



Nodal Program Cutover Sign-Off Document

TARGET DATE: October 2010
MILESTONE: Congestion Revenue Rights (CRR) Cutover

PURPOSE

This document outlines the Program Readiness Criteria for transitioning Nodal Systems for Go-Live. The Readiness Criteria and supporting information have been evaluated based on cutting the CRR application into Production to support execution of the December CRR Auction and Allocation processes starting in October.

Section I: Program Milestones Section II: CRR System Readiness Criteria Section III: CRR Process Readiness Criteria Section IV: CRR People Readiness Criteria Section V: CRR Readiness Review and Approval Section VI: Appendix – Supporting Information

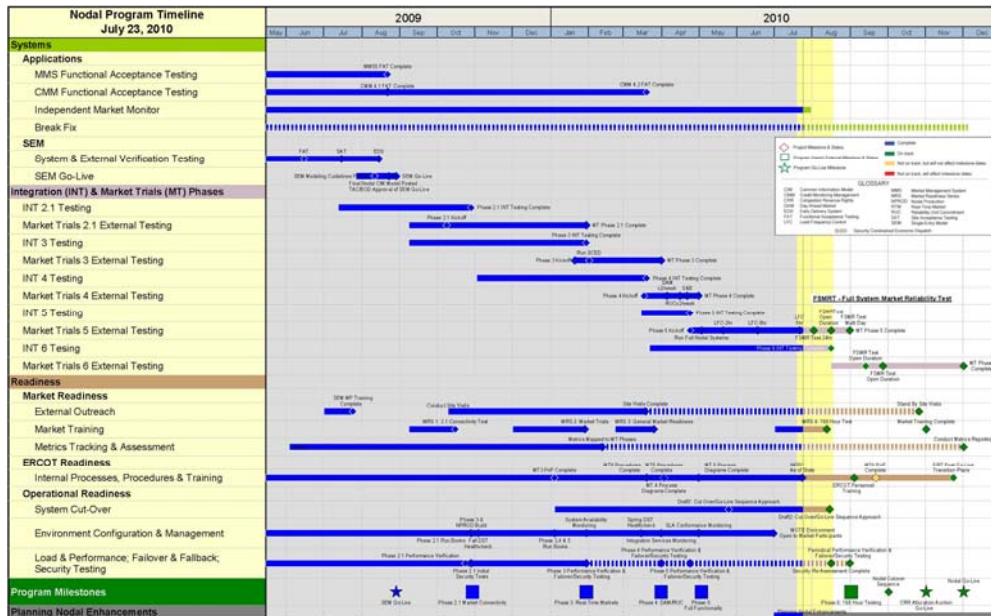
SIGNOFF

ERCOT Management signoff represents acknowledgement of the completion of the Readiness Criteria for continuing transition toward Nodal Production Operations targeted for December 1, 2010.

ERCOT Management Area	Business Owner Name / <i>Technical Owner Name (If Tech Verification only)</i>	Signature (Not required – Email will count as electronic signature)	Date
Manager Day Ahead/CRR	Matt Mereness		
Director Market Operations	Betty Day		
Nodal Program SR VP Chief Operating Officer	Mike Cleary		

I. Program Timelines, Project Milestones:

The Timeline and dashboard below outline the key tracking milestones for the Program. Based on the overall progress of the Program and identified cutover activities for transitioning into Production, October 1st the Congestion Revenue Rights Timelines and Protocol requirements will be enacted to support Allocation and Auction activities for December.



