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| **Date:** | August 4, 2020 |
| **To:** | Board of Directors |
| **From:** | Bob Helton, Technical Advisory Committee (TAC) Chair |
| **Subject:** | Unopposed Revision Requests Recommended by TAC for Approval |

## Issue for the ERCOT Board of Directors

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| **ERCOT Board of Directors Meeting Date:** August 11, 2020  **Item No.:** 2.1 |

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| **Issue:**Consideration of the following Revision Requests (Nodal Protocol Revision Requests (NPRRs), Nodal Operating Guide Revision Requests (NOGRRs), Other Binding Document Revision Requests (OBDRRs), Planning Guide Revision Requests (PGRRs), Resource Registration Glossary Revision Requests (RRGRRs), System Change Request (SCR) and Verifiable Cost Manual Revision Requests (VCMRRs)) recommended for approval by TAC (with no opposing votes recorded):  * NPRR903, Day-Ahead Market Timing Deviations; * NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer; * NPRR983, Delete Remaining Grey-Boxed Language Associated with NPRR257, Synchronization with Nodal Operating Guide Section 9, Monitoring Programs and Changes to Posting Requirements of Documents Considered CEII; * NPRR990, Relocation of Combined Cycle Train to Resource Attribute; * NPRR992, Updated Day-Ahead Liability for NPRR863, Creation of ERCOT Contingency Reserve Service and Revisions to Responsive Reserve; * NPRR993, Grey Box Resolution re NPRR902 and NPRR928; * NPRR996, Alignment of Hub Bus Names Between Protocols and ERCOT Model; * NPRR1000, Elimination of Dynamically Scheduled Resources; * NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions; * NPRR1003, Elimination of References to Resource Asset Registration Form; * NPRR1004, Load Distribution Factor Process Update; * NPRR1015, Clarification of DAM implementation of NPRR863 Phase 2 – URGENT; * NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs); * NPRR1020, Allow Some Integrated Energy Storage Designs to Calculate Internal Loads – URGENT; * NPRR1030, Modify Allocator for CRR Auction Revenue Distribution – URGENT; * NOGRR195, Generator Voltage Control Tolerance Band; * NOGRR196, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer; * NOGRR200, Delete Remaining Grey-Boxed Language Associated with NOGRR025, Monitoring Programs for QSEs, TSPs, and ERCOT; * NOGRR208, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions; * NOGRR209, Related to NPRR1003, Elimination of References to Resource Asset Registration Form; * NOGRR212, Related to NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs); * OBDRR018, Related to NPRR1003, Elimination of References to Resource Asset Registration Form – Procedure for Identifying Resource Nodes; * OBDRR019, Related to NPRR1003, Elimination of References to Resource Asset Registration Form – Requirements for Aggregate Load Resource Participation in the ERCOT Markets; * PGRR074, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer; * PGRR076, Improvements to Generation Resource Interconnection or Change Request (GINR) Process; * PGRR078, Market Data Transparency Update for Planning Postings; * PGRR079, Related to NPRR1003, Elimination of References to Resource Asset Registration Form; * PGRR080, Updated Responsibilities for Performing GMD Vulnerability Assessments; * RRGRR022, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer; * RRGRR023, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions; * RRGRR024, Related to NPRR1003, Elimination of References to Resource Asset Registration Form; * RRGRR026, Related to NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs); * SCR810, EMS System Change to Count DC Ties toward the 2% Constraint Activation Criterion; * VCMRR027, Related to NPRR986, BESTF-2 Energy Storage Resource Energy Offer Curves, Pricing, Dispatch, and Mitigation; and * VCMRR029, Related to NPRR1003, Elimination of References to Resource Asset Registration Form. |
