

Date: August 4, 2015
To: ERCOT Board of Directors
From: Adrienne Brandt, Technical Advisory Committee (TAC) Vice Chair
Subject: Unopposed Nodal Protocol Revision Requests (NPRRs) and Planning Guide Revision Requests (PGRRs) Recommended by TAC for Approval

Issue for the ERCOT Board of Directors

ERCOT Board of Directors Meeting Date: August 11, 2015

Item No.: 2.1

Issue:

Consideration of the following Revision Requests recommended for approval by TAC (with no opposing votes recorded):

- NPRR684, Annual RUC Impact Report Requirements
- NPRR692, Removal of MIS Posting Requirement of DAM Credit Parameters
- NPRR693, Incorporation of “Threshold Values for Competitive Constraint Test” into the Protocols
- NPRR694, Non-Spin Schedule Requirements
- NPRR695, Posting and Notice Requirements for Notifications of Suspension of Operations and Notifications of Change of Generation Resource Designation
- NPRR699, Energy Offer Curve Caps for Make-Whole Calculations for Resource Type Other
- NPRR700, Utilizing Actual Fuel Costs in Startup Offer
- NPRR701, As-Built Clarification of NPRR589, Ancillary Service Offers in the Supplemental Ancillary Services Market
- NPRR703, Clarification of Disclosure Requirements for GINR Study Information
- NPRR706, Restore the ability to use Physical Responsive Reserve Capability as an Indicator of Available Frequency-Responsive Capacity
- NPRR710, Removal of ORDC Phase 2 Language and Modification to HASL Calculation
- PGRR043, FIS Scoping Amendment
- PGRR044, MIS Classification of GINR Study Information

Background/History:

Unless otherwise noted: (i) all Market Segments were present for each vote and (ii) ERCOT Credit Staff and the Credit Work Group (Credit WG) have reviewed the revision request and do not believe it requires changes to credit monitoring activity or the calculation of liability.

- ***NPRR684, Annual RUC Impact Report Requirements [ERCOT]***
Revision Description: This NPRR clarifies the requirement for ERCOT to report to TAC every January on the market impacts of Reliability Unit Commitment (RUC).
Proposed Effective Date: September 1, 2015
ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no

impacts to ERCOT computer systems; ERCOT business processes will be updated; no impacts to ERCOT grid operations and practices.

ERCOT Opinion: ERCOT supports approval of NPRR684.

TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of NPRR684 as recommended by PRS in the 6/11/15 PRS Report.

- ***NPRR692, Removal of MIS Posting Requirement of DAM Credit Parameters [ERCOT]***
Revision Description: This NPRR removes the posting requirement for Day-Ahead Market (DAM) Credit Parameters to the Market Information System (MIS) Public Area.
Proposed Effective Date: Upon System Implementation.
ERCOT Impact Analysis: Less than \$5k (Operations & Maintenance (O&M)); no impacts to ERCOT staffing; impacts to MIS and ERCOT.com; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.
ERCOT Opinion: ERCOT supports approval of NPRR692.
TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of NPRR692 as recommended by PRS in the 6/11/15 PRS Report.
- ***NPRR693, Incorporation of “Threshold Values for Competitive Constraint Test” into the Protocols [ERCOT]***
Revision Description: This NPRR incorporates the Other Binding Document “Threshold Values for Competitive Constraint Test” into the Protocols.
Proposed Effective Date: Upon System Implementation.
ERCOT Impact Analysis: Less than \$5k (O&M); no impacts to ERCOT staffing; impacts to MIS and ERCOT.com; ERCOT business processes will be updated; no impacts to ERCOT grid operations and practices.
ERCOT Opinion: ERCOT supports approval of NPRR693.
TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of NPRR693 as recommended by PRS in the 6/11/15 PRS Report.
- ***NPRR694, Non-Spin Schedule Requirements [GDF Suez]***
Revision Description: This NPRR defines the Real-Time Inter-Control Center Communications Protocol (ICCP) scheduling requirements for Off-Line Non-Spinning Reserve (Non-Spin), On-Line Non-Spin, and On-Line Non-Spin using Off-Line power augmentation technology.
Proposed Effective Date: September 1, 2015
ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.
ERCOT Opinion: ERCOT supports approval of NPRR694 as it clarifies requirements for Resources carrying On-Line Non-Spin Ancillary Service.
TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of NPRR694 as recommended by PRS in the 6/11/15 PRS Report.

