# Technical Advisory Committee

Presentation to the ERCOT Board of Directors
January 19, 2010

#### TAC Report Summary

- 3 PRRs for Board approval
- 8 NPRRs for Board approval (5 of which are Parking Lot)
- Report on Approved Guide Revision Requests
- Preview: Future Board meetings

#### Protocol Revision Requests

- PRR 811 Real Time Production Potential
- PRR 832 Deletion of Schedule Control Error (SCE) Posting Requirement
- PRR 842 Addition of Generic Startup Cost and Minimum Energy Cost for Diesel URGENT

#### PRR811, Real Time Production Potential

Purpose (Wind Coalition)	Establishes a requirement for Wind Generation Resources (WGRs) to telemeter a Real Time signal indicating the Real Time Production Potential which will be a function of wind and turbine availability at the time		
Benefit		Increase wind generation production by providing more complete information to ERCOT	
Market Impact	N/A		
System Change	No N/A		
Assumptions	N/A		
TAC Vote	TAC unanimously voted to recommend approval as revised by the 12/22/09 WMS Comments.		
CEO Determination	No opinion for go-live		
Effective Date	February 1, 2010		

#### PRR811, Real Time Production Potential

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

## PRR832, Deletion of Schedule Control Error (SCE) Posting Requirement

Purpose (ERCOT)	This PRR removes the language that requires ERCOT to post the SCE report seven days after the Operating Day to the Market Information System (MIS).		
Benefit	Clarity of the requirement to provide SCE information.		
Market Impact	N/A		
System Change	No N/A		
TAC Vote	TAC voted to endorse and forward the 11/19/09 PRS Recommendation Report and Impact Analysis for PRR832 to the Board. There was one abstention from the Independent Power Marketer Market Segment.		
CEO Determination	No opinion		
Effective Date	February 1, 2010	February 1, 2010	

### PRR832, Deletion of Schedule Control Error (SCE) Posting Requirement

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

### PRR842, Addition of Generic Startup Cost and Minimum Energy Cost for Diesel – URGENT

Purpose (STEC)	This PRR adds generic costs for the Diesel Resource Category, which also includes other gas-fired Resources (including reciprocating engines). This PRR makes the minimum energy costs for diesel consistent with what is currently in the Nodal Protocols.		
Benefit	Allows diesel and other reciprocating units to be reimbursed for their O&M costs and minimum energy costs when called upon for Out of Merit Order (OOM) instructions. Startup costs for these units are less than for other more "conventional" types of thermal units		
Market Impact	N/A		
System Change	No N/A		
TAC Vote	TAC unanimously voted to recommend approval.		
CEO Determination	No Opinion		
Effective Date	February 1, 2010	February 1, 2010	

### PRR842, Addition of Generic Startup Cost and Minimum Energy Cost for Diesel – URGENT

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

#### Nodal Protocol Revision Requests

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

- NPRR 131 Ancillary Service Trades with ERCOT
- NPRR153 Generation Resource Fixed Quantity Block
- NPRR164 Resubmitting Ancillary Service Offers in SASM
- NPRR169 Clarify the Calculation and Posting of LMPs for the Load Zone and LMPs for each Hub
- NPRR181 FIP Definition Revision

#### For Texas Nodal Market Implementation Date:

- NPRR194 Synchronization of Zonal Unannounced Generation Capacity Testing Process
- NPRR197 Section 21, Synchronization of Zonal Protocols
- NPRR202 Clarification of Network Operations Model and State Estimator Postings

