
TAC Update

Brad Jones and Kenan Ogelman
TAC Chair and Vice Chair

ERCOT Board Meeting

December 12, 2011

Summary of TAC Update

Revision Requests Unanimously Recommended for Approval by TAC:

- NPRR377, Alternate Inputs to Base Point Deviation Charge
- NPRR395, CRR Auction Offer Award Disclosure
- NPRR398, Changes to Resource Category Minimum-Energy Generic Heat Rates
- NPRR399, Updates to Protocol Sections Related to Settlements and Billing
- NPRR401, Clarification of Timing for a Generation Resource to be Considered Self-Committed
- NPRR403, Revised FASD Calculation for TX SET Version 4.0 Release
- NPRR404, Clarification of Form of Notice of Suspension of Operations
- NPRR406, Clarification of the Timeline for Calculating the Value of X at Minimum Energy Level
- NPRR426, Standing Non-Spin Deployment in the Operating Hour for Generation Resources Providing On-Line Non-Spin - URGENT
- NPRR427, Energy Offer Curve Requirements for Generation Resources Assigned Reg-Up and RRS - URGENT
- NPRR428, Energy Offer Curve Requirements for Generation Resources Assigned Non-Spin Responsibility - URGENT
- PGRR009, New Planning Guide Section 6.8, Resource Registration Procedures

Summary of TAC Update

Revision Requests Non-Unanimously Recommended for Approval by TAC:

- NPRR351, SCED Look-Ahead Step 1: Pricing: Calculate Non-Binding Prices and Basepoints for Initial Research into SCED Look-Ahead and allow Consumers to have a Forward Price Projection - URGENT

Notice of Revision Requests Rejected by TAC

Notice of Guide Revisions Approved by TAC

Annual Review of Certain Credit Parameters

Holistic Approach to Congestion Irresolvable by SCED (Vote)

Addressing Gaps Between Operations and Planning to Be Able to Identify Constraints Not Resolvable By SCED

Future Agenda Items

**Revision Requests Unanimously Recommended
for Approval by TAC**

NPRR377, Alternate Inputs to Base Point Deviation Charge

Purpose (ERCOT)	This NPRR will align the Adjusted Aggregated Base Points (AABP) formula with the inputs to the Generation Resource Energy Deployment Performance (GREDP) measure. The current formula for AABP inaccurately assesses Base Point Deviation charges for under and over generation when shortened Security-Constrained Economic Dispatch (SCED) intervals occur. Additionally, this NPRR includes bill determinants to track the over and under generated volumes and correct language for bill determinants P1 and P2.
TAC Decision	On 11/3/11, TAC unanimously voted to recommend approval of NPRR377 as recommended by PRS in the 10/20/11 PRS Report.
Effective Date/Priority	Upon System Implementation – Priority High; Rank 35
ERCOT Impact	\$150k - \$165k (PPL Funding); Energy Management System (EMS), Commercial Systems Integration (CSI), Settlements and Billing (S&B), Extracts and Reporting (EIS), and ERCOT Storage
Business Case Highlights	<ul style="list-style-type: none"> • Eliminates market-wide exemptions from Base Point Deviation penalties in 15-min Settlement Intervals which contain SCED for executions less than 4 mins in duration. Allows the Base Point Deviation assessment to be performed in the Settlement Interval. • Sample since Jan-2011: short-SCED exemptions range from 30-35 Settlement Intervals per month. Average value of Base Point Deviation charges per Settlement Interval is approx \$250 per 15-min interval. Estimated would have resulted in approx \$7500-\$8750 additional Base Point Deviation penalties per month. • Potential increased Base Point Deviation penalties to Generators. • Potential for increased credits to Load.