- ***NPRR695, Posting and Notice Requirements for Notifications of Suspension of Operations and Notifications of Change of Generation Resource Designation [ERCOT]***
Revision Description: This NPRR requires ERCOT to post all Notifications of Suspension of Operations (except those for units on Forced Outage) and all Notifications of Change of Generation Resource Designation to the MIS Secure Area and to issue a Market Notice within five Business Days of receipt; clarifies that retirements of Generation Resources are subject to the modeling timelines in Section 3.10.1, Time Line for Network Operations Model Changes; proposes revisions to address the Protected Information status of information concerning Mothballed Generation Resources; and clarifies the definitions of Decommissioned Generation Resource and Mothballed Generation Resource.
Proposed Effective Date: September 1, 2015
ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; ERCOT business processes will be updated; no impacts to ERCOT grid operations and practices.
ERCOT Opinion: ERCOT supports approval of NPRR695.
TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of NPRR695 as recommended by PRS in the 6/11/15 PRS Report.
- ***NPRR699, Energy Offer Curve Caps for Make-Whole Calculations for Resource Type Other [RCWG]***
Revision Description: This NPRR sets the Energy Offer Curve Caps for make-whole calculations for “Other” Resources to the System-Wide Offer Cap (SWCAP), and creates Energy Offer Curve Caps for make-whole calculations for wind Generation Resources and Photovoltaic Generation Resources (PVGRs) set at \$0.00/MWh.
Proposed Effective Date: Upon System Implementation.
ERCOT Impact Analysis: Less than \$5k (O&M); no impacts to ERCOT staffing; impacts to Settlements and Billing (S&B); ERCOT business processes will be updated; no impacts to ERCOT grid operations and practices.
ERCOT Opinion: ERCOT supports approval of NPRR699 as it is consistent with the desired benefit described in NPRR560, Caps and Floors for Energy Storage Resources, of incorporating energy storage resources into the ERCOT market by providing incentives in the form of appropriate Make-Whole Payment caps.
TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of NPRR699 as recommended by PRS in the 6/11/15 PRS Report.
- ***NPRR700, Utilizing Actual Fuel Costs in Startup Offer Caps [RCWG]***
Revision Description: This NPRR incorporates actual fuel costs into the DAM and RUC procurement process and DAM Make-Whole Payment calculation.
Proposed Effective Date: Upon System Implementation - Priority 2015; Rank 1340
ERCOT Impact Analysis: Between \$20k and \$30k; no impacts to ERCOT staffing; impacts to S&B and Commercial Systems Integration (CSI); no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.
ERCOT Opinion: ERCOT supports approval of NPRR700 as it better aligns DAM and RUC procurement decisions with actual Resource cost.

TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of NPRR700 as recommended by PRS in the 6/11/15 PRS Report.

- ***NPRR701, As-Built Clarification of NPRR589, Ancillary Service Offers in the Supplemental Ancillary Services Market [ERCOT]***

Revision Description: This NPRR adds additional billing determinants to clarify the Settlement calculations and to show distinction between the subscript (*m*), which denotes a Supplemental Ancillary Services Market (SASM) and subscript (*rs*) used to describe a Reconfiguration SASM (RSASM).

Proposed Effective Date: September 1, 2015

ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

ERCOT Opinion: ERCOT supports approval of NPRR701.

TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of NPRR701 as recommended by PRS in the 7/16/15 PRS Report.

- ***NPRR703, Clarification of Disclosure Requirements for GINR Study Information [ERCOT]***

Revision Description: This NPRR clarifies ERCOT's disclosure obligations concerning Full Interconnection Study (FIS) studies, allowing disclosure of all FIS studies except stability studies and sub-synchronous oscillation studies via the MIS Public Area.

Proposed Effective Date: Upon system implementation of Planning Guide Revision Request (PGRR) 044, MIS Classification of GINR Study Information.

ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

ERCOT Opinion: ERCOT supports approval of NPRR703.

TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of NPRR703 as recommended by PRS in the 7/16/15 PRS Report.

- ***NPRR706, Restore the ability to use Physical Responsive Reserve Capability as an Indicator of Available Frequency-Responsive Capacity [ERCOT]***

Revision Description: This NPRR revises the calculation of Physical Responsive Capability (PRC) to more accurately indicate the amount of capacity that is available to respond to a frequency disturbance, as discussed during the Energy Emergency Alert (EEA) Workshop.

Proposed Effective Date: Upon System Implementation - Priority 2015; Rank 1350

ERCOT Impact Analysis: Between \$20k and \$30k; no impacts to ERCOT staffing; impacts to Energy Management System (EMS); no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

ERCOT Opinion: ERCOT supports approval of NPRR706.

TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of NPRR706 as recommended by PRS in the 7/16/15 PRS Report.

- ***NPRR710, Removal of ORDC Phase 2 Language and Modification to HASL Calculation [ERCOT]***

Revision Description: This NPRR removes Operating Reserve Demand Curve (ORDC) Phase 2; changes the High Ancillary Service Limit (HASL) calculation to remove Non-Frequency Responsive Capacity (NFRC) included in a Generation Resource's High Sustained Limit (HSL), thereby creating the opportunity for an ORDC payment for the NFRC capacity through Ancillary Service imbalance Settlement; and clarifies the HASL definition between use in the Resource limit calculator, RUC optimization, and the capacity shortfall ratio share.

Proposed Effective Date: Upon System Implementation - Priority 2015; Rank 1360

ERCOT Impact Analysis: Between \$20k and \$30k; no impacts to ERCOT staffing; impacts to Energy Management System (EMS) and Enterprise Information Services (EIS); no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices. Approval of NPRR710 will allow for avoidance of ORDC Phase 2 project costs (\$75k - \$100k) and FTE costs (\$125k annually).