### NPRR Parking Deck Summary

- On 2/17/09, the Board approved PRR799, ERCOT CEO Approval of NPRRs and SCRs Prior to Posting on MIS. PRR799 gave ERCOT CEO authority to designate which NPRRs and SCRs are necessary for Nodal golive.
- On 8/18/09, the Board approved the Parking Deck Concept for NPRRs as recommended by the 8/6/09 TAC. In summary:
  - If the CEO designates the NPRR not needed for Nodal go-live, PRS & TAC will still consider the language, vote on the merits of the NPRR, and recommend a priority for the NPRR on the Nodal tab of the Project Prioritization List (PPL).
  - ERCOT will postpone Impact Analysis of the Parking Deck items until a future date. The recommended priority will assist ERCOT in determining which Impact Analyses should be completed first as well as allow for post-go-live release planning.
  - If the Board approves the NPRR with a post-go-live designation, the Board concurs that NPRR is not needed for Nodal go-live. Language will be grey-boxed until it can be implemented.
  - At some future date (mid to late 2010), ERCOT will complete Impact Analyses. Similar to today's annual budget and project prioritization process, stakeholders and the Board will recommend which projects should be funded.

#### NPRR131, Ancillary Service Trades with ERCOT

Purpose (NRG Texas)	In today's zonal market, Resource Entities can, if they choose, procure Ancillary Services from ERCOT. This functionality was omitted in the Nodal Market design. Currently, the Nodal Market design only allows QSEs with Ancillary Service Obligations the option in the Day-Ahead Market (DAM) of either: 1) self-providing, or 2) procuring all or a portion of their obligation from ERCOT. This NPRR would allow QSEs with Ancillary Services responsibilities, i.e., Resource Entities, the same functionality.		
Benefit	Allow all QSEs, whether they represent Resources, Loads, or both, to procure Ancillary Services in the DAM.		
Market Impact	N/A		
System Change	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	TAC voted to recommend approval and a a priority of High with one abstention from the Independent Power Marketer Market Segment.		
CEO Determination	Not necessary prior to go-live		
Effective Date	Post Texas Nodal	l Implementation Date	

### NPRR153, Generation Resource Fixed Quantity Block

Purpose (ERCOT)	This NPRR revises existing Ancillary Service Offer criteria to provide for offers of Non-Spinning Reserve (Non-Spin) service in fixed quantity and time blocks from Off-Line Generation Resources similar to that for Load Resources.		
Benefit	May result in lower offers for Non-Spin Ancillary Service from Off- Line Resources. More efficient market design.		
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	TAC unanimously voted to recommend approval with a priority of Medium.		
CEO Determination	Not necessary prior to go-live		
Effective Date	Post Texas Noda	l Implementation Date	

### NPRR164, Resubmitting Ancillary Service Offers in SASM

Purpose (ERCOT)	This NPRR revises existing rules for resubmitting Ancillary Service Offers in the Adjustment Period to provide for resubmitting those Ancillary Service Offers not awarded in the previous markets at the higher of the DAM MCPC for the corresponding Ancillary Service or the Resource's offer price for the corresponding Ancillary Service in the DAM.		
Benefit	Allows QSEs to take full advantage of Ancillary Service and energy co- optimization in the DAM and participate in the Supplemental Ancillary Service Market (SASM) by being able to resubmit Ancillary Service Offers at the higher of DAM MCPC or its offer price in the DAM.		
Market Impact	Makes ERCOT implementation of Ancillary Service Offer resubmission rules easier.		
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	TAC unanimously voted to recommend approval with a priority of Medium.		
CEO Determination	Not necessary prior to go-live		
Effective Date	Post Texas Nodal	Implementation Date	

## 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."		
Benefit	Calculation and posting of LMPs for the Load Zones and Hubs for each SCED interval will be used by all Market Participants including those who need to project when demand response is needed. Used by retail Customers who are consuming power at Real-Time prices and used by generators who may desire to sell energy at Hub prices.		
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	TAC unanimously voted to recommend approval with a priority of High.		
CEO Determination	Not necessary prior to go-live		
Effective Date	Post Texas Nodal	Implementation Date	