NPRR395, CRR Auction Offer Award Disclosure

Purpose (DC Energy)	This NPRR adds a requirement for ERCOT to post CRR Auction offer awards following each CRR Auction in the exact fashion CRR Auction bid awards are currently posted on the Market Information System (MIS) Public Area.
TAC Decision	On 10/6/11, TAC unanimously voted to recommend approval of NPRR395 as recommended by TAC in the 9/22/11 PRS Report.
Effective Date/Priority	Upon System Implementation – Priority High; Rank 19.5
ERCOT Impact	\$40k - \$50 (PPL Funding), Impacts to Congestion Revenue Rights (CRR) systems
Business Case Highlights	<ul style="list-style-type: none"> • Symmetry in the CRR market result posting leads to greater transparency and more efficient CRR Auction pricing outcomes. • Positive impact to consumer segment in the form of increased value to cost convergence of CRR instruments. • Sponsor believes that all other RTOs/ISOs post information on awarded CRR offers in the same fashion that information is posted regarding awarded bids.

NPRR398, Changes to Resource Category Minimum-Energy Generic Heat Rates

Purpose (ERCOT)	This NPRR changes the Resource Category Minimum-Energy Generic Heat Rates for several fuel type Resource.
TAC Decision	On 10/6/11, TAC voted to recommend approval of NPRR398 as recommended by PRS in the 9/22/11 PRS Report. There were two abstentions from the Independent Generator Market Segment.
Effective Date/Priority	January 1, 2012
ERCOT Impact	Less than \$5k (O&M funding), minor impacts to S&B and Market Management System (MMS)
Business Case Highlights	<ul style="list-style-type: none">• Reduce Minimum-Energy Cost Guarantee while ensuring that Resources are able to recover their actual costs.• QSEs may have to update their Settlement systems to accept new generic heat rates.• Consumers will not be impacted directly except with possible lower Make-Whole Payment charges.

NPRR399, Updates to Protocol Sections Related to Settlements and Billing

Purpose (ERCOT)	This NPRR includes updates to miscellaneous, non-substantive corrections to various Protocol sections related to Settlements and billing. Revisions include corrections to Protocol references and variable clarifications.
TAC Decision	On 10/6/11, TAC unanimously voted to recommend approval of NPRR399 as recommended by PRS in the 9/22/11 PRS Report and as amended by the 10/5/11 ERCOT comments.
Effective Date/Priority	January 1, 2012
ERCOT Impact	No Impacts
Business Case Highlights	Improved accuracy and clarity of Protocols.

NPRR401, Clarification of Timing for a Generation Resource to be Considered Self-Committed

Purpose (ERCOT)	This NPRR removes language that broadly allows QSEs to self-commit between the time Reliability Unit Commitment (RUC) executes and the time that the QSE receives the RUC instruction, but does not speak to the Settlement treatment and can result in conflicting commitment information. This NPRR also clarifies the timing by which a QSE may self-commit a Generation Resource, specifically the timing of the self-commitment required in order for the Generation Resource to be considered self-committed by a RUC process and in Settlement of that same RUC process.
TAC Decision	On 11/3/11, TAC unanimously voted to recommend approval of NPRR401 as recommended by PRS in the 10/20/11 PRS Report.
Effective Date/Priority	January 1,2012
ERCOT Impact	No Impacts
Business Case Highlights	Clarification of RUC instructions and Settlement treatment.

NPRR403, Revised FASD Calculation for TX SET Version 4.0 Release

Purpose (Market Coordination Team)	This NPRR revises the First Available Switch Date (FASD) calculation to include the availability of same day switches on Saturday.
TAC Decision	On 11/3/11, TAC unanimously voted to recommend approval of NPRR403 as recommended by PRS in the 10/20/11 PRS Report.
Effective Date/Priority	Upon System Implementation of PR11002_01, Texas SET 4.0.
ERCOT Impact	Minor impacts to Siebel and PaperFree; no impacts to ERCOT business functions – all costs managed under PR11002_01.
Business Case Highlights	<ul style="list-style-type: none">• Allows Transmission and/or Distribution Providers (TDSPs) to receive Saturday as a FASD, which will allow same day switches on Saturday for applicable Advanced Metering System (AMS) meters.• Market Participants can provide Customers with same day switches on Saturday for applicable AMS meters.• Customers will have the added option of same day switches on Saturday for applicable AMS meters.