| **Background/History:** **Unless otherwise noted: (i) all Market Segments were present for each vote; (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; and (iii) ERCOT supports the revision request**   * ***NPRR903, Day-Ahead Market Timing Deviations [ERCOT]***   **Revision Description:** This NPRR clarifies the deviations that may occur due to Day-Ahead Market (DAM) delays, and adds language requiring ERCOT to issue a Market Notice for any act or omission that it takes to ensure that the DAM process completes by 1900.  **Proposed Effective Date:** September 1, 2020  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; ERCOT business processes will be updated; **TAC Decision:** On 6/24/20, TAC unanimously voted via roll call to recommend approval of NPRR903 as recommended by PRS in the 2/13/20 PRS Report as amended by the 3/24/20 ERCOT comments.   * ***NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer [ERCOT]***   **Revision Description:** This NPRR adds definitions for Generator Step-Up (GSU) and Main Power Transformer (MPT) to the Nodal Protocols and clarifies their uses.  **Proposed Effective Date:** Upon system implementation of PR106, RARF Replacement project  **ERCOT Impact Analysis:** Less than $10k, which will be absorbed by the PR106 project; no impacts to ERCOT staffing; impacts to Resource Integration and Integration; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 6/24/20, TAC unanimously voted via roll call to recommend approval of NPRR973 as recommended by PRS in the 2/13/20 PRS Report.   * ***NPRR983, Delete Remaining Grey-Boxed Language Associated with NPRR257, Synchronization with Nodal Operating Guide Section 9, Monitoring Programs and Changes to Posting Requirements of Documents Considered CEII [ERCOT]***   **Revision Description:** This NPRR deletes all remaining grey-boxed language associated with NPRR257.  **Proposed Effective Date:** September 1, 2020  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 6/24/20, TAC unanimously voted via roll call to recommend approval of NPRR983 as recommended by PRS in the 6/11/20 PRS Report.   * ***NPRR990, Relocation of Combined Cycle Train to Resource Attribute [ERCOT]***   **Revision Description:** This NPRR deletes the remaining grey-box for NPRR889, RTF-1 Replace Non-Modeled Generator with Settlement Only Generator, and relocates the defined term “Combined Cycle Train” from underneath “Resource” to “Resource Attribute.”  **Proposed Effective Date:** September 1, 2020  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 6/24/20, TAC unanimously voted via roll call to recommend approval of NPRR990 as recommended by PRS in the 2/13/20 PRS Report.   * ***NPRR992, Updated Day-Ahead Liability for NPRR863, Creation of ERCOT Contingency Reserve Service and Revisions to Responsive Reserve [ERCOT]***   **Revision Description:** This NPRR ensures the Day-Ahead Liability (DAL) estimate correctly includes ERCOT Contingency Reserve Service (ECRS) charges and payments, which was the intent of NPRR863.  **Proposed Effective Date:** Upon system implementation of NPRR863  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices. (There are no additional impacts to this NPRR beyond what was captured in the Impact Analysis for NPRR863)  **TAC Decision:** On 6/24/20, TAC unanimously voted via roll call to recommend approval of NPRR992 as recommended by PRS in the 6/11/20 PRS Report.  **Credit WG:** See 2/21/20 Credit WG comments   * ***NPRR993, Grey Box Resolution re NPRR902 and NPRR928 [ERCOT]***   **Revision Description:** This NPRR addresses an anticipated redundancy and use of a defined term, both of which were irresolvable during the concurrent approval processes for NPRR902, ERCOT Critical Energy Infrastructure Information, and NPRR928, Cybersecurity Incident Notification.  **Proposed Effective Date:** September 1, 2020  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 6/24/20, TAC voted unanimously to recommend approval of NPRR993 as recommended by PRS in the 6/11/20 PRS Report   * ***NPRR996, Alignment of Hub Bus Names Between Protocols and ERCOT Model [ERCOT]***   **Revision Description:** This NPRR aligns the Hub Bus names within Protocols with the substation names within the ERCOT model.  **Proposed Effective Date:** September 1, 2020  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NPRR996 as recommended by PRS in the 7/16/20 PRS Report.   * ***NPRR1000, Elimination of Dynamically Scheduled Resources [DME]***   **Revision Description:** This NPRR removes the term Dynamically Scheduled Resource (DSR) from the Protocols.  **Proposed Effective Date:** Upon system implementation  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; impacts to Data and Information Products (DAIP), Market Management Systems (MMS), Energy Management System (EMS), CRM & Registration System (REG), Data Access & Transparency, Market Settlements (S&B), BI & Data Analytics, and Integration; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices. (ERCOT does not intend to make changes to current systems to remove the DSR logic. As ERCOT undertakes future system upgrades, ERCOT will not include the DSR logic. This NPRR is expected to be a net benefit to ERCOT since DSR logic will not need to be built into upcoming major system upgrade projects.)  