	Delivery Area	Project	Milestone Description	Baseline Finish	Current Finish	This Weeks Status
★	Program Milestone	PMO/DA	PHASE 2.1 - MARKET CONNECTIVITY		10/28/09	Complete
★	Program Milestone	PMO/DA	PHASE 3 - Real-Time Markets	2/1/10	1/29/10	Complete
★	Program Milestone	PMO/DA	PHASE 4 - DAM/RUC	4/1/10	4/1/10	Complete
★	Program Milestone	PMO/DA	PHASE 5 - Full Functionality	5/3/10	5/3/10	Complete
★	Program Milestone	PMO/DA	PHASE 6 - 168 Hour Testing	9/1/10	9/1/10	Green
◆	Integration Testing	INT	MT 6 - End to End Testing Complete	8/16/10	8/16/10	Green
◆	Market Training	ERT	Market Readiness Series 4	8/12/10	8/12/10	Green
◆	Internal Process, Procedures, Training	ERT	NERC As Of State	7/12/10	7/23/10	Complete
◆	Internal Process, Procedures, Training	ERT	MT6 PhP Complete	8/31/10	9/21/10	Yellow
◆	System Cutover	INF/ORT	Pre Go-Live System Cutover Plans	5/28/10	5/25/10	Complete
◆	System Cutover	INF/ORT	Go-Live System Cutover Plans	8/17/10	8/17/10	Green
◆	Market Trials	MT	Run SCED	3/31/10	3/31/10	Complete
◆	Market Trials	MT	MT Phase 3 Complete	3/31/10	3/31/10	Complete
◆	Market Trials	MT	Run DAM / RUC	4/15/10	4/15/10	Complete
◆	Market Trials	MT	Run DAM / RUC / RTM / S&B	4/15/10	4/21/10	Complete
◆	Market Trials	MT	LFC-2hr	5/14/10	5/20/10	Complete
◆	Market Trials	MT	MT Phase 4 Complete	4/30/10	4/30/10	Complete
◆	Market Trials	MT	LFC-8hr	6/17/10	6/17/10	Complete
◆	Market Trials	MT	LFC-5hr	7/21/10	7/21/10	Complete
◆	Market Trials	MT	Full System Market Reliability Test - 24Hr	8/5/10	8/5/10	Green
◆	Market Trials	MT	Full System Market Reliability Test - Open Duration	8/16/10	8/16/10	Green
◆	Market Trials	MT	Full System Market Reliability Test - Multi Day	8/30/10	8/30/10	Green
◆	Market Trials	MT	Begin 24x7 Support	8/16/10	8/16/10	Green
◆	Market Trials	MT	Full System Market Reliability Test - Open Duration	9/13/10	9/13/10	Green
◆	Market Trials	MT	Full System Market Reliability Test - Open Duration	9/27/10	9/27/10	Green
◆	Market Trials	MT	MT Phase 6 Complete	12/1/10	12/1/10	Green
◆	Market Training	ERT	Market Training Complete	10/29/10	10/29/10	Green
◆	Internal Process, Procedures, Training	ERT	ERCOT Personnel Training	9/8/10	9/3/10	Green
★	Program Milestone	PMO/DA	SEM Go-Live	8/28/09	8/28/09	Complete
★	Program Milestone	PMO/DA	CRR Auction & Allocation Go-Live	11/1/10	11/1/10	Green
★	Program Milestone	PMO/DA	Nodal Go-Live	12/1/10	12/1/10	Green

LEGEND: BLUE - Complete, GREEN - No Delay, YELLOW - Delay w/o Impact, RED - Impacted Milestone

* Pulled from the Nodal Status Report week ending 07/23/10

II. CRR System Readiness Criteria

The following table outlines the System Readiness Criteria for the CRR System. Additional details for the criteria are available in the Appendix.

Criteria	Planned Completion	Status
CRR System Released to Market Trials	02/01/10	<p>COMPLETE</p> <ul style="list-style-type: none"> System deployed with known defects to begin Qualification activities Quality Center and Market Trials known issues list used to manage defects There are no CRR Core System defects, however there are Model data issues with Topology Processor output (see below)
CRR Integrated in Market Trials	05/01/10	<p>COMPLETE</p> <ul style="list-style-type: none"> The CRR integration with the Market, Credit, and Settlement Systems 3 remaining defects required for Go-Live <ul style="list-style-type: none"> 2 – Data defects – working with TSPs to update the Model; Severity 3 w/ workaround available pending data cleanup 1 – Software defect – vendor fix in evaluation; Severity 3 w/ manual workaround available pending software fix <p>* All 3 defects are all Market Facing, but can be mitigated for go-live with the workarounds</p>
CRR Account Holder Connectivity Qualification (MP15B)	09/17/10	<p>GREEN</p> <ul style="list-style-type: none"> Current Score RED - Aug TAC presentation <ul style="list-style-type: none"> CRRAHs 90.7% (68/75) Participating in CRR testing ERCOT is continuing outreach to registered account holders that are not participating in CRR testing.
Operation of CRR Auctions and Invoices (CRR3)	Ongoing	<p>GREEN</p> <ul style="list-style-type: none"> Current Score GREEN - Aug TAC presentation <ul style="list-style-type: none"> CRRAHs 87.8% (58/66) Participation in at least 1 of last 2 auctions/allocations
Verified CRR Auction Invoices (CO8)	Ongoing	<p>GREEN</p> <ul style="list-style-type: none"> Current Score GREEN - Aug TAC presentation <ul style="list-style-type: none"> ERCOT 100% Invoices validated and posted

III. CRR Process Readiness Criteria:

The following table outlines the Process Readiness Criteria for Outage Scheduling.