NPRR404, Clarification of Form of Notification of Suspension of Operations

Purpose (ERCOT)	This NPRR removes an obsolete reference to excess energy payment options from the form of Notification of Suspension of Operations in Section 22, Attachment E, Notification of Suspension of Operations.
TAC Decision	On 11/3/11, TAC unanimously voted to recommend approval of NPRR404 as recommended by PRS in the 10/20/11 PRS Report.
Effective Date/Priority	January 1, 2012
ERCOT Impact	No Impacts
Business Case Highlights	Clarified Protocols

NPRR406, Clarification of the Timeline for Calculating the Value of X at Minimum Energy Level

Purpose (ERCOT)	This NPRR clarifies that the effective date for the value of X as applied to fuel at the minimum energy level is described in the Verifiable Cost Manual.
TAC Decision	On 11/3/11, TAC unanimously voted to recommend approval of NPRR406 as recommended by PRS in the 10/20/11 PRS Report.
Effective Date/Priority	January 1, 2012
ERCOT Impact	No Impacts
Business Case Highlights	<ul style="list-style-type: none">• Provides consistency between Protocol Sections 5.6.1.1 and 5.6.1.2.• Reduces potential confusion regarding how ERCOT applies the value of X.

NPRR426, Standing Non-Spin Deployment in the Operating Hour for Generation Resources Providing On-Line Non-Spin - URGENT

Purpose (ERCOT)	This NPRR requires QSE action that routinely releases certain On-Line Non-Spin energy to SCED without the need for ERCOT to issue a Non-Spin deployment instruction. The changes in Section 6.5.7.6.2.3 do not invalidate any other existing requirements contained in this section. Those Generation Resources not subject to the provisions contained in paragraph (5) of Section 6.5.7.6.2.3 must respond to any Non-Spin deployment or recall instruction issued by ERCOT Operators in accordance with the TAC-approved Non-Spinning Reserve Service Deployment and Recall Procedure.
TAC Decision	On 12/1/11, TAC unanimously voted to recommend approval of NPRR426 as recommended by PRS in the 11/17/11 PRS Report.
Effective Date/Priority	January 5, 2012
ERCOT Impact	No Impacts
Business Case Highlights	<ul style="list-style-type: none">• To address the Commission's discussion raised at its October 27, 2011 Open Meeting regarding Docket No. 37897, Proceeding Relating to Resource and Reserve Adequacy and Shortage Pricing.

NPRR427, Energy Offer Curve Requirements for Generation Resources Assigned Reg-Up and RRS - URGENT

Purpose (ERCOT)	This NPRR adds a requirement for the Energy Offer Curve to be set at the System-Wide Offer Cap for the capacity reserved for Responsive Reserve (RRS) Service Ancillary Service Resource Responsibility and Regulation Up (Reg-Up) Ancillary Service Resource Responsibility because of the Day-Ahead Market (DAM) or Supplemental Ancillary Services Market (SASM) Ancillary Service awards, or Self-Arranged Ancillary Service Quantity.
TAC Decision	On 12/1/11, TAC voted to recommend approval of NPRR427 as amended by the 11/29/11 ERCOT comments and as revised by TAC. There were two abstentions from the Cooperative and Consumer Market Segments.
Effective Date/Priority	January 5, 2012
ERCOT Impact	No Impacts
Business Case Highlights	<ul style="list-style-type: none"> • To address the Commission's discussion raised at its October 27, 2011 Open Meeting regarding Docket No. 37897. • This NPRR will mitigate price suppression during deployment of reserve services to more accurately reflect the value of the service.