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NPRR1000 as recommended by PRS in the 7/16/20 PRS Report.   * ***NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions [ERCOT]***   **Revision Description:** This NPRR, along with its related Revision Requests, establishes Energy Storage Resource (ESR) "single model" registration and charging restrictions in Emergency Conditions.  **Proposed Effective Date:** Upon system implementation – Priority 2020; Rank 3060  **ERCOT Impact Analysis:** Between $100k and $200k; no impacts to ERCOT staffing; impacts to Resource Integration and DAIP; ERCOT business processes will be updated; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NPRR1002 as recommended by PRS in the 7/16/20 PRS Report.   * ***NPRR1003, Elimination of References to Resource Asset Registration Form [ERCOT]***   **Revision Description:** This NPRR replaces all remaining references to the Resource Asset Registration Form (“RARF”) with more general language in anticipation of the elimination of the RARF.  **Proposed Effective Date:** September 1, 2020  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NPRR1003 as recommended by PRS in the 7/16/20 PRS Report.   * ***NPRR1004, Load Distribution Factor Process Update [ERCOT]***   **Revision Description:** This NPRR creates a new process for determining the Load distribution factors used in the Congestion Revenue Rights (CRR) Auctions and Day-Ahead Market (DAM) clearing.  **Proposed Effective Date:** Upon system implementation – Priority 2021; Rank 3210  **ERCOT Impact Analysis:** Between $45k and $65k; no impacts to ERCOT staffing; impacts to MMS, Integration, DAIP, and External Public; ERCOT business processes will be updated; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NPRR1004 as recommended by PRS in the 7/16/20 PRS Report.   * ***NPRR1015, Clarification of DAM implementation of NPRR863 Phase 2 – URGENT [ERCOT]***   **Revision Description:** This NPRR clarifies the submission and reporting changes necessary in the market system to complete NPRR863 implementation of changes to Responsive Reserve (RRS) and addition of ECRS. Primarily this is to address the RRS “sub-types” of Primary Frequency Response, Fast Frequency Response (FFR), and Load Resources controlled by high-set under-frequency relays; and the ECRS “sub-types” of Security-Constrained Economic Dispatch (SCED)-dispatchable and non-SCED-dispatchable with regard to Ancillary Service Offers, self-arrangement, and trades, as well as related reports.  **Proposed Effective Date:** Upon system implementation of NPRR863, Creation of ERCOT Contingency Reserve Service and Revisions to Responsive Reserve  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices. (There are no additional impacts to this NPRR beyond what was captured in the Impact Analysis for NPRR863.)  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NPRR1015 as recommended by PRS in the 7/16/20 PRS Report as amended by the 7/22/20 ERCOT comments.   * ***NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs) [ERCOT]***   **Revision Description:** This NPRR clarifies various important reliability requirements for DGRs that are seeking qualification to provide Ancillary Service(s) and/or participate in SCED.  **Proposed Effective Date:** Upon system implementation – Priority 2020; Rank 3070  **ERCOT Impact Analysis:** Between $400k and $550k; no impacts to ERCOT staffing; impacts to Outage Scheduler (OS), EMS, BI & Data Analytics, DAIP, MMS, CRM & Registration System (REG), Network Model Management System (NMMS), and Integration; ERCOT business processes will be updated; ERCOT grid operations and practices will be updated.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NPRR1016 as recommended by PRS in the 7/16/20 PRS Report.   * ***NPRR1020, Allow Some Integrated Energy Storage Designs to Calculate Internal Loads – URGENT [Tesla]***   **Revision Description:** This NPRR clarifies that emerging storage technologies can be interconnected and operated as a Resource and avail of Wholesale Storage Load (WSL) rules. Specifically, the NPRR proposes to allow ESRs with integrated Loads that cannot be metered as designed, to alternatively calculate these Loads using internal sensors. This process will require an annual attestation from the Resource Entity.  **Proposed Effective Date:** Upon system implementation – Priority – 2021; Rank – 3220; and upon implementation of necessary revisions to the Settlement Metering Operating Guide (SMOG)  **ERCOT Impact Analysis:** Between $175k and $225k; no impacts to ERCOT staffing; impacts to EPS Meter Data Management (EPS) and S&B; ERCOT business processes will be updated; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/29/20, TAC voted via roll call to recommended approval of NPRR1020 as recommended by PRS in the 7/16/20 PRS Report as amended by the 7/28/20 ERCOT comments as revised by TAC and the Impact Analysis with a priority of 2021 and rank of 3220; and a recommended effective date of upon system implementation and upon implementation of necessary revisions to the SMOG. There was one abstention from the Independent Power Marketer (IPM) (EDF Trading) Market Segment.   * ***NPRR1030, Modify Allocator for CRR Auction Revenue Distribution – URGENT [ERCOT]***   **Revision Description:** This NPRR proposes to change the CRR Auction Revenue Distribution (CARD) allocation methodology from a peak 15-minute Settlement Interval to Load Ratio Share (LRS) based on Adjusted Metered Load (AML) totals for the entirety of each month, with parallel changes also proposed for the CRR Balancing Account (CRRBA) and certain Block Load Transfers (BLTs) for consistency and to simplify implementation.  **Proposed Effective Date:** Upon system implementation – Priority 2020; Rank 2515  **ERCOT Impact Analysis:** Between $175k and $225k; no impacts to ERCOT staffing; impacts to S&B, DAIP, Credit Monitoring and Management (CMM), Integration; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NPRR1030 as recommended by PRS in the 7/16/20 PRS Report as amended by the 7/28/20 ERCOT comments as revised by TAC; and to forward NPRR1030 to the ERCOT Board.   * ***NOGRR195, Generator Voltage Control Tolerance Band [ERCOT]***   **Revision Description:** This NOGRR addresses ERCOT audit recommendations from Texas Reliability Entity, Inc. (Texas RE) and proposes to modify generator voltage control tolerance bands.  **Proposed Effective Date:** Upon system implementation – Priority – 2021; Rank – 300  **ERCOT Impact Analysis:** $30k - $50k; no impacts to ERCOT staffing; impact to EMS and BI & Data Analytics; no impacts to ERCOT business processes; ERCOT grid operations and practices will be updated.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NOGRR195 as recommended by ROS in the 7/9/20 ROS Report.   * ***NOGRR196, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer [ERCOT]***   **Revision Description:** This NOGRR clarifies language by use of NPRR973-proposed defined terms Generation Step-Up (GSU) and Main Power Transformer (MPT).  **Proposed Effective Date:** Upon system implementation of NPRR973  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices. (There are no additional impacts to this NOGRR beyond what was captured in the Impact Analysis for NPRR973.)  **TAC Decision:** On 6/24/20, TAC voted unanimously via roll call to recommend approval of NOGRR196 as recommended by ROS in the 2/6/20 ROS Report.   * ***NOGRR200, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer [ERCOT]***   **Revision Description:** This NOGRR deletes all remaining grey-boxed language associated with NOGRR025, Monitoring Programs for QSEs, TSPs, and ERCOT.  **Proposed Effective Date:** September 1, 2020  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing (manual reports would not be produced and posted and automated reports would not have to be supported); no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices. (This NOGRR strikes the remaining grey-boxes for NOGRR025, which results in an estimated implementation cost savings of $700k-$900k.)  **TAC Decision:** On 6/24/20, TAC voted unanimously via roll call to recommend approval of NOGRR200 as recommended by ROS in the 5/11/20 ROS Report as amended by the 6/22/20 ERCOT comments.   * ***NOGRR208, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions [ERCOT]***   **Revision Description:** This NOGRR aligns the Nodal Operating Guide with the Nodal Protocols as modified by NPRR1002, except Section 4.5.3.3, EEA Levels, which an Alignment NOGRR will be filed following approval of NPRR1002 to align with the Protocols.  **Proposed Effective Date:** Upon system implementation of NPRR1002  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices. (There are no additional impacts to this NOGRR beyond what was captured in the Impact Analysis for NPRR1002.)  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NOGRR208 as recommended by ROS in the 7/9/20 ROS Report.   * ***NOGRR209, Related to NPRR1003, Elimination of References to Resource Asset Registration Form [ERCOT]***   **Revision Description:** This NOGRR aligns the Nodal Operating Guide with changes proposed in NPRR1003, by replacing all remaining references to the Resource Asset Registration Form (“RARF”) with more general language in anticipation of the elimination of the RARF.  **Proposed Effective Date:** Upon system implementation of NPRR1003  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NOGRR209 as recommended by ROS in the 7/9/20 ROS Report.   * ***NOGRR212, Related to NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs) [ERCOT]***   **Revision Description:** This NOGRR aligns the Nodal Operating Guide with revisions within NPRR1016 and clarifies various reliability requirements for DGRs.  **Proposed Effective Date:** Upon system implementation of NPRR1016  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices. (There are no additional impacts to this NOGRR beyond what was captured in the Impact Analysis for NPRR1016.)  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of NOGRR212 as recommended by ROS in the 7/9/20 ROS Report.   * ***OBDRR018, Related to NPRR1003, Elimination of References to Resource Asset Registration Form – Procedure for Identifying Resource Nodes [ERCOT]***   **Revision Description:** This OBDRR aligns the Procedure for Identifying Resource Nodes with changes proposed in NPRR1003, by replacing all remaining references to the Resource Asset Registration Form (“RARF”) with more general language in anticipation of the elimination of the RARF.  **Proposed Effective Date:** Upon system implementation of NPRR1003  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/26/20, TAC unanimously voted via roll call to recommend approval of OBDRR018 as submitted.   * ***OBDRR019, Related to NPRR1003, Elimination of References to Resource Asset Registration Form – Requirements for Aggregate Load Resource Participation in the ERCOT Markets [ERCOT]***   **Revision Description:** This OBDRR aligns the Requirements for Aggregate Load Resource Participation in the ERCOT Markets with changes proposed in NPRR1003, by replacing all remaining references to the Resource Asset Registration Form (“RARF”) with more general language in anticipation of the elimination of the RARF. This OBDRR also updates this document’s change control process for consistency with similar Other Binding Documents.  **Proposed Effective Date:** Upon system implementation of NPRR1003  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/26/20, TAC unanimously voted via roll call to recommend approval of OBDRR019 as submitted.   * ***PGRR074, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer [ERCOT]***   **Revision Description:** This Planning Guide Revision Request (PGRR) clarifies language by use of NPRR973-proposed defined terms Generation Step-Up (GSU) and Main Power Transformer (MPT).  **Proposed Effective Date:** Upon system implementation of NPRR973  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices. (There are no additional impacts to this RRGRR beyond what was captured in the Impact Analyses for NPRR973.)  **TAC Decision:** On 6/24/20, TAC voted unanimously via roll call to recommend approval of PGRR074 as recommended by ROS in the 2/6/20 ROS Report.   * ***PGRR076, Improvements to Generation Resource Interconnection or Change Request (GINR) Process [ERCOT]***   **Revision Description:** This PGRR proposes a number of small changes to the Generation Resource Interconnection or Change Request (GINR) process as discussed at various Resource Integration Workshops. The changes include the value that must be increased to meet paragraph (1)(b)(i) of Section 5.1.1; specifying that the proposed Commercial Operations Date entered in the initial GINR application must be 15 months or greater than the date of the application; redefinition of the Security Screening Study output; creation of separate reports for the Full Interconnection Study (FIS); reactive study coordination; and clarification when the dynamic data model should be submitted to meet the quarterly stability assessment prerequisite deadlines.  **Proposed Effective Date:** Upon system implementation – Priority – 2021; Rank – 3200 (paragraph (3) of Section 5.2.1 and paragraph (4)(b)(vi) of Section 5.7.1); Upon ERCOT Board approval (all remaining language)  **ERCOT Impact Analysis:** $50k - $75k (annual recurring O&M cost $300k - $360k); there will be ongoing operational impacts in the Resource Integration department totaling 2.00 Full-Time Employees (FTEs); impacts to Resource Integration, Integration, and Data Access & Transparency; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of PGRR076 as recommended by ROS in the 7/9/20 ROS Report as amended by the 7/28/20 STEC comments with an effective date of upon system implementation with a recommended priority of 2021 and rank of 3200 for paragraph (3) of Section 5.2.1 and paragraph (4)(b)(vi) of Section 5.7.1, and upon ERCOT Board approval for all remaining language.   * ***PGRR078, Market Data Transparency Update for Planning Postings [ERCOT]***   **Revision Description:** This PGRR specifies that data related to the Regional Transmission Plan and Special Planning Studies that are considered Protected Information per Nodal Protocol Section 1.3.1.1, Items Considered Protected Information, may be posted to the Market Information System (MIS) Certified Area for Transmission Service Providers (TSPs). An update for Resource Asset Registration Form (“RARF”) Generator Data postings to MIS is also included.  **Proposed Effective Date:** Upon system implementation  **ERCOT Impact Analysis:** Less than $5k (O&M); no impacts to ERCOT staffing; impacts to Data Access & Transparency; no impacts to ERCOT business processes; ERCOT grid operations and practices will be updated.  **TAC Decision:** On 6/24/20, TAC voted unanimously via roll call to recommend approval of PGRR078 as recommended by ROS in the 6/4/20 ROS Report.   * ***PGRR079, Related to NPRR1003, Elimination of References to Resource Asset Registration Form [ERCOT]***   **Revision Description:** This PGRR aligns the Planning Guide with changes proposed in NPRR1003, by replacing all remaining references to the Resource Asset Registration Form (“RARF”) with more general language in anticipation of the elimination of the RARF.  **Proposed Effective Date:** Upon system implementation of NPRR1003  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of PGRR079 as recommended by ROS in the 7/9/20 ROS Report.   * ***PGRR080, Updated Responsibilities for Performing GMD Vulnerability Assessments [ERCOT]***   **Revision Description:** This PGRR aligns the Planning Guide with North American Electric Reliability Corporation (NERC) Reliability Standard TPL-007-4, Transmission System Planned Performance for Geomagnetic Disturbance Events, by identifying responsibilities for performing studies needed to complete benchmark and supplemental Geomagnetic Disturbance (GMD) vulnerability assessments.  **Proposed Effective Date:** September 1, 2020  **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.  **TAC Decision:** On 6/24/20, TAC unanimously voted via roll call to recommend approval of PGRR080 as recommended by ROS in the 6/4/20 ROS Report   * ***RRGRR022, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer [ERCOT]***   **Revision Description:** This RRGRR clarifies language by use of NPRR973-proposed defined terms Generation Step-Up (GSU) and Main Power Transformer (MPT).  **Proposed Effective Date:** Upon system implementation of NPRR973  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices. (There are no additional impacts to this RRGRR beyond what was captured in the Impact Analyses for NPRR973.)  **TAC Decision:** On 6/24/20, TAC voted unanimously via roll call to recommend approval of RRGRR022 as recommended by ROS in the 2/6/20 ROS Report.   * ***RRGRR023, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions [ERCOT]***   **Revision Description:** This RRGRR establishes provisions and requirements in the Resource Registration Guide for ESRs that are identical to those already in place for Generation Resources and Settlement Only Generators (SOGs).  **Proposed Effective Date:** Upon system implementation of NPRR1002, NPRR1026, BESTF-7 Self-Limiting Facilities and Self-Limiting Resources, and NPRR1029, BESTF-6 DC-Coupled Resources  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices. (There are no additional impacts to this RRGRR beyond what was captured in the Impact Analyses for NPRR1002, NPRR1026, and NPRR1029.)  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of RRGRR023 as recommended by ROS in the 7/9/20 ROS Report.   * ***RRGRR024, Related to NPRR1003, Elimination of References to Resource Asset Registration Form [ERCOT]***   **Revision Description:** This RRGRR aligns the Resource Registration Glossary with changes proposed in NPRR1003, by replacing all remaining references to the Resource Asset Registration Form (“RARF”) with more general language in anticipation of the elimination of the RARF.  **Proposed Effective Date:** Upon system implementation of NPRR1003  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of RRGRR024 as recommended by ROS in the 7/9/20 ROS Report.   * ***RRGRR026, Related to NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs) [ERCOT]***   **Revision Description:** This RRGRR adds a new data point to support implementation of an interim solution for representing DGRs and DESRs in the ERCOT Network Operations Model.  **Proposed Effective Date:** September 1, 2020  **ERCOT Impact Analysis:** Less than $10k (O&M); 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.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of RRGRR026 as recommended by ROS in the 7/9/20 ROS Report.   * ***SCR810, EMS System Change to Count DC Ties toward the 2% Constraint Activation Criterion [REMC]***   **Revision Description:** This SCR adds logic to ERCOT’s EMS system to remove the flag that indicates to the ERCOT Operator that a unit representing a Direct Current Tie (DC Tie) does not count toward the 2% criterion for activating transmission constraints.  **Proposed Effective Date:** Upon system implementation – Priority 2020; Rank 3050  **ERCOT Impact Analysis:** Between $15k and $25k; no impacts to ERCOT staffing; impacts to EMS; ERCOT business processes will be updated; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 6/24/20, TAC voted unanimously voted via roll call to recommend approval of SCR810 as recommended by PRS in the 6/11/20 PRS Report.   * ***VCMRR027, Related to NPRR986, BESTF-2 Energy Storage Resource Energy Offer Curves, Pricing, Dispatch, and Mitigation [ERCOT]***   **Revision Description:** This VCMRR removes Section 2.2 and Appendix 10 from the Verifiable Cost Manual.  **Proposed Effective Date:** Upon system implementation of NPRR986  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices. (There are no additional impacts to this RRGRR beyond what was captured in the Impact Analyses for NPRR986.)  **TAC Decision:** On 6/24/20, TAC unanimously voted via roll call to recommend approval of VCMRR027 as recommended by WMS in the 2/5/20 WMS Report.   * ***VCMRR029, Related to NPRR1003, Elimination of References to Resource Asset Registration Form [ERCOT]***   **Revision Description:** This VCMRR aligns the Verifiable Cost Manual with changes proposed in NPRR1003, by replacing all remaining references to the Resource Asset Registration Form (“RARF”) with more general language in anticipation of the elimination of the RARF.  **Proposed Effective Date:** Upon system implementation of NPRR1003  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 7/29/20, TAC unanimously voted via roll call to recommend approval of VCMRR029 as recommended by WMS in the 6/3/20 WMS Report.  The TAC Reports and Impact Analyses for these Revision Requests are included in the [ERCOT Board meeting materials](http://www.ercot.com/calendar/2020/8/11/181577-BOARD).  In addition, these Revision Requests ([NPRRs](http://www.ercot.com/mktrules/issues/nprr), [NOGRRs](http://www.ercot.com/mktrules/issues/nogrr), [OBDRRs](http://www.ercot.com/mktrules/issues/obdrr), [PGRRs](http://www.ercot.com/mktrules/issues/pgrr), [RRGRRs](http://www.ercot.com/mktrules/issues/rrgrr), [SCR](http://www.ercot.com/mktrules/issues/SCR810) and [VCMRR](http://www.ercot.com/mktrules/issues/vcmrr)s, and supporting materials are posted on the ERCOT website. |
| **Key Factors Influencing Issue:** The PRS met, via Webex, discussed the issues, and submitted reports to TAC regarding NPRRs 903, 973, 983, 990, 992, 993, 996, 1000, 1002, 1003, 1004, 1015, 1016, 1020 and 1030; and SCR810.  The ROS met, via Webex, discussed the issues, and submitted reports to TAC regarding NOGRRs 195, 196, 200, 208, 209 and 212; PGRRs 074, 076, 078, 079 and 080; and RRGRRs 022, 023, 024 and 026.  The WMS met, via Webex, discussed the issues, and submitted a report to TAC regarding VCMRRs 027 and 029.  The TAC met, via Webex, discussed the issues, and recommended approval of OBDRRs 018 and 019. |
