

ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC. BOARD OF DIRECTORS RESOLUTION

WHEREAS, ERCOT Protocol Section 21.12.3, Notice to Market Participants of Effective Date for Nodal Protocol Provisions and Retirement of Zonal Protocol Provisions, provides that before a "part of the nodal market design may start operation," a vote of the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) is required affirming that the "Market Readiness Criteria for that part of the nodal market design have been met";

WHEREAS, the Section 21.12.3 certification by the Technical Advisory Committee (TAC), ERCOT staff, and the ERCOT Board regarding the satisfaction of "Market Readiness Criteria" for a particular part of the nodal market design will result in ERCOT issuing "two Notices alerting Market Participants to the effective date of Nodal Protocol sections and the retirement of Zonal Protocol sections, as applicable";

WHEREAS, the Protocols do not define the term "Market Readiness Criteria," and ERCOT, in conjunction with Market Participants, has developed specific metrics and a Nodal Readiness Scorecard that are used to determine the progress of specific parts of the nodal market design in meeting the criteria necessary for implementing the Nodal Protocols and starting operations;

WHEREAS, the ERCOT Board recognizes that there are issues that remain to be addressed regarding the implementation and operation of the Congestion Revenue Rights before the Texas Nodal Market Implementation Date (TNMID), but that none of those issues should prevent the Congestion Revenue Rights Go-Live in October 2010, which is an integral occurrence in the progress toward meeting the TNMID on schedule;

WHEREAS, the ERCOT Board has reviewed the market readiness metrics documentation that ERCOT staff has executed regarding the Congestion Revenue Rights part of the nodal market design, and has reviewed ERCOT staff's conclusion that the Congestion Revenue Rights has satisfied all of the steps necessary to make the declaration of market readiness required by Section 21.12.3, in order to authorize Congestion Revenue Rights Go-Live in October 2010;

WHEREAS, ERCOT staff provided its Section 21.12.3 certification document, attached hereto as Exhibit A, to TAC prior to TAC's consideration of this issue and on August 5, 2010 TAC voted unanimously on a similar resolution, attached hereto as Exhibit B, to certify that all Market Readiness Criteria have been met for purposes of Section 21.12.3 regarding Congestion Revenue Rights in October 2010;

THEREFORE be it RESOLVED, that this Resolution shall serve as the ERCOT Board's certification that all Market Readiness Criteria have been met, for purposes of ERCOT Protocol Section 21.12.3, regarding Congestion Revenue Rights Go-Live in October 2010.

FURTHERMORE, the ERCOT Board directs that status updates regarding outstanding issues be provided at future ERCOT Board meetings.



CORPORATE SECRETARY'S CERTIFICATE

I, Bill Magness, Interim Corporate Secretary of ERCOT, do hereby certify that, at its August 17, 2010 meeting, the ERCOT Board of Directors passed a motion approving the above Resolution by unanimous voice vote.

IN WITNESS WHEREOF, I have hereunto set my hand this 20th day of August, 2010.

Bill Magness(

Interim Corporate Secretary



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

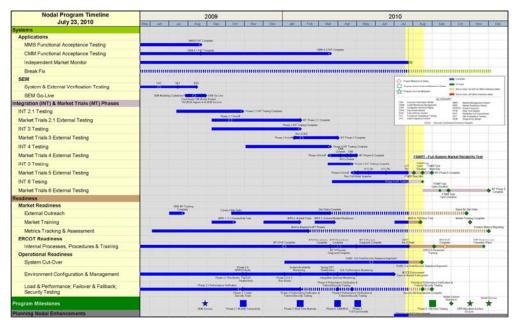
SIGNOFF

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

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.



Program Milestone Program Milestone Program Milestone Program Milestone Program Milestone Integration Testing Market Training	PMO/DA PMO/DA PMO/DA PMO/DA PMO/DA	PHASE 2.1 - MARKET CONNECTIVITY PHASE 3 - Real-Time Markets PHASE 4 - DAM/RUC PHASE 5 - Full Functionality	2/1/10	10/28/09 1/29/10 4/1/10	Complete Complete
Program Milestone Program Milestone Program Milestone Integration Testing	PMO/DA PMO/DA	PHASE 4 - DAM/RUC	4/1/10		
Program Milestone Program Milestone Integration Testing	PMO/DA			4/1/10	Complete
Program Milestone Integration Testing		PHASE 5 - Full Functionality	E (D (4.0		
Integration Testing	PMO/DA		5/3/10	5/3/10	Complete
	I IVIO/D/X	PHASE 6 - 168 Hour Testing	9/1/10	9/1/10	Green
Market Training	INT	MT 6 - End to End Testing Complete	8/16/10	8/16/10	Green
	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 PnP 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 Outover 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
	System Cutover Market Trials	System Cutover NF/ORT Market Trials MT Program Milestone PMO/DA Program Milestone PMO/DA Program Milestone PMO/DA	System Cutover Market Trials MT Market Trials MT Mr Market Trials MT Market Trialing MT MT MT MT MT MT MT MT MT M	System Cutover	System Cutover