ERCOT Opinion: ERCOT supports approval of NPRR710.

TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of NPRR710 as recommended by PRS in the 7/16/15 PRS Report; and the accompanying Other Binding Document, Methodology for Implementing Operating Reserve Demand Curve (ORDC) to Calculate Real-Time Reserve Price Adder, as recommended by PRS consistent with the 7/8/15 ERCOT comments – Attachment 1.

- ***PGRR043, FIS Scoping Amendment [E.ON]***

Revision Description: This PGRR moves the Subsynchronous Resonance (SSR) Study out of the FIS and makes it a requirement for commercial operations.

Proposed Effective Date: September 1, 2015

ERCOT Impact Analysis: No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

ERCOT Opinion: ERCOT supports this PGRR as it clarifies the responsibilities regarding the conducting of SSR studies during the generation interconnection process.

TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of PGRR043 as recommended by ROS in the 7/9/15 ROS Report.

- ***PGRR044, MIS Classification of GINR Study Information [ERCOT]***

Revision Description: This PGRR proposes to change the MIS classification of certain studies undertaken as part of the Generation Interconnection of Change Request (GINR) process; clarifies that economic studies for transmission projects proposed as a result of a new GINR Project must be posted to the MIS Secure Area; adds the appropriate Market Participant category to the data set table where it indicates that certain information will be posted to the MIS Certified Area; and clarifies that the final stability study and any subsynchronous oscillation study should be submitted to ERCOT separately from the remainder of the FIS to facilitate posting on the appropriate areas of the MIS.

Proposed Effective Date: Upon System Implementation.

ERCOT Impact Analysis: Less than \$5k (O&M); no impacts to ERCOT staffing; impacts to MIS; no impacts to ERCOT business functions; no impacts to ERCOT grid operations and practices.

ERCOT Opinion: ERCOT supports approval of PGRR044.

TAC Decision: On 7/30/15, TAC unanimously voted to recommend approval of PGRR044 as recommended by ROS in the 7/9/15 ROS Report.

The TAC Reports and Impact Analyses for these Revision Requests are included in the ERCOT Board meeting materials which can found at the following link:

<http://www.ercot.com/calendar/2015/8/11/31884-BOARD>

In addition, these Revision Requests and supporting materials are posted on the ERCOT website at the following links:

<http://www.ercot.com/mktrules/nprotocols/npr>

<http://www.ercot.com/mktrules/issues/pgrr>

Key Factors Influencing Issue:

The PRS met, discussed the issues, and submitted reports to TAC regarding NPRRs 684, 692, 693, 694, 695, 699, 700, 701, 703, 706, and 710.

The ROS met, discussed the issues, and submitted reports to TAC regarding PGRRs 043 and 044.

TAC considered the issues and voted to take action on regarding NPRRs 684, 692, 693, 694, 695, 699, 700, 701, 703, 706, and 710; and PGRRs 043 and 044.

Conclusion/Recommendation:

As more specifically described above, TAC recommends that the ERCOT Board approve NPRRs 684, 692, 693, 694, 695, 699, 700, 701, 703, 706, and 710; and PGRRs 043 and 044.

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

WHEREAS, the Electric Reliability Council of Texas, Inc. (ERCOT) Board of Directors (Board) deems it desirable and in ERCOT's best interest to approve the following Nodal Protocol Revision Requests (NPRRs) and Planning Guide Revision Requests (PGRRs):

- NPRR684, Annual RUC Impact Report Requirements;
- NPRR692, Removal of MIS Posting Requirement of DAM Credit Parameters;
- NPRR693, Incorporation of "Threshold Values for Competitive Constraint Test" into the Protocols;
- NPRR694, Non-Spin Schedule Requirements;
- NPRR695, Posting and Notice Requirements for Notifications of Suspension of Operations and Notifications of Change of Generation Resource Designation;
- NPRR699, Energy Offer Curve Caps for Make-Whole Calculations for Resource Type Other;
- NPRR700, Utilizing Actual Fuel Costs in Startup Offer;
- NPRR701, As-Built Clarification of NPRR589, Ancillary Service Offers in the Supplemental Ancillary Services Market;
- NPRR703, Clarification of Disclosure Requirements for GINR Study Information;
- NPRR706, Restore the ability to use Physical Responsive Reserve Capability as an Indicator of Available Frequency-Responsive Capacity;
- NPRR710, Removal of ORDC Phase 2 Language and Modification to HASL Calculation;
- PGRR043, FIS Scoping Amendment; and
- PGRR044, MIS Classification of GINR Study Information

THEREFORE be it RESOLVED, that the ERCOT Board hereby approves NPRRs 684, 692, 693, 694, 695, 699, 700, 701, 703, 706, and 710; and PGRRs 043 and 044.

CORPORATE SECRETARY'S CERTIFICATE

I, Vickie G. Leady, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its August 11, 2015 meeting, the ERCOT Board passed a motion approving the above Resolution by _____.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of August 2015.

Vickie G. Leady
Assistant Corporate Secretary