NPRR428, Energy Offer Curve Requirements for Generation Resources Assigned Non-Spin Responsibility - URGENT

Purpose (ERCOT)	This NPRR adds a requirement for the Energy Offer Curve to be at or above \$120 for On-Line Non-Spin capacity and at or above \$180 for Off-Line Non-Spin capacity.
TAC Decision	On 12/1/11, TAC voted to recommend approval of NPRR428 as amended by the 11/29/11 ERCOT comments and as revised by TAC. There were two abstentions from the Cooperative and Consumer Market Segments.
Effective Date/Priority	January 5, 2012
ERCOT Impact	No Impacts
Business Case Highlights	<ul style="list-style-type: none">• To address the Commission's discussion raised at its October 27, 2011 Open Meeting regarding Docket No. 37897.• This NPRR will mitigate price suppression during deployment of reserve services to more accurately reflect the value of the service.

PGRR009, New Planning Guide Section 6.8, Resource Registration Procedures

Purpose (PLWG)	This PGRR adds new Section 6.8 to the Planning Guide. Specifically, this PGRR establishes the basic processes to be used by Resource Entities to supply Resource information to ERCOT through the Resource registration process.
TAC Decision	On 10/6/11, TAC unanimously voted to recommend approval of PGRR009 as recommended by ROS in the 9/15/11 ROS Report and as amended by the 10/5/11 Luminant Energy comments.
Effective Date/Priority	January 1, 2012
ERCOT Impact	No Impacts
Business Case Highlights	<ul style="list-style-type: none">• There is currently no specific language in either the Nodal Protocols or Nodal Operating Guides related to the submission of Resource asset registered data and information. This PGRR adds the Resource planning data submittal process within the Planning Guide.• Clarifies process used to input and update Generation Resource data through the Resource registration process.

**Revision Requests Non-Unanimously Recommended
for Approval by TAC**

NPRR351, SCED Look-Ahead Step 1: Pricing: Calculate Non-Binding Prices and Basepoints for Initial Research into SCED Look-Ahead and allow Consumers to have a Forward Price Projection- URGENT

Purpose (WMS)	Using the inputs specified in this NPRR, ERCOT will calculate prices and base points over the next hour, using an hour-long optimization instead of a five-minute optimization. These calculated prices and base points will be non-binding.
TAC Decision	On 12/1/11, On 12/1/11, TAC voted to recommend approval of NPRR351 as recommended by PRS in the 11/29/11 PRS Report via roll call vote. There were two opposing votes from the IPM Market Segment and four abstentions from the IPM, Independent Generator, and IOU (2) Market Segments.
Effective Date/Priority	Upon System Implementation – Priority 2012; Rank 100
ERCOT Impact	\$650k - \$750k (PPL Funding), \$30k - \$40k per year (O&M Funding); impacts to MMS, EMS, MIS, CDR & ISM.
Business Case Highlights	<ul style="list-style-type: none"> • Posting of estimates of future LMPs facilitates consumers' ability to reduce their consumption in response to high market prices. Furthermore, projecting non-binding prices will assist REPs in designing and implementing effective demand response programs for residential and small business consumers using Direct Load Control, etc. • A Demand response of 500 MW when prices reach \$3,000 per MWh will result in a consumer savings of over \$6M for a four hour event. • Market response to Real-Time prices allows Generation Resource owners opportunities to better use their equipment. • Provides more information for MPs to make better decisions in Real-Time. • Reduction of Load during periods of high prices frees up additional natural gas Resources to supply other generation and natural gas consumers.

Notice of Revision Requests Rejected

NPRR315, Revision of Response Reserve Measure to High Emergency Limit.

This NPRR would have changed Responsive Reserve (RRS) Service 20% limit to check against High Emergency Limit (HEL) instead of High Sustained Limit (HSL).

- On December 1, 2011, TAC unanimously rejected NPRR315 as recommended by ROS.

PGRR011, Planning Criteria Clarifications and Enhancements To Narrow The Gap Between Operations and Planning.