| **Conclusion/Recommendation:** As more specifically described above, TAC recommends that the ERCOT Board approve NPRRs 903, 973, 983, 990, 992, 993, 996, 1000, 1002, 1003, 1004, 1015, 1016, 1020 and 1030; NOGRRs 195, 196, 200, 208, 209 and 212; OBDRRs 018 and 019; PGRRs 074, 076, 078, 079 and 080; and RRGRRs 022, 023, 024 and 026; SCR810; and VCMRRs 027 and 029. |

**ELECTRIC RELIABILITY COUNCIL OF TEXAS, INC.**

**BOARD OF DIRECTORS RESOLUTION**

WHEREAS, after due consideration of the alternatives, the Board of Directors (Board) of Electric Reliability Council of Texas, Inc. (ERCOT) deems it desirable and in the best interest of ERCOT to approve the following Nodal Protocol Revision Requests (NPRRs), Nodal Operating Guide Revision Requests (NOGRRs), Other Binding Document Revision Requests (OBDRRs), Planning Guide Revision Requests (PGRRs), Resource Registration Glossary Revision Requests (RRGRRs), System Change Request (SCR) and Verifiable Cost Manual Revision Requests (VCMRRs) recommended for approval by TAC:

* NPRR903, Day-Ahead Market Timing Deviations;
* NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer;
* NPRR983, Delete Remaining Grey-Boxed Language Associated with NPRR257, Synchronization with Nodal Operating Guide Section 9, Monitoring Programs and Changes to Posting Requirements of Documents Considered CEII;
* NPRR990, Relocation of Combined Cycle Train to Resource Attribute;
* NPRR992, Updated Day-Ahead Liability for NPRR863, Creation of ERCOT Contingency Reserve Service and Revisions to Responsive Reserve;
* NPRR993, Grey Box Resolution re NPRR902 and NPRR928;
* NPRR996, Alignment of Hub Bus Names Between Protocols and ERCOT Model;
* NPRR1000, Elimination of Dynamically Scheduled Resources;
* NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions ;
* NPRR1003, Elimination of References to Resource Asset Registration Form;
* NPRR1004, Load Distribution Factor Process Update;
* NPRR1015, Clarification of DAM implementation of NPRR863 Phase 2 – URGENT;
* NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs);
* NPRR1020, Allow Some Integrated Energy Storage Designs to Calculate Internal Loads – URGENT;
* NPRR1030, Modify Allocator for CRR Auction Revenue Distribution – URGENT;
* NOGRR195, Generator Voltage Control Tolerance Band;
* NOGRR196, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer;
* NOGRR200, Delete Remaining Grey-Boxed Language Associated with NOGRR025, Monitoring Programs for QSEs, TSPs, and ERCOT;
* NOGRR208, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions;
* NOGRR209, Related to NPRR1003, Elimination of References to Resource Asset Registration Form;
* NOGRR212, Related to NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs);
* OBDRR018, Related to NPRR1003, Elimination of References to Resource Asset Registration Form – Procedure for Identifying Resource Nodes;
* OBDRR019, Related to NPRR1003, Elimination of References to Resource Asset Registration Form – Requirements for Aggregate Load Resource Participation in the ERCOT Markets;
* PGRR074, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer;
* PGRR076, Improvements to GINR Process;
* PGRR078, Market Data Transparency Update for Planning Postings;
* PGRR079, Related to NPRR1003, Elimination of References to Resource Asset Registration Form;
* PGRR080, Updated Responsibilities for Performing GMD Vulnerability Assessments;
* RRGRR022, Related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer;
* RRGRR023, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions;
* RRGRR024, Related to NPRR1003, Elimination of References to Resource Asset Registration Form;
* RRGRR026, Related to NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs);
* SCR810, EMS System Change to Count DC Ties toward the 2% Constraint Activation Criterion;
* VCMRR027, Related to NPRR986, BESTF-2 Energy Storage Resource Energy Offer Curves, Pricing, Dispatch, and Mitigation; and
* VCMRR029, Related to NPRR1003, Elimination of References to Resource Asset Registration Form.

THEREFORE, BE IT RESOLVED, that the ERCOT Board hereby approves NPRRs 903, 973, 983, 990, 992, 993, 996, 1000, 1002, 1003, 1004, 1015, 1016, 1020 and 1030; NOGRRs 195, 196, 200, 208, 209 and 212; OBDRRs 018 and 019; PGRRs 076, 078, 079 and 080; RRGRRs 022, 023, 024 and 026; SCR810; and VCMRRs 027 and 029.

**CORPORATE SECRETARY’S CERTIFICATE**

I, Vickie G. Leady, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its August 11, 2020 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 2020.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Vickie G. Leady

Assistant Corporate Secretary