# Technical Advisory Committee

Presentation to the ERCOT Board of Directors February 16, 2010

### TAC Report Summary

- O PRRs for Board approval
- 5 NPRRs for Board approval
- 1 SCR for Board approval
- Report on Approved Guide Revision Requests
- Preview: Future Board meetings

### Protocol Revision Requests

None

### Nodal Protocol Revision Requests

#### For Inclusion in the Nodal Parking Deck:

NPRR169 Clarify the Calculation and Posting of LMPs for the Load Zone and LMPs for each Hub (On 1/19/10, the ERCOT Board tabled NPRR169 for one month.)

#### For Texas Nodal Market Implementation Date:

- NPRR199 Shift Factors by Resource Node
- NPRR200 MMS DC Tie Schedule Data Resource
- NPRR201 Calculation of Transmission and Distribution Losses
- NPRR206 Nodal Market Day-Ahead Market Credit Requirements

# NPRR169, Clarify the Calculation and Posting of LMPs for the Load Zone and LMPs for each Hub

Purpose (ERCOT)	This NPRR clarifies language that specifies the calculation and posting of Locational Marginal Prices (LMPs) for the Load Zone and "LMPs for each Hub."		
Market Impact	N/A		
ERCOT Impact	TBD Due to "not necessary for go-live" status designation by ERCOT CEO, the Impact Analysis will be conducted at a future date.		
TAC Vote	On 1/6/10, TAC unanimously voted to recommend approval with a priority of High.		
Board Vote	On 1/19/10, the ERCOT Board tabled NPRR169 for one month.		
CEO Determination	Not necessary prior to go-live		
Effective Date	Post Texas Nodal	Implementation Date	

### NPRR199, Shift Factors by Resource Node

Purpose (ERCOT)	This NPRR adds the reporting requirement for ERCOT to provide Shift Factors by Resource Node.		
Market Impact	N/A		
System Change	No N/A		
TAC Vote	On 2/4/10, TAC unanimously voted to recommend approval of NPRR199 as recommended by PRS in the 01/21/10 PRS Report.		
CEO Determination	Necessary for Go-Live		
Effective Date	Upon Nodal Imp	lementation	

### NPRR199, Shift Factors by Resource Node

Item Reviewed	No Impact	Impact	Description
Budget	$\Rightarrow$		
Staffing	*		
Computer Systems	$\Rightarrow$		
Business Functions	$\Rightarrow$		
Grid Operations	$\Rightarrow$		
Credit Monitoring/ Liability	$\Rightarrow$		

### NPRR200, MMS DC Tie Schedule Data Source

Purpose (ERCOT)	Changes the source of Direct Current Tie (DC Tie) Schedules for use by the Market Management System (MMS) to an associated QSE submitted Electronic Tag (e-Tag). This NPRR also revises the definition of DC Tie Schedule and adds a new acronym to Section 2, Definitions and Acronyms.		
Market Impact	N/A		
System Change	No N/A		
TAC Vote	On 2/4/10, TAC unanimously voted to recommend approval of NPRR200 as recommended by PRS in the 01/21/10 PRS Report.		
CEO Determination	Necessary for Go-Live		
Effective Date	Upon Nodal Imp	lementation	

### NPRR200, MMS DC Tie Schedule Data Source

Item Reviewed	No Impact	Impact	Description
Budget	$\Rightarrow$		
Staffing	*		
Computer Systems	$\Rightarrow$		
Business Functions	$\Rightarrow$		
Grid Operations	$\Rightarrow$		
Credit Monitoring/ Liability	$\Rightarrow$		

### NPRR201, Calculation of Transmission and Distribution Losses

Purpose (ERCOT)	Revises the Nodal Protocol language to align with the current practice for calculation of Transmission Losses and Distribution Losses on a seasonal versus monthly basis.			
Market Impact	N/A			
System Change	No N/A			
TAC Vote	On 2/4/10, TAC unanimously voted to recommend approval of NPRR201 as recommended by PRS in the 01/21/10 PRS Report and as revised by TAC.			
CEO Determination	No Opinion on need for Go-Live			
Effective Date	Upon Nodal Imp	lementation		