This PGRR provides clarifications and additions to the transmission planning criteria to address the gap between operations and planning processes in order to develop adequate transmission capacity to minimize the likelihood of unmanageable constraints (i.e. Security-Constrained Economic Dispatch (SCED) irresolvable constraints) being encountered in Real-Time.

- On November 10, 2011, ROS voted to reject PGRR011. There was one abstention from the IOU Market Segment.
- On December 1, 2011, TAC received notice of the ROS rejection of PGRR011.

NPRR418, Reporting of Resource Forced Outages.

This NPRR would have required all Resource Forced Outages to be entered into the Outage Scheduler

- On December 1, 2011, TAC denied the ERCOT appeal of the 10/20/11 PRS rejection and referred the issues ERCOT raised to the WMS for further consideration.

Notice of Guide Revisions Approved by TAC

RMGRR101, Solution to Stacking.

This RMGRR incorporates the stacking logic as identified in the Solution to Stacking document into the RMG.

RMGRR102, Business Process Changes Related to SCR756, Enhancements to the MarkeTrak Application.

This RMGRR updates the business processes associated with implementation of SCR756.

RMGRR104, Synchronization with NPRR374, Modification of SCR Process and Urgency Requirements.

This RMGRR aligns the RMG with Nodal Protocol Revision Request (NPRR) 374 which modified the requirements for Urgency and was approved by the ERCOT Board on September 20, 2011.

NOGRR074, Clarified Responsible Entities for Reporting Sabotage Information to NERC.

This NOGRR adds Entities responsible for notifying the North American Electric Reliability Corporation (NERC) or other governmental agencies of a threat of sabotage.

NOGRR082, Synchronization with NPRR258 and Alignment of Primary Frequency Response Test Procedures - URGENT.

This NOGRR synchronizes the Nodal Operating Guides with NPRR258, Synchronization with PRR824 and PRR833 and Additional Clarifications, and revises the frequency response test procedure to be applicable to Intermittent Renewable Resources (IRRs).

TAC Annual Review of Protocol Defined Parameters

Item (1)(a)(iii) of Protocol Section 7.5.5.3, Auction Process, states:

- The additional credit requirement for all awarded PTP Obligations, which is \$A per MW per hour, plus the absolute value of the PTP Obligation bid price multiplied by M. The values of A and M Shall be posted on the MIS Public Area. TAC shall review these values at least annually and may recommend, to the ERCOT Board, changes to these values that become effective at least 30 days prior to a monthly CRR Auction and 60 days prior to an annual CRR Auction. Any changes to these values shall be posted on the MIS Public Area within three Business Days of ERCOT Board approval.

Protocol Section 16.11.4.5, Determination of the Counter-Party Future Credit Exposure, states:

- The parameters to determine ACPE (X and Y) shall be posted on the MIS Public Area. The Technical Advisory Committee (TAC) shall review these values at least annually and may recommend to the ERCOT Board changes to these values. If changes to these values are approved by the ERCOT Board, such revised values shall be posted on the MIS Public Area within three Business Days of ERCOT Board approval.

Current values

A = \$0.75 and M = 0

X = \$1.00 and Y = \$1.50

On 12/1/11, TAC unanimously voted to not recommend to the Board changes to the parameter values at this time.

