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| **Date:** | December 1, 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:** December 8, 2020  **Item No.:** 2.1 |

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| **Issue:**Consideration of the following Revision Requests (Nodal Protocol Revision Requests (NPRRs), Commercial Operations Guide Revision Request (COPMGRR), Nodal Operating Guide Revision Requests (NOGRRs), Other Binding Document Revision Request (OBDRR), Planning Guide Revision Requests (PGRRs), Resource Registration Glossary Revision Request (RRGRR), System Change Request (SCR), and Verifiable Cost Manual Revision Request (VCMRR)) recommended for approval by TAC (with no opposing votes recorded):  * NPRR1001, Clarification of Definitions of Operating Condition Notice, Advisory, Watch, Emergency Notice, and Related Clarifications; * NPRR1007, RTC – NP 3: Management Activities for the ERCOT System – URGENT; * NPRR1008, RTC – NP 4: Day-Ahead Operations – URGENT; * NPRR1009, RTC – NP 5: Transmission Security Analysis and Reliability Unit Commitment – URGENT; * NPRR1010, RTC – NP 6: Adjustment Period and Real-Time Operations – URGENT; * NPRR1011, RTC – NP 8: Performance Monitoring – URGENT; * NPRR1012, RTC – NP 9: Settlement and Billing – URGENT; * NPRR1013, RTC – NP 1, 2, 16, and 25: Overview, Definitions and Acronyms, Registration and Qualification of Market Participants, and Market Suspension and Restart – URGENT; * NPRR1014, BESTF-4 Energy Storage Resource Single Model – URGENT; * NPRR1026, BESTF-7 Self-Limiting Facilities; * NPRR1028, RUC Process Alignment with Resource Limitations Not Modeled in the RUC Software; * NPRR1029, BESTF-6 DC-Coupled Resources – URGENT; * NPRR1031, Notices for Curtailment of Load; * NPRR1032, Consideration of Physical Limits of DC Ties in RUC Optimization and Settlements; * NPRR1039, Replace the Term MIS Public Area with ERCOT Website; * NPRR1041, Adjust Expiration of Protected Information Status for Wholesale Storage Load (WSL) Data; * NPRR1042, Planned Capacity Adjustment in the Report on Capacity, Demand and Reserves in the ERCOT Region; * NPRR1043, Clarification of NPRR986 Language Related to Wholesale Storage Load; * NPRR1046, Additional Revisions to Remove Dynamically Scheduled Resource (DSR) from the Protocols; * NPRR1047, Consolidate Greybox re NPRR973 and NPRR1016; * COPMGRR048, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website; * NOGRR207, Related to NPRR1001, Clarification of Definitions of Operating Condition Notice, Advisory, Watch, Emergency Notice, and Related Clarifications; * NOGRR211, RTC Nodal Operating Guides 2 and 9 – System Operations and Control Requirements and Monitoring Programs – URGENT; * NOGRR217, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website; * OBDRR020, RTC – Methodology for Setting Maximum Shadow Prices for Network and Power Balance Constraints – URGENT; * PGRR081, Related to NPRR1026, BESTF-7 Self-Limiting Facilities; * PGRR082, Revise Section 5 and Establish Small Generation Interconnection Process; * PGRR083, Add RPG Project Number and TPIT Revisions; * PGRR084, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website; * RRGRR023, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions; * SCR812, Create Intermittent Renewable Generation Integration Report; and * VCMRR030, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website. |
| **Background/History:** **Unless otherwise noted: (i) all Market Segments were present for each vote; (ii) For NPRRs, ERCOT Credit Staff and the Credit Work Group (Credit WG) have reviewed the NPRR and do not believe it requires changes to credit monitoring activity or the calculation of liability; and (iii) ERCOT supports the revision request**   * ***NPRR1001, Clarification of Definitions of Operating Condition Notice, Advisory, Watch, Emergency Notice, and Related Clarifications [ERCOT]***   **Revision Description:** This NPRR clarifies that an Emergency Notice is the type of communication that will be issued when ERCOT is operating in an Emergency Condition, that the issuance of an Operating Condition Notice (OCN), Advisory, or Watch does not mean that ERCOT is operating in an Emergency Condition, and it makes a few minor associated clarifications.  **Proposed Effective Date:** January 1, 2021  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; ERCOT grid operations and practices will be updated.  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1001 as recommended by PRS in the 11/11/20 PRS Report.   * ***NPRR1007, RTC – NP 3: Management Activities for the ERCOT System – URGENT [ERCOT]***   **Revision Description:** This NPRR updates the management activities for the ERCOT System in the Protocols to address changes associated with the implementation of Real-Time Co-Optimization (RTC).  **Proposed Effective Date:** Upon system implementation of the RTC Project – Priority 2020; Rank 235  **ERCOT Impact Analysis:** Between $50M and $55M; ERCOT staffing impacts (3.4 FTEs total) to Market Credit (0.1 FTE), Energy and Market Management System (EMMS) Development (0.25 FTE), EMMS Production Support (1.6 FTE), Quality Assurance & Testing (0.2 FTE), IT Integration Support Services (0.5 FTE), Enterprise Information Services (0.25 FTE), Business Intelligence & Analytics (0.25 FTE), and Commercial Application Services (0.25 FTE); impacts to Market Management Systems (MMS), Energy Management System (EMS), Integration, Data and Information Products (DAIP), Settlements & Billing (S&B), Network Model Management System (NMMS), Credit Monitoring and Management (CMM), Operator Training Simulator (OTS), CRM & Registration System (REG), Data Access & Transparency, BI & Data Analytics, Data Management, and External Public; ERCOT business processes will be updated; ERCOT grid operations and practices will be updated. (This Impact Analysis covers all RTC Revision Requests)  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1007 as recommended by PRS in the 11/11/20 PRS Report.  **Credit WG:** See 11/17/20 Credit WG Comments   * ***NPRR1008, RTC – NP 4: Day-Ahead Operations – URGENT [ERCOT]***   **Revision Description:** This NPRR updates Day-Ahead operations in the Protocols to address changes associated with the implementation of RTC.  **Proposed Effective Date:** Upon system implementation of the RTC Project  **ERCOT Impact Analysis:** See Impact Analysis for NPRR1007  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1008 as recommended by PRS in the 11/11/20 PRS Report.  **Credit WG:** See 11/17/20 Credit WG Comments to NPRR1007   * ***NPRR1009, RTC – NP 5: Transmission Security Analysis and Reliability Unit Commitment – URGENT [ERCOT]***   **Revision Description:** This NPRR updates transmission security analysis and Reliability Unit Commitment (RUC) to address changes associated with the implementation of RTC.  **Proposed Effective Date:** Upon system implementation of the RTC Project  **ERCOT Impact Analysis:** See Impact Analysis for NPRR1007  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1009 as recommended by PRS in the 11/11/20 PRS Report.  **Credit WG:** See 11/17/20 Credit WG Comments to NPRR1007   * ***NPRR1010, RTC – NP 6: Adjustment Period and Real-Time Operations – URGENT [ERCOT]***   **Revision Description:** This NPRR updates the Adjustment Period and Real-Time operations in the Protocols to address changes associated with the implementation of RTC.  **Proposed Effective Date:** Upon system implementation of the RTC Project  **ERCOT Impact Analysis:** See Impact Analysis for NPRR1007  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1010 as recommended by PRS in the 11/11/20 PRS Report.  **Credit WG:** See 11/17/20 Credit WG Comments to NPRR1007   * ***NPRR1011, RTC – NP 8: Performance Monitoring – URGENT [ERCOT]***   **Revision Description:** This NPRR updates performance monitoring in the Protocols to address changes associated with the implementation of RTC.  **Proposed Effective Date:** Upon system implementation of the RTC Project  **ERCOT Impact Analysis:** See Impact Analysis for NPRR1007  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1011 as recommended by PRS in the 11/11/20 PRS Report.  **Credit WG:** See 11/17/20 Credit WG Comments to NPRR1007   * ***NPRR1012, RTC – NP 9: Settlement and Billing – URGENT [ERCOT]***   **Revision Description:** This NPRR updates Settlement and billing in the Protocols to address changes associated with the implementation of RTC.  **Proposed Effective Date:** Upon system implementation of the RTC Project  **ERCOT Impact Analysis:** See Impact Analysis for NPRR1007  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1012 as recommended by PRS in the 11/11/20 PRS Report.  **Credit WG:** See 11/17/20 Credit WG Comments to NPRR1007   * ***NPRR1013, RTC – NP 1, 2, 16, and 25: Overview, Definitions and Acronyms, Registration and Qualification of Market Participants, and Market Suspension and Restart – URGENT [ERCOT]***   **Revision Description:** This NPRR updates the Protected Information provisions, definitions and acronyms, registration and qualification of Market Participants, and Market Suspension and Restart in the Protocols to address changes associated with the implementation of RTC.  **Proposed Effective Date:** Upon system implementation of the RTC Project  **ERCOT Impact Analysis:** See Impact Analysis for NPRR1007  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1013 as recommended by PRS in the 11/11/20 PRS Report.  **Credit WG:** See 11/17/20 Credit WG Comments to NPRR1007   * ***NPRR1014, BESTF-4 Energy Storage Resource Single Model – URGENT [ERCOT]***   **Revision Description:** This NPRR enables the integration of Energy Storage Resources (ESRs) into the ERCOT core systems as a single-model Resource, replacing the existing “combination model” paradigm in which ESRs are treated as two Resources: a Generation Resource and a Controllable Load Resource. This NPRR will be developed concurrently and implemented simultaneously with the NPRRs associated with RTC and with the upgrade to the ERCOT EMS.  **Proposed Effective Date:** Upon system implementation – Priority 2020; Rank 3015  **ERCOT Impact Analysis:** Between $3.5M and $4.5M; no impacts to ERCOT staffing; impacts to EMS, MMS, DAIP, S&B, Outage Scheduler (OS), Integration, BI & Data Analytics, NMMS, Resource Integration, Data Access & Transparency, External Public, and REG; ERCOT business processes will be updated; ERCOT grid operations and practices will be updated.  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1014 as recommended by PRS in the 11/11/20 PRS Report as amended by the 11/17/20 ERCOT comments.   * ***NPRR1026, BESTF-7 Self-Limiting Facilities [ERCOT]***   **Revision Description:** This NPRR establishes rules for and enables the integration of Self-Limiting Facilities into the ERCOT markets and core systems, as described in Key Topic and Concept #13 which achieved consensus support at the Battery Energy Storage Task Force (BESTF) and was approved by the TAC by email vote which concluded on April 3, 2020.  **Proposed Effective Date:** Upon system implementation – Priority 2020; Rank 3010  **ERCOT Impact Analysis:** Between $200k and $250k; no impacts to ERCOT staffing; impacts Resource Integration, EMS, OTS, DAIP, BI & Data Analytics, External Public, and Data Access & Transparency; ERCOT business processes will be updated; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1026 as recommended by PRS in the 11/11/20 PRS Report.   * ***NPRR1028, RUC Process Alignment with Resource Limitations Not Modeled in the RUC Software [Reliant]***   **Revision Description:** This NPRR establishes a requirement for Qualified Scheduling Entities (QSEs) to notify ERCOT of physical limitations on their Resources’ ability to start that are not able to be modeled in the RUC software and excuses compliance with portions of RUC Dispatch Instructions that violate physical limitations of Resources if the QSE has previously notified ERCOT of the limitation. The NPRR also establishes a requirement that ERCOT extend a RUC commitment in order to honor the minimum run-time limitation of a Resource when a physical limitation delays the Resource’s ability to reach its Low Sustained Limit (LSL).  **Proposed Effective Date:** January 1, 2021  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; ERCOT grid operations and practices will be updated.  **TAC Decision:** On 10/28/20, TAC unanimously voted via roll call to recommend approval of NPRR1028 as recommended by PRS in the 10/15/20 PRS Report**.**   * ***NPRR1029, BESTF-6 DC-Coupled Resources – URGENT [ERCOT]***   **Revision Description:** This NPRR enables the integration of DC-Coupled Resources into ERCOT’s core systems. DC-Coupled Resources are defined as a type of ESR and will be required to follow all rules associated with ESRs in addition to meeting the additional requirements in this NPRR. The language in this NPRR applies to both the current combo model era, in which ESRs are treated in ERCOT systems as two Resources—a Generation Resource and a Controllable Load Resource—as well as the future single model era described in NPRR1014.  **Proposed Effective Date:** Upon system implementation – Priority 2020; Rank 3015  **ERCOT Impact Analysis:** Between $800k and $1.2M; no impacts to ERCOT staffing; impacts to EMS, OS, S&B, MMS, BI & Data Analytics, Integration, Resource Integration, DAIP, OTS, NMMS, and REG; ERCOT business processes will be updated; ERCOT grid operations and practices will be updated.  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1029 as recommended by PRS in the 11/11/20 PRS Report.   * ***NPRR1031, Notices for Curtailment of Load [DC Energy]***   **Revision Description:** This NPRR requires ERCOT to post operations messages to inform Market Participants when Load curtailments are undertaken as a result of a transmission problem.  **Proposed Effective Date:** Upon project implementation  **ERCOT Impact Analysis:** Less than $5k (O&M); no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; ERCOT grid operations and practices will be updated.  **TAC Decision:** On 10/28/20, TAC unanimously voted via roll call to recommend approval of NPRR1031 as recommended by PRS in the 10/15/20 PRS Report as revised by TAC.   * ***NPRR1032, Consideration of Physical Limits of DC Ties in RUC Optimization and Settlements [ERCOT]***   **Revision Description:** This NPRR limits the Direct Current Tie (DC Tie) Schedules used in RUC optimization and RUC Settlements to the physical rating of the DC Tie.  **Proposed Effective Date:** Upon system implementation – Priority 2021; Rank 3260  **ERCOT Impact Analysis:** Between $100k and $150k; no impacts to ERCOT staffing; impacts to MMS, S&B, DAIP, and Integration; ERCOT business processes will be updated; ERCOT grid operations and practices will be updated.  **TAC Decision:** On 10/28/20, TAC unanimously voted via roll call to recommend approval of NPRR1032 as recommended by PRS in the 10/15/20 PRS Report.   * ***NPRR1039, Replace the Term MIS Public Area with ERCOT Website [ERCOT]***   **Revision Description:** This NPRR removes the defined term Market Information System (MIS) Public Area from the Protocols and replaces any references to MIS Public Area with “ERCOT website.”  **Proposed Effective Date:** January 1, 2021  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; impacts to Data Access & Transparency; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1039 as recommended by PRS in the 11/11/20 PRS Report as amended by the 11/13/20 ERCOT comments with a recommended effective date of January 1, 2021.   * ***NPRR1041, Adjust Expiration of Protected Information Status for Wholesale Storage Load (WSL) Data [ERCOT]***   **Revision Description:** This NPRR adjusts the expiration of the Protected Information status for Wholesale Storage Load (WSL) data from 180 days to 60 days to align with the requirement to disclose real power consumption and metered generation output 60 days after each Operating Day.  **Proposed Effective Date:** January 1, 2021  **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 10/28/20, TAC unanimously voted via roll call to recommend approval of NPRR1041 as recommended by PRS in the 10/15/20 PRS Report.   * ***NPRR1042, Planned