/28 TSPs have submitted model validation e-mail to ERCOT.
MP6 Telemetry	Green	QSERs	Generation Ratio Share	100%	0.0%	0.0%	0.0%	Expected State Estimator telemetry submitted.	78/78 complete. 3502 total SE points provided
Compliance with Nodal Protocols 3.10.7.5	Green	QSERs	Generation Ratio Share	100%	0.0%	0.0%	0.0%	Expected SCED telemetry submitted.	78/78 complete. 7629 SCED points provided
F 1010C015 5. 10.7.5	Green	TSPs	Ownership Ratio Share	99.3%	0.0%	0.0%	.7%	Expected TSP telemetry per ICCP Handbook submitted	14/17 TSPs above 98% threshold for GREEN. 143 points outstanding
N2 Telemetry ICCP System Failover	Green/White only	QSERs	Generation Ratio Share	18.3%	0%	0%	81.7%	ICCP Failover test completed successfully prior to the 8-hour LFC test.	22/78 QSERs completed ICCP telemetry failover test
MP18 Mapping of Resources and Loads in Private Use Networks	6/30/2010	QSERs	Generation Ratio Share	N/A	N/A	N/A	N/A	# of QSE(n) PUN Points Provided / # of QSE(n) PUN Points Expected	306 points across 7 QSEs with Resources. 15 points still assigned to TSP.
MP21 WGRs ICCP Meteorological Telemetry	6/30/2010	REs (only WGRs)	Registered MW Capacity Ratio Share	N/A	N/A	N/A	N/A	WGRs must meet reasonability tests for MET ICCP	To be determined
MP23 Telemetry	6/30/2010	TSPs	Ownership Ratio Share	N/A	N/A	N/A	N/A	# of TSP(n) Suspect/Bad points provided / # of TSP(n) points total	1356 Suspect/Bad points (97.9% good quality).
Quality (MP to ICCP server)	6/30/2010	QSERs	Generation Ratio Share	N/A	N/A	N/A	N/A	# of QSER(n) Suspect/Bad points provides / # of QSER(n) points total	871 Suspect/Bad points (94.9% good quality)

1. MP6 does not include 405 QSE CB and DSC points from TSP outreach. ERCOT is determining whether these rollback into the QSER MP6 measurement.



Network Model Metrics

Metric Name	Current Score	Applies to	Weight	Green %	Yellow %	Red %	Not Scored %	Primary Criteria	Notes
ERCOT Metrics									
EMO9(A) State Estimator Standards Performance	6/2/2010	ERCOT	N/A	N/A	N/A	N/A	N/A	State Estimator converges 97% during monthly test period	May % available 6/2/2010
	Green	ERCOT	N/A	96.8%	N/A	N/A	N/A	95% of impedance values matched between Zonal/Nodal	97.4% match for impedances for lines and transformers. 5266 lines in Nodal.
EMO9(B) RTCA Modeling Differences	Green	ERCOT	N/A	96.8%	N/A	N/A	N/A	95% of dynamic line ratings matched between Zonal/Nodal	97.5% match for dynamic ratings for lines and transformers. 5266 lines in Nodal.
	Red	ERCOT	N/A	56.3%	N/A	N/A	N/A	95% of load tap setting values matched between Zonal/Nodal	56% Match for transformer tap settings. 1464 xfrms in Nodal.
EMO10 Anomalous / Auto-Disabled Telemetered Points	Green	ERCOT	N/A	N/A	N/A	3.04%	N/A	The % of Anomalous and Auto-Disabled Measurements < 2% of Total Measurements	April Nodal 2.58% March Nodal 3.17% May Nodal 1.92%%
EMO9(C) RTCA CSC Comparison	7/14/2010	ERCOT	N/A	N/A	N/A	N/A		CSC Pre-contingency SE Flows within 5% (Hourly snapshot)	Measurement establishes baseline flows on Commercial lines to indicate the significance of Psuedo modeling and multi- section lines on the SE flows.
EMO9(D) Validate Zonal and Nodal Security Analysis Results	9/8/2010	ERCOT	N/A	N/A	N/A	N/A	N/A	90% of active constraints in Zonal RTCA are also detected in Nodal RTCA	To be determined



Other Readiness Metrics

Metric Name	Current Score	Applies to	Weight	Green %	Yellow %	Red %	Not Scored %	Primary Criteria	Notes
Market Participant Me	etrics								
MP20 Outage Scheduler	Green	QSERs	Generation Ratio Share	98.9%	0.0%	0.0%	1.1%	Successful submission of OS	75/81 QSERS qualified.
Connectivity Qualification	Green	TSPs	Ownership Ratio Share	99.8%	0%	0%	.02%	transactions	23/25 TSPs qualified.
MP11 Resource Registration	Green	REs	Registered MW Capacity Ratio Share	99.6%	0.0%	.4%	0.0%	Decision Making Authority form submitted, and GENMAP validated	154/157 Resources completed.
CO2 Verify Dispute Process	7/14/2010	QSERs, QSEs	Generation Ratio Share, Even Weighting	N/A	N/A	N/A	N/A	>=1 dispute submit per MP. # of unprocessed disputes by 168 = 0	To be determined
ERCOT Metrics									
E1 ERCOT Staff Completes Training	Green	ERCOT	N/A	100%	N/A	N/A	N/A	Training plans must be adhered to for highly impacted departments	15 out of 15 highly impacted departments are up to date with their training plans.
E9 Develop Nodal Procedures	Green	ERCOT	N/A	100%	N/A	N/A	N/A	Procedures developed 1 month prior an exercised in the appropriate Market Trials Phase	All MT4 and MT5 are developed and the MT4 procedures exercised as scheduled in MT4.
EMO3 Verify Outage Evaluation System Functionality	6/30/2010	ERCOT	N/A	N/A	N/A	N/A	N/A	A test of the Outage Management Process is completed	To be determined