### NPRR201, Calculation of Transmission and Distribution Losses

Item Reviewed	No Impact	Impact	Description
Budget	$\Rightarrow$		
Staffing	$\bigstar$		
Computer Systems	$\Rightarrow$		
Business Functions	$\Rightarrow$		
Grid Operations	$\Rightarrow$		
Credit Monitoring/ Liability	$\Rightarrow$		

## NPRR206, Nodal Market Day-Ahead Market Credit Requirements

Purpose (Luminant)	Revises the nodal collateral requirements by QSEs who participate in the Day-Ahead Market (DAM). The change will potentially reduce the collateral burden for QSEs' bids while sufficiently collateralizing ERCOT. The revisions are based on discussions held at the Market Credit Working Group (MCWG).			
Market Impact	Yes			
System Change	Yes N/A			
TAC Vote	On 2/4/10, TAC voted via roll call vote to recommend approval of NPRR206 as amended by the 2/1/10 Luminant comments and as revised by TAC with direction to the MCWG to provide a proposal to TAC for a conservative nodal market start paradigm for the first 60 days of DAM operation.			
CEO Determination	Necessary for Go-Live			
Effective Date	Upon Nodal Imp	lementation		

### NPRR206, Nodal Market Day-Ahead Market Credit Requirements

Item Reviewed	No Impact	Impact	Description
Budget		*	\$100,000 - \$250,000
Staffing		*	0.25 post Go-Live FTE impact
Computer Systems		*	MMS and Integration Testing
Business Functions		*	Existing business processes will be modified
Grid Operations	$\Rightarrow$		
Credit Monitoring/ Liability	*		To be determined

### SCR 755, ERCOT.com Website Enhancements

Purpose	This SCR requests for ERCOT to apply needed improvements to the ERCOT website identified as a result of ERCOT's request to the Technical Advisory Committee (TAC) and other subcommittees to help identify desired improvements to the ERCOT website.			
Market Impact	To be determined - Due to "Not Needed for Go-Live" designation by the ERCOT CEO, the Impact Analysis for this item will be conducted at a future date.			
System Change	Yes	Yes		
TAC Vote	On 1/6/10, TAC unanimously voted to recommend approval of SCR755 as recommended by PRS in the 12/17/09 PRS Recommendation Report. (Parking Deck rank of Medium)			
CEO Determination	Not necessary prior to go-live			
Effective Date	Post Texas Nodal	Market Implementation Date		

# Nodal Parking Deck Approved by Board of Directors

Source Document	Title	Priority	Current Status
NPRR131	Ancillary Service Trades with ERCOT	High	BoD Approved 1/19/2010
NPRR181	FIP Definition Revision	High	BoD Approved 1/19/2010
NPRR153	Generation Resource Fixed Quantity Block Offer	Medium	BoD Approved 1/19/2010
NPRR164	Resubmitting Ancillary Service offers in SASM	Medium	BoD Approved 1/19/2010

### Nodal Parking Deck - Pending Approval

Source Document	Title	Suggested Priority	Current Status
NPRR169	Clarify the Calculation and Posting of LMPs for the Load Zone and LMPs for each Hub	High	Tabled at BoD TAC approved 1/6/2010
SCR755	ERCOT.com Website Enhancements	Medium	Pending BoD Consideration TAC approved 1/6/2010
NPRR146	ICCP Telemetry Information Submittals	TBD	Tabled at TAC PRS approved 2/19/2009
NPRR156	Transparency for PSS and Full Interconnection Studies	TBD	Tabled at PRS TPTF approved 2/23/2009
SCR756	Enhancements to the MarkeTrack Application	TBD	Tabled at RMS
SCR757	Real-Time Wind Production by Zone	TBD	Pending at WMS