Criteria	Planned Completion	Status
CRR Procedures	6/25/10	COMPLETE <ul style="list-style-type: none">ERT - CRR Procedures complete
Market Rules – Protocol Transition Plan updated	07/29/10	COMPLETE <ul style="list-style-type: none">CRR Team has identified applicable Nodal Protocol sections that will be enacted on 10/13/10.Protocol Transition Matrix distributed to NATF
TCR to CRR Transition Plan (CRR4)	09/29/09	COMPLETE <ul style="list-style-type: none">Transition Plan approved by TPTF and posted on Readiness Center; Metric Closed

IV. CRR People Readiness

The following table outlines the System Readiness Criteria for the Network Model Management System.

Criteria	Planned Completion	Status
ERCOT Staff Supporting Market Trials	Ongoing	IN PROCESS <ul style="list-style-type: none">The CRR business team continues to execute business processes in support of Market Trials
ERCOT Staff Trained on System and Processes	06/25/10	COMPLETE <ul style="list-style-type: none">ERT status - CRR business team training items complete
Market Participant Training Delivered	07/15/09	COMPLETE <ul style="list-style-type: none">Instructor Led training classes continue to be delivered Monthly and Web Based training available.

V. Readiness Review and Approval

The following table outlines the System Readiness Criteria for the Network Model Management System.

Review	Planned Completion	Status
NATF Review	07/08/10	IN PROCESS

	07/29/10 08/03/10	<ul style="list-style-type: none"> • Reviewed at NATF on 07/08/10 • Reviewed at NATF on 07/29/10 <ul style="list-style-type: none"> ◦ NATF concerns expressed concerns on status of defects required for Go-Live • Reviewed at NATF on 08/03/10 <ul style="list-style-type: none"> ◦ No additional system issues were identified by the Market; NATF voted to recommend to TAC
ERCOT Management Approval	08/04/10	<ul style="list-style-type: none"> • Signoff of this document
TAC Approval	08/05/10	<ul style="list-style-type: none"> • Any TAC concerns will be captured and used to evaluate next steps prior to BOD presentation
Board of Directors Approval	08/17/10	<ul style="list-style-type: none"> • Target for BOD approval of Readiness Criteria
30 Day Market Notice	09/01/10	<ul style="list-style-type: none"> • Market Notice to be drafted pending TAC and Board of Directors feedback

VI. Appendix – Supporting Information

The following information provides the supporting details for each of the Readiness Criteria outlined above.

System Readiness

CRR Release to Market Trials

The table below identified the key functionality released to Market Trials as defined in the PMO scope document for Market Trials Phase 3.

Functionality / Interfaces	Description	MT Phase
CRR input from NMMS - Monthly Model	PSSE Model and supporting files	MT P3
MP Input to CRR	Bid Data, Nominations	MT P3
Execute 'Special' Monthly Allocation and Auction	Special First 6 month Auction	MT P3
CRR output to S&B	Auction results to CSI	MT P3
CRR input from S&B	Payment Confirmation	MT P3
CRR output to MIS	Post monthly results and monthly auction notices on MIS (MIR)	MT P3

Market Notice sent 12/30/09 – CRR Qualification period 1/4-1/29 2010 ([Link](#))

Integration Testing and Program Signoff documentation can be found at:

- TestingSignOffDocument_Phase 3.0 Baseline 12042009 ([Link](#))
- MT3.0 Entrance Sign-off Document 01292010 ([Link](#))
- Phase 3 Program Milestone Signoff Document ([Link](#))

Open Defects- Needed for Go-Live

Defect ID	Status	Project	Summary	Priority	Severity	Market Facin	NPROD Migration Dat
13512	Open	CRR	Incorrect Loadzone Designation from Topology Processor Output file	2 Must Fix prior to go-live	3 Loss of functionality	Y	2010-08-16
14582	Open	CRR	Resource Nodes missing from Settlept output file produced by Topology Processor	2 Must Fix prior to go-live	3 Loss of functionality	Y	2010-08-16
17055	Open	CRR	Topology Processor cannot consume outages information for CRR modeling	2 Must Fix prior to go-live	3 Loss of functionality	Y	2010-08-16

