



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 Electric Reliability Council of Texas, Inc. (ERCOT) Board of Directors 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 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 the ERCOT Board of Directors recognize that there are issues that remain to be addressed regarding the implementation and operation of the Network Operations Model before the Texas Nodal Market Implementation Date (TNMID), but that none of those issues should prevent the Network Operations Model Go-Live on September 1, 2010, which is an integral occurrence in the progress toward meeting the TNMID on schedule;

WHEREAS, the ERCOT Board of Directors has reviewed the market readiness metrics documentation that ERCOT staff has executed regarding the Network Operations Model part of the nodal market design, and has reviewed ERCOT staff’s conclusion that the Network Operations Model has satisfied all of the steps necessary to make the declaration of market readiness required by Section 21.12.3, in order to authorize Network Operations Model Go-Live on September 1, 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 July 20, 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 Network Operations Model Go-Live on September 1, 2010;

THEREFORE be it RESOLVED, that this Resolution shall serve as the ERCOT Board of Directors certification that all Market Readiness Criteria have been met, for purposes of ERCOT Protocol Section 21.12.3, regarding Network Operations Model Go-Live on September 1, 2010.


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



CORPORATE SECRETARY'S CERTIFICATE

I, Bill Magness, Interim Corporate Secretary of ERCOT, do hereby certify that, at its July 20, 2010 meeting, the ERCOT Board passed a motion approving the above Resolution by unanimous voice vote with no abstentions.

IN WITNESS WHEREOF, I have hereunto set my hand this 27th day of July, 2010.



Bill Magness
Interim Corporate Secretary



Nodal Program Cutover Sign-Off Document

TARGET DATE: 9/01/10
MILESTONE: Begin Network Modeling Timelines 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 the target of starting the Nodal Modeling Timelines rather than Production Ready. The expectation is that the Systems, Processes, and People readiness will continue to be evaluated through the final Go-Live decision for Nodal.

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

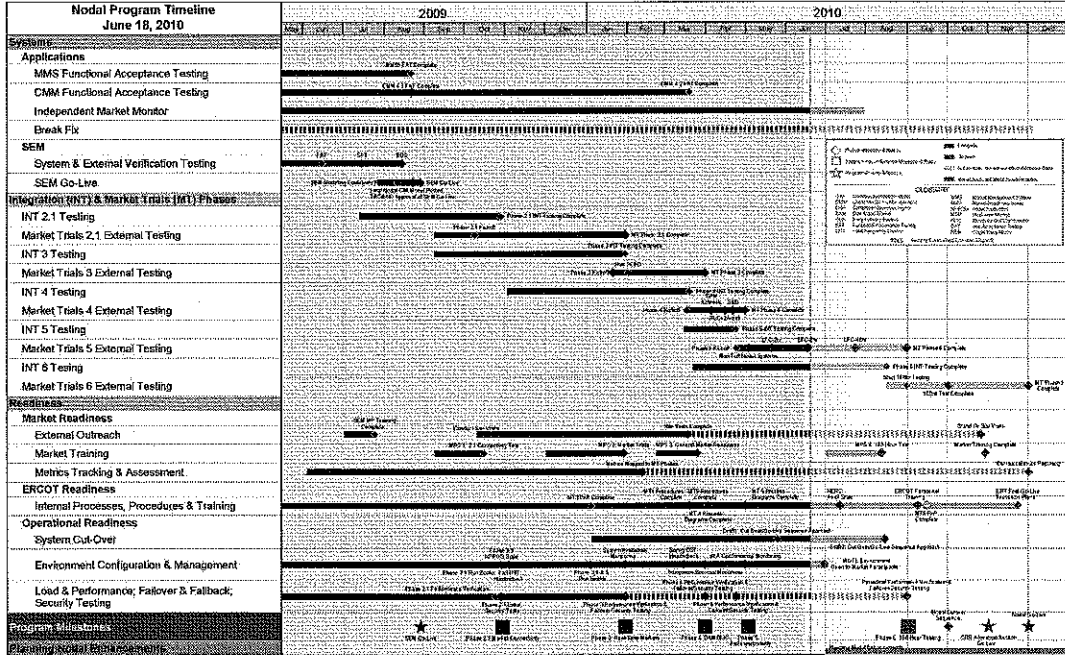
SIGNOFF

ERCOT Management signoff represents acknowledgement of the completion of the Readiness Criteria for continuing transition into 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 Network Modeling	Woody Rickerson		
VP Grid Operations and System Planning	Kent Saathoff		
Nodal Program Sr VP Chief Technology Officer	Mike Cleary		

I. Program Timelines, Project Milestones:

The Nodal Program continues to achieve critical milestones and remain on track for Go-Live. 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, September 1st the Nodal Network Modeling Timelines and Protocol requirements will be enacted.