Holistic Approach to Congestion Irresolvable by SCED

- On 5/17/11, the ERCOT Board revised the ERCOT Business Practice, Setting the Shadow Price Caps and Power Balance Penalties in Security Constrained Economic Dispatch (SCED), as a result ERCOT analysis after the number of hours in which the Valley import limit was exceeded resulting in the constraint reaching the Shadow Price cap of \$5000.
- The Board also directed TAC to report back with a recommendation for a holistic methodology for setting appropriate Shadow Price caps for constraints not resolvable by SCED and a recommendation for addressing gaps between operations and planning processes to be able to identify constraints not resolvable by SCED.
- A WMS TF developed a recommendation on a holistic approach that WMS ultimately recommended to TAC.
- On 8/4/11, TAC revised the WMS recommendation and with a vote of 24 in favor, 3 opposed (Cooperative (2) and IOU) and 2 abstentions (IOU and Industrial Consumer), recommended a revised methodology for setting the maximum Shadow Price caps for constraints not resolvable by SCED.
- On 9/1/11, TAC reviewed a revised ERCOT Business Practice, Setting the Shadow Price Caps and Power Balance Penalties in SCED, and voted to confirm the draft business practice as revised by TAC reflects the 8/4/11TAC decision on Congestion irresolvable by SCED; to recommend that for any constraint deemed irresolvable in calendar year 2011, the net margin calculation will begin with 1/1/11; and to recommend an effective date of 10/1/11 for the business practice document. The vote carried with 2 abstentions from the Cooperative Market Segment.

Holistic Approach to Congestion Irresolvable by SCED

- On 9/20/11, the ERCOT Board voted to remand the Holistic Solution to Congestion Irresolvable by SCED back to TAC. One of the stated purposes of the remand was to allow TAC to review and comment on the presentation STEC had made at the 9/1/11TAC meeting.
- On 9/22/11, comments were requested on the 9/1/11 STEC analysis. Additional comments were received from STEC, Luminant and Direct Energy.
- On 10/6/11, TAC voted to table the issue of a holistic approach to Congestion Irresolvable by SCED until a special TAC meeting on Tuesday 10/11/11. There were three abstentions from Consumer (1) and Cooperative (2) Market Segments.
- On 10/11/11, TAC voted to affirm the holistic approach to Congestion irresolvable by SCED initially approved at the 8/4/11TAC and to recommend Board approval of the business practice manual as revised by the 10/11/11 TAC with an effective date of November 1, 2011 passed via roll call vote with 23 in favor, five opposing votes from the Cooperative (2), IOU (2) and Consumer (1) Market Segments, and no abstentions.
- On 10/12/11, STEC appealed the 10/11/11TAC action specifically related to Section 3.6, Methodology for Setting Transmission Shadow Price Caps for Irresolvable Non-Competitive Constraints in SCED.

Addressing Gaps Between Operations and Planning to Be Able to Identify Constraints Not Resolvable By SCED

- As previously noted, the 5/17/11 Board directed TAC to report back with not only a recommendation for a holistic methodology for setting appropriate Shadow Price caps for constraints not resolvable by SCED, but also a recommendation for addressing gaps between operations and planning processes to be able to identify constraints not resolvable by SCED.
- TAC assigned the topic of addressing gaps between operations and planning processes to ROS.
- ROS conducted a special meeting to review with stakeholders and ERCOT the operational and planning processes. Following the in depth review session, ROS passed a recommendation which:
 - Noted planning is a forward-looking process, and that there will be differences between forecasted conditions and actual conditions.
 - Highlighted the fact that such differences occur is not due to gaps, but is due to uncertainty about future operating conditions inherent in the planning process.
 - Suggested the ERCOT planning criteria has been used to achieve a desirable balance between ensuring reliability without causing undue cost or landowner impacts that could result from the over-building of transmission.
 - Emphasized the importance of transmission planning processes and criteria continuing to evolve.
 - Did not recommend additional changes in ERCOT planning or operating criteria based upon a review of SCED irresolvable constraints at this time.
- ROS subsequently formed a task force to continue examination and follow action items.

Future Agenda Items

- Annual TAC and TAC Subcommittee Structural and Procedural Review
- NPRR413, Oklahoma Exemption Calculation Verification
- NPRR414, UFE Calculation Clarifications
- NPRR415, Inadvertent Interchange and Inadvertent Energy Clarification
- NPRR417, TDSP Submittal of Consumption and Demand Values for AMS ESI IDs
- SCR764, Public Access to Select MIS Dashboards