* **Quality Center (Priority 1/ 2 – Req. for Go-Live; Defect on Demand query tool 8/03/10)**

- Defects 13512 & 14582 are data input issues with Connectivity Node Groups (CNGs) defined by TSPs. ERCOT has been working with TSPs to update the CNGs over the last few months and has a target date of 8/16 for all updated to be resolved. Specific number of CNG issues are being tracked by TSP. A workaround has been defined to identify and remediate CNG issues that would impact the CRR Model
- Defect 17065 is a software defect where the Topology Processor does not correctly apply Outages to the CRR Network Model. Until the Siemens Topology Processor issue resolved, a workaround has been identified and tested based on the current TCR manual process to apply PSS/E Model changes manually to account for Outages. This process is a viable solution for Production Go-Live.

CRR Integrated in Market Trials

Functionality / Interfaces	Description	MT Phase
CRR Balance of Year Auction		MT P4
CRR output to MMS	Publish CRR Ownership	MT P4
CRR input from NMMS	Yearly Model	MT P4
CRR Output to CMM	Export CRR Ownership for Credit Management	MT P4
CRR Output to CMM	Export CRR Bilateral Trade Requests	MT P5
CRR Input from CMM	Import CRR Bilateral Trade Response	MT P5

Integration Testing and Program Signoff documentation can be found at:

- MT4.0 Entrance Sign-off Document 03262010 final ([Link](#))
- MT5.0 Entrance Sign-off Document 04302010 final ([Link](#))
- Phase 4 Program Milestone Signoff Document ([Link](#))
- Phase 5 Program Milestone Signoff Document ([Link](#))

CRR Account Holder Connectivity Qualification (MP15B)

Reported **RED** at TAC on 07/01/10 ([Link](#))

- CRRAHs – 66/74 qualified (greater than 5% not qualified)

Mitigation Plan: ERCOT continues to work with those Account Holders that have submitted paperwork but have not completed qualification. Since the CRR Market is voluntary, the plan is to continue working with registered AH that have not qualified up until the September 17th Qualification cutoff date. After the cutoff date any registered entities that have not qualified will not be able to participate in the November Auction for the month of December.

Operation of CRR Auctions and Allocations (CRR3)

MP Metric Reported **GREEN** at TAC on 07/01/10 ([Link](#))

58/66 CRRAHs with adequate participation in June or July auctions or allocations

ERCOT Metric Reported **GREEN** at TAC on 07/01/10

June Monthly Auction results posted per schedule

Process Readiness

CRR Procedures Ready

The table below was consolidated from the ERT tracking spreadsheet ([Link](#))

L3 Process / Procedure Owner	Procedures	Procedure% Complete
Matt Mereness	CRR Desk Procedures: Add/Update New NOIE Contract and Entitlement Data to the Master List	100%
Matt Mereness	CRR Desk Procedures: Set System Parameters	100%
Matt Mereness	CRR Desk Procedures: Develop, Load and Import CRR Network Model Information	100%
Matt Mereness	CRR Desk Procedures: Create and Upload Account Holder and Counter-Party Data	100%
Matt Mereness	CRR Desk Procedures: Qualify New Market Participant as CRR Account Holder	100%
Matt Mereness	CRR Desk Procedures: Upload Payment Confirmation Data from Settlements	100%
Matt Mereness	CRR Desk Procedures: Run Balance of the Year Allocations and Auctions	100%
Matt Mereness	CRR Desk Procedures: Run First 6 Months CRR Auction	100%
Matt Mereness	CRR Desk Procedures: Run First Six Months PCRR Allocation	100%
Matt Mereness	CRR Desk Procedures: Set up the First Six Months Auction	100%
Matt Mereness	CRR Desk Procedures: Prepare for the Monthly CRR Auction	100%
Matt Mereness	CRR Desk Procedures: Run True-Up Monthly PCRR Allocation	100%