Category	Activity Name	Project	Milestone Description	Start Date	End Date	Current Status
Program Milestone	PMO/DA	PHASE 2.1 - MARKET CONNECTIVITY	10/26/09	Complete		
Program Milestone	PMO/DA	PHASE 3 - Real-Time Markets	2/1/10	1/26/10	Complete	
Program Milestone	PMO/DA	PHASE 4 - DAM/RUC	4/1/10	4/1/10	Complete	
Program Milestone	PMO/DA	PHASE 5 - Full Functionality	5/9/10	5/9/10	Complete	
Program Milestone	PMO/DA	PHASE 6 - 168 Hour Testing	9/1/10	9/1/10	Green	
Integration Testing	INT	INT 6 - End to End Testing Complete	8/19/10	8/18/10	Green	
Market Training	ERT	MRS 4: 168 Hour Test	8/12/10	8/12/10	Green	
Internal Process, Procedures, Training	ERT	NERC As Of State	7/12/10	7/12/10	Green	
Internal Process, Procedures, Training	ERT	MT6 PnR Complete	6/3/10	9/15/10	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	3/21/10	3/21/10	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	5/17/10	6/17/10	Complete	
Market Trials	MT	LFC-48hr	7/15/10	7/23/10	Green	
Market Trials	MT	MT Phase 5 Complete	8/31/10	8/31/10	Green	
Market Trials	MT	Begin 24x7 Support	8/16/10	8/16/10	Green	
Market Trials	MT	168 Hour Test Complete	10/1/10	10/1/10	Green	
Market Trials	ERT	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	9/24/10	9/24/10	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	

II. Network Modeling System Readiness Criteria

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

Criteria	Planned Completion	Status
Single Entry Model Go-Live	8/31/09	<ul style="list-style-type: none"> • Complete • System will have been in Production for 1 year when the Timelines and Protocols Go-Live
TSP Model Validation (MP14C)	4/30/10	<ul style="list-style-type: none"> • Readiness Metric completed
Model Change Requests Tools Support Market Updates	Ongoing	<ul style="list-style-type: none"> • NOMCR's have been used for updating Nodal and to Zonal since SEM Go-Live
Regular Model Loads into Market Trials Systems	Ongoing	<ul style="list-style-type: none"> • Network Models sourced from NMMS continue to be used to Support Market Testing. Data Set Version (DSV) 20 is currently being processed for a Mid July Model Release.
8 Hour LFC Test Executed w/ Network Model for NMMS	6/17/10	<ul style="list-style-type: none"> • The ERCOT Nodal Program used the EMS system loaded from a NMMS Model to control Frequency during the 8 Hour LFC test.

III. Network Modeling Process Readiness Criteria:

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

Criteria	Planned Completion	Status
Network Operations Change Request Timeline Transition Plan Established	6/03/10	<ul style="list-style-type: none"> Presented to NDWSG and TAC Network Modeling team worked with Market Participants to compromise on transition timelines and approach Interim Update evaluation rules for Production still in process All Interim Updates will be allowed during the transition period
Network Modeling Procedures Ready	8/01/10	<ul style="list-style-type: none"> Initial drafts of identified Network Modeling Procedures documented End to End Network Modeling process continues to be improved and is expected to be ready to support Production Updates on 8/01/10
Market Rules – Protocol Transition Plan identified	7/23/10	<ul style="list-style-type: none"> Market Rules has worked with Network Modeling and Wholesale Client Services teams to identify applicable Nodal Protocol sections that will be enacted on 9/01/10.

IV. Network Modeling 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	<ul style="list-style-type: none"> The Network Modeling Process continues to be executed in support of Market Trials Key Network Modeling and Information Technology personnel continue to support this process.
ERCOT Staff Trained on System and Processes	6/22/10	<ul style="list-style-type: none"> Key Network Modeling and Information Technology personnel are ready to support the System and Model update processes. Weekly Model loads are still the target for Production Models
Market Participant Training Delivered	7/29/09	<ul style="list-style-type: none"> Market Participant training was delivered prior to SEM Go-Live The Network Modeling team continues to support any Market Participant questions

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	6/23/10	<ul style="list-style-type: none"> • Complete • The Market expressed concerns on system stability and readiness, the ERCOT team is pulling together the ERCOT responses and applicable mitigation plans for communication at TAC
ERCOT Management Approval	6/30/10	<ul style="list-style-type: none"> • Signoff of this document
TAC Approval	7/01/10	<ul style="list-style-type: none"> • Initial presentation on Readiness Criteria sent with language for a voting motion • NATF Market concerns and ERCOT responses will be communicated at TAC • Any TAC concerns will be noted and used to evaluate next steps prior to BOD presentation
Board of Director Approval	7/20/10	<ul style="list-style-type: none"> •
30 Day Market Notice	7/30/10	<ul style="list-style-type: none"> • Market Notice to be drafted pending TAC and Board of Directors feedback

VI. Appendix – Supporting Information

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

System Readiness

SEM Go-Live

Board of Directors Meeting Presentation 8/18/2009 - ([Link](#))

TSP Validation Metric MP14-C

Reported at Special Nodal Committee – GREEN @ 99.4% - ([Link](#))

Network Model NOMCR submission statistics

NOMCR submission statistics for the last year will be included in the TAC presentation