### Guide Revision Requests approved by TAC

- LPGRR037 Replace Wording Truncated from LPGRR035
- NOGRR031 Synchronization with OGRR218, Revise Training Requirements for QSEs

### Quarterly Renewables Report

- Installed wind generation capacity in ERCOT at December 31, 2009 = 8,916 MW
- The following new wind generation was added in the 4<sup>th</sup> Quarter of 2009:
  - Langford Wind Power 150 MW (Tom Green County)
  - Loraine Wind Park I 126 MW (Mitchell County)
  - Loraine Wind Park II 125 MW (Mitchell County)
- Total new wind generation capacity in ERCOT increased from 8,515 MW to 8,916 MW, an increase of 401 MW from the last report.
- One wind farm signed Generation Interconnect Agreements since the last report:
  - Paplote Creek Wind Farm II 198 MW (San Patricio County)

### Multiple Generator Interconnection TF Report

- Issue raised regarding treatment of generators that are interconnected to grid at multiple points.
- MIG Task Force created to address issue and produce policy white paper.
- TAC voted to endorse MIG whitepaper and instructed WMS to prepare NPRRs.
- Most controversial was the issue of notification prior to a generator switching between interconnected points.
- ERCOT supported a notice period of 91 days prior to allowing a switch between points.
- TAC agreed with the ERCOT position but instructed ROS to develop process for guidance to switch as soon as possible taking into account reliability.

### 2010 Closely Related Element (CRE) Addition

- Approved Temple Pecan Creek to Temple Switch N S CRE
- Approved Temple Pecan Creek to Temple Switch S N CRE
- Both CREs were recommended by ERCOT

#### NPRR 091 Discussion

- TAC has been considering an NPRR that would create a mitigated offer cap during the early days of the Nodal market. The intent of the NPRR was to allow for the Nodal market to begin operation with a minimized risk of high or extremely low energy prices that may be caused by unexpected aspects of the nodal market system operation. NPRR091, Scarcity Pricing and Mitigated Offer Cap During the Period Commencing on the Nodal Market Implementation Date and Continuing for a Total of 45 Days, was originally considered and agreed by the TAC subcommittees in February 2008, over two years ago. Further efforts on the NPRR were delayed due to the delay in the nodal system implementation date. Since that time, there has been little additional attention paid to this NPRR until it was removed from the table in recent TAC discussions. At our request, TAC members filed additional comments to the NPRR last week.
- TAC is concerned about potential conflicts with the proposed NPRR and PUCT rules 25.502 (g) and 25.505 (g). As a consequence, we are consulting with PUCT Staff on the matter. TAC is willing to continue to consider the NPRR and may approve it for Board consideration at a future Board meeting. However, TAC wanted to advise the Board of its actions and allow the Board to provide TAC with its counsel regarding next steps on this proposed Nodal protocol change.

### 2010 TAC Goals (Draft)

- Facilitate stakeholder engagement in the ERCOT nodal market implementation program and ensure the activities of TAC and its subcommittees are properly focused on delivering the nodal project by its intended Go-Live date.
- 2. Ensure that Nodal Parking Deck issues are properly framed and ready to be addressed following the start of the nodal market.
- 3. Assist ERCOT staff in the identification and resolution of nodal transition issues.
- 4. Complete a renewable technologies integration plan which addresses the various issues and potential solutions necessary to accommodate increasing amounts of renewable energy into the ERCOT system.
- 5. Maintain Stakeholder attention on reliability.

# Preview: Issues for Consideration at Future Board Meetings

- Wind Cost Allocation TF Report (March)
- NPRR091 Scarcity Pricing and Mitigated Offer Cap During the Period Commencing on the Nodal Market Implementation Date and Continuing for a Total of 45 Days (March)
- PRR833 Primary Frequency Response Requirement from Existing WGRs (April)