L3 Process / Procedure Owner	Procedures	Procedure% Complete
Matt Mereness	CRR Desk Procedures: Post Files to MIS via Drop-Off Location	100%
Matt Mereness	CRR Desk Procedures: Run Monthly CRR Auction	100%
Matt Mereness	CRR Desk Procedures: Manage CRR Market Operator Access to the CRR System	100%
Matt Mereness	CRR Desk Procedures: Create a New CRR	100%
Matt Mereness	CRR Desk Procedures: Delete an Existing CRR	100%
Matt Mereness	CRR Desk Procedures: Edit an Auction	100%
Matt Mereness	CRR Desk Procedures: Manage Network Model Changes for Defined Markets	100%
Matt Mereness	CRR Desk Procedures: Resolve CRR Account Holder Inquiries	100%
Matt Mereness	CRR Desk Procedures: Import New/Edited Account Holder Data	100%
Matt Mereness	CRR Desk Procedures: Post CRR Auction Results	100%
Matt Mereness	CRR Desk Procedures: Post CRR Ownership Data	100%
Matt Mereness	CRR Desk Procedures: Publish the CRR Network Model	100%
Matt Mereness	CRR Desk Procedures: Run the CRR Auction	100%
Matt Mereness	CRR Desk Procedures: Store Dump Cases	100%
Matt Mereness	CRR Desk Procedures: Validate CRR Auction Results	100%
Matt Mereness	CRR Desk Procedures: Create CRR Activity Calendar	100%
Matt Mereness	CRR Desk Procedures: Post Auction Notice	100%
Matt Mereness	CRR Desk Procedures: Run PCRR Annual Allocation	100%
Matt Mereness	CRR Desk Procedures: Set up the CRR Auction	100%
Matt Mereness	CRR Desk Procedures: Set Up Time of Use and Calendar Period	100%
Matt Mereness	CRR Desk Procedures: Validate NOIE Eligibility	100%
Matt Mereness	CRR Desk Procedures: Change Creditworthiness Flag	100%
Matt Mereness	CRR Desk Procedures: Investigate and Respond to a CRR Account Holder's Dispute	100%
Matt Mereness	CRR Desk Procedures: Manage PCRR Owner's Request for Reallocation (force majeure)	100%
Matt Mereness	CRR Desk Procedures: Monitor Scheduled Activities and Messages	100%
Matt Mereness	CRR Desk Procedures: Respond to Data Loss Due to Ungraceful Failover	100%
Matt Mereness	CRR Desk Procedures: Delete Unused Settlement Points	100%
Matt Mereness	CRR Desk Procedures: Submit a NOMCR for a New Flowgate	100%
Matt Mereness	CRR Desk Procedures: Submit NOMCRs for Flowgate Definition Changes	100%
Matt Mereness	CRR Desk Procedures: Conduct Offline Study	100%
Matt Mereness	CRR Desk Procedures: Re-auction Forfeited CRRs	100%
Matt Mereness	CRR Desk Procedures: Create WGR Ownership CSV and send to MMS	100%
Matt Mereness	CRR Desk Procedures: Refund Existing TCRs Using the TCC-CRR Calculation	100%

Market Rules – Protocol Transition Plan identified

Updated Matrix provided at NATF on 07/29/10

[\(Link\)](#)

- Section 7 Congestion Revenue Rights to go live on 10/01/10

TCR to CRR Transition Plan

Presented to NATF on 09/29/10 document on Readiness Center

[\(Link\)](#)

People Readiness

ERCOT Staff Supporting Market Trials

- ERCOT Business SME's have supported
 - Weekly CRR Market calls since January
 - Market Trials mailbox questions
 - CRR Market Trials Handbook

[\(Link\)](#)

ERCOT Staff Trained on System and Processes

- Internal Training Status 07/30/10
 - Market Operations Support 94% complete (197/210 items)
 - CRR Team members 100% training complete

[\(Link\)](#)

Market Participant Training Delivered

CRR Course and User Interface Training 7/22/09 – 7/22/10		
	Instructor Led	Web Based
ERCOT	4	43
MP	106	300

* Data provided by Nodal Training team based on LMS and Workshops

Overall Readiness

NATF Presentation on 07/08/10

09- Nodal Go-Live Update 100708

[\(Link\)](#)

NATF Presentation on 07/29/10

03- Nodal Go Live Update 100729

[\(Link\)](#)

NATF Presentation on 08/03/10

03- Nodal Go Live Update 100729

[\(Link\)](#)