#### NPRR181, FIP Definition Revision

Purpose (Luminant)	This NPRR revises the definition of Fuel Index Price (FIP) to correctly account for the timing difference between ERCOT's application of the FIP in its systems (midnight to midnight) and the timing of natural gas prices reflected by the index (i.e., hour ending 1000 to 0900). The fuel price index published in Gas Daily, in the Daily Price Survey, under the heading "East-Houston-Katy, Houston Ship Channel" for any particular day reflects natural gas prices available to users from hour ending 1000 of the particular day to hour ending 0900 of the next day (i.e., the normal "gas day"). This NPRR also adds a new definition for the term "Gas Day."			
Benefit	More accurate pricing of energy produced from natural gas-fueled generation.			
Market Impact	N/A	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	TAC unanimously voted to recommend approval with a priority of High.			
CEO Determination	Not necessary prior to go-live			
Effective Date	Post Texas Nodal Implementation Date			

# NPRR194, Synchronization of Zonal Unannounced Generation Capacity Testing Process

Purpose (ERCOT)	Replaces the seasonal testing requirement with unannounced Generation Resource testing and adds a requirement for QSEs to seasonally update their Resources' High Sustainable Limits (HSLs.) Also leverages existing emergency operations Settlement functionality to provide a mechanism to compensate a Generation Resource for the additional energy above the pre-test Security-Constrained Economic Dispatch (SCED) Base Point during the unannounced Generation Resource test period. Synchronizes the Nodal Protocols with the process added to the zonal Protocols pursuant to PRR750, Unannounced Generation Capacity Testing.  Improved accuracy in reserve reporting.			
Benefit				
Market Impact	N/A			
System Change	No	N/A		
TAC Vote	TAC unanimously voted to recommend approval.			
CEO Determination	Necessary for Go-Live			
Effective Date	Upon Nodal Imp	Upon Nodal Implementation		

# NPRR194, Synchronization of Zonal Unannounced Generation Capacity Testing Process

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

### NPRR197, Section 21, Synchronization of Zonal Protocols

Purpose (ERCOT)	This NPRR synchronizes zonal Protocol Section 21 with the current Nodal Protocols and includes changes from PRR821, Update of Section 21, Process for Protocol Revision.		
Benefit	Completion of Nodal Protocols.		
Market Impact	N/A		
System Change	No	N/A	
TAC Vote	TAC unanimously voted to recommend approval.		
CEO Determination	Necessary for Go-Live		
Effective Date	Upon Nodal Implementation		

### NPRR197, Section 21, Synchronization of Zonal Protocols

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

### NPRR202, Clarification of Network Operations Model and State Estimator Postings

Purpose (NATF)	This NPRR addresses the confidentiality of data in the Network Operations Model and Hourly State Estimator report. The language introduces a newly defined term for redacted-version of the Network Operations Model for non-Transmission Service Providers (TSPs) and also removes Private Use Network data from the Hourly State Estimator report.		
Benefit	N/A		
Market Impact	N/A		
System Change	Yes	Changes to the following systems: NMMS, CDR, EIS, MID, MIR, EDW & MIS	
TAC Vote	TAC voted via roll call vote to recommend approval.		
CEO Determination	Determined this should move through stakeholder process.		
Effective Date	Upon Nodal Implementation		

### NPRR202, Clarification of Network Operations Model and State Estimator Postings

Item Reviewed	No Impact	Impact	Description
Budget			Preliminary \$100,000 - \$250,000
Staffing	$\bigstar$		
Computer Systems			NMMS, CDR, EIS, MID, MIR, EDW & MIS
Business Functions			Current business processes will be modified.
Grid Operations	$\bigstar$		
Credit Monitoring/ Liability	$\bigstar$		

#### Guide Revision Requests approved by TAC

- NOGRR029 Synchronization of OGRR224, Special Protection System (SPS) Operations Under No Contingency
- OGRR223 Real-Time Production Potential
- COPMGRR015 Creating Section 8, ERCOT Settlement and Invoice Process

#### Preview: Future Board meetings

- PRR833 Primary Frequency Response Requirement from Existing
   WGRs (February)
- Multiple Generator Interconnection TF Report (March)
- Wind Cost Allocation TF Report (March)