Regular Model Loads into Market Trials Systems

Data Set Versions generated for to support Market Trials – ([Link](#))

8 Hour LFC Test Executed w/ Network Model for NMMS

Market Notice – ([Link](#))

Process Readiness

Network Operations Change Request Timeline Transition Plan Established

June 3rd TAC Presentation / Document – ([Link](#)) / ([Link](#))

Network Modeling Procedures Ready

L3 Process/ Procedure Owner	Procedures	Procedure Due Date	% Complete	MT Phases	Pass / Exercised/ Scheduled
Woody Rickerson	Create and Test CIM Model		100%	MT4	Pass
Woody Rickerson	Process NOMCR submittals into the Network Operations Model Following Nodal Go-Live	1/26/2010	100%	MT4	Exercised
Woody Rickerson	Manage Changes to NMMS Validation Rules, IMM Templates, and Modeling Guidelines	1/26/2009	100%	MT4	Pass
Woody Rickerson	Manage Changes to the CIM Schema	Before 5/2010	100%	MT5	Pass
Woody Rickerson	Update User Provisioning on NMMS	9/2/2009	100%	MT4	Pass
Woody Rickerson	Process Contingency SAMRs into NOMCRs	9/2/2009	100%	MT4	Pass
Woody Rickerson	Process EPS Meter Mapping SAMRs into NOMCRs	9/2/2009	100%	MT4	Pass
Woody Rickerson	Process ICGP SAMRs into NOMCRs	9/2/2009	100%	MT4	Pass
Woody Rickerson	Process RAP, RAPC, MAP, and PCAP SAMRs into NOMCRs	9/2/2009	100%	MT5	Pass
Woody Rickerson	Process SPS SAMRs into NOMCRs	11/1/2009	100%	MT5	Pass
Woody Rickerson	Process Data Changes from Miscellaneous Sources into NOMCRs	9/2/2009	100%	MT4	Pass
Woody Rickerson	Process Data Changes from RARFs into NOMCRs	9/2/2009	100%	MT4	Pass
Woody Rickerson	Process Data Changes from Registration into NOMCRs	9/2/2009	100%	MT4	Pass
Woody Rickerson	Process NOMCRs into the Nodal Model from SEM Go-Live to Nodal Go-Live	9/2/2009	100%	MT4	Exercised
Woody Rickerson	Summary of NMMS Reports	6/25/2010	100%	168 Hour	
Woody Rickerson	Hub Bus Modification	6/25/2010	100%	go-live	
Woody Rickerson	NMMS DP Creation and Addition of Contingencies to the CIM XML files	9/4/2009	100%	MT5	Pass

The table above was consolidated the ERT tracking spreadsheet – ([Link](#))

Notes

1. Pass means that the procedure was tested in Nprod without any issue. “Exercised” means that the procedure was tested, but there were issues.
2. For the two procedures with a status of “exercised,” both are due to the lack of the Outage Extractor tool needed by NMMS to load outages into NMMS so that NOMCRs can be validated before moving into the production operations model.
 - a. The extractor loads into I-Test 6/30, NProd Target 7/9
3. For the “Summary of NMMS Reports” scheduled for the 168 hour test
 - a. This is a procedure for a manual process to put report data out of NMMS in the right folder to be picked up by MIR and posted on the MIS
 - b. It’s scheduled for the 168 hour test because all of the reports are not going to be delivered until then.
4. For the “Hub Bus modification”
 - a. Have a request out to Jane Cates for more detail on this one.

Market Rules – Protocol Transition Plan identified

June 23rd NATF - DRAFT_090110 Protocol Transition Matrix_062210 ([Link](#))

People Readiness

ERCOT Staff Supporting Market Trials

- Issues tracked in Network Model Data Integrity Work plan

ERCOT Staff Trained on System and Processes

- Woody confirmed that key resources completed initial training on 6/23, ongoing process and procedure improvements will continue during the Transition Plan to final Production timelines

Market Participant Training Delivered

Statistics from June 30, 2009 – June 30, 2010

From June 30, 2009 to June 30, 2010	
Row Labels	Count of Complete
ERCOT	55
Instructor led	16
Web-based	38
SEM Go-Live Training	1
MP	171
Instructor led	60
Web-based	37
SEM Go-Live Training	74
Other	13
Instructor led	3
Web-based	10
TRE	3
Instructor led	1
Web-based	2
Grand Total	242

Overall Readiness

NATF Presentation for Go-Live ([Link](#))

TECHNICAL ADVISORY COMMITTEE RESOLUTION

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 Network Operations Model before the Texas Nodal Market Implementation Date (TNMID), but that none of those issues should prevent the Network Operations Model Go-Live on September 1, 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 Network Operations Model part of the nodal market design, and has conducted due diligence on ERCOT staff’s conclusion that the Network Operations Model has satisfied all of the steps necessary to make the declaration of market readiness required by Section 21.12.3, in order to authorize Network Operations Model Go-Live on September 1, 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 Network Operations Model Go-Live on September 1, 2010;

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

Dated: July 20, 2010