^{*} 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	 COMPLETE 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	 COMPLETE The CRR integration with the Market, Credit, and Settlement Systems 3 remaining defects required for Go-Live 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 * All 3 defects are all Market Facing, but can be mitigated for go-live with the workarounds
CRR Account Holder Connectivity Qualification (MP15B)	09/17/10	 GREEN Current Score RED - Aug TAC presentation 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	GREEN • Current Score GREEN - Aug TAC presentation • CRRAHs 87.8% (58/66) • Participation in at least 1 of last 2 auctions/allocations
Verified CRR Auction Invoices (CO8)	Ongoing	GREEN • Current Score GREEN - Aug TAC presentation o ERCOT 100% o 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 • ERT - CRR Procedures complete
Market Rules – Protocol Transition Plan updated	07/29/10	 COMPLETE 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	COMPLETETransition 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	Status
	Completion	
ERCOT Staff	Ongoing	IN PROCESS
Supporting Market		The CRR business team continues to execute
Trials		business processes in support of Market Trials
ERCOT Staff	06/25/10	COMPLETE
Trained on System		ERT status - CRR business team training items
and Processes		complete
Market Participant	07/15/09	COMPLETE
Training Delivered		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	Status
	Completion	
NATF Review	07/08/10	IN PROCESS

	07/29/10 08/03/10	 Reviewed at NATF on 07/08/10 Reviewed at NATF on 07/29/10 NATF concerns expressed concerns on status of defects required for Go-Live Reviewed at NATF on 08/03/10 No additional system issues were identified by the Market; NATF voted to recommend to TAC
ERCOT Management Approval	08/04/10	Signoff of this document
TAC Approval	08/05/10	Any TAC concerns will be captured and used to evaluate next steps prior to BOD presentation
Board of Directors Approval	08/17/10	Target for BOD approval of Readiness Criteria
30 Day Market Notice	09/01/10	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	Special First 6 month Auction	MT P3
Auction		
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	MT P3
	notices on MIS (MIR)	

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)
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• MT3.0 Entrance Sign-off Document 01292010 (Link)

Phase 3 Program Milestone Signoff Document (<u>Link</u>)

Open Defects- Needed for Go-Live

Def	ect ID	Status	Project	Summary	Priority	Severity	Market	NPROD
	¥	.7	K,	⊽	.7	_	Facin	Migration Dat
				Incorrect Loadzone Designation from Topology Processor	2 Must Fix prior	3 Loss of		
	13512	Open	CRR	Output file	to go-live	functionality	Υ	2010-08-16
				Resource Nodes missing from Settlept output file produced	2 Must Fix prior	3 Loss of		
	14582	Open	CRR	by Topology Processor	to go-live	functionality	Υ	2010-08-16
				Topology Processor cannot consume outages information for	2 Must Fix prior	3 Loss of		
	17055	Open	CRR	CRR modeling	to go-live	functionality	Υ	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	MT P4
	Management	
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	(<u>Link</u>)
•	MT5.0 Entrance Sign-off Document 04302010 final	(<u>Link</u>)
•	Phase 4 Program Milestone Signoff Document	(<u>Link</u>)
•	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 (<u>Link</u>) 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
 - o Weekly CRR Market calls since January
 - Market Trials mailbox questions
 - o CRR Market Trials Handbook

(Link)

ERCOT Staff Trained on System and Processes

• Internal Training Status 07/30/10

(Link)

- o Market Operations Support 94% complete (197/210 items)
- o CRR Team members 100% training complete

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 (<u>Link</u>)

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)

Exhibit B: 08/05/10 TAC Resolution: Congestion Revenue Right Go-Live

WHEREAS, Protocols Section 21.12.3 (Notice to Market Participants of Effective Date for Nodal Protocol Provisions and Retirement of Zonal Protocol Provisions) provides that before a "part of the nodal market design may start operation," a vote of the Technical Advisory Committee (TAC) is required affirming that the "Market Readiness Criteria for that part of the nodal market design have been met"

WHEREAS, the Section 21.12.3 certification by TAC, Electric Reliability Council of Texas, Inc. (ERCOT) staff, and the ERCOT Board of Directors regarding the satisfaction of "Market Readiness Criteria" for a particular part of the nodal market design will result in ERCOT issuing "two Notices alerting Market Participants to the effective date of Nodal Protocol sections and the retirement of Zonal Protocol sections, as applicable";

WHEREAS, the Protocols do not define the term "Market Readiness Criteria," and ERCOT, in conjunction with Market Participants, has developed specific metrics and a Nodal Readiness Scorecard that are used to determine the progress of specific parts of the nodal market design in meeting the criteria necessary for implementing the Nodal Protocols and starting operations;

WHEREAS, the members of TAC recognize that there are issues that remain to be addressed regarding the implementation and operation of the Congestion Revenue Rights before the Texas Nodal Market Implementation Date (TNMID), but that none of those issues should prevent the Congestion Revenue Rights Go-Live in October 2010, which is an integral occurrence in the progress toward meeting the TNMID on schedule;

WHEREAS, TAC has reviewed the market readiness metrics documentation underlying ERCOT staff's recommendation regarding the Congestion Revenue Rights part of the nodal market design, and has conducted due diligence on ERCOT staff's conclusion that the Congestion Revenue Rights has satisfied all of the steps necessary to make the declaration of market readiness required by Section 21.12.3, in order to authorize Congestion Revenue Rights Go-Live in October 2010:

THEREFORE be it RESOLVED, that this Resolution shall serve as the TAC certification that all Market Readiness Criteria have been met, for purposes of ERCOT Protocols Section 21.12.3, regarding Congestion Revenue Rights Go-Live in October 2010.

FURTHERMORE, TAC directs that status updates regarding outstanding issues be provided at future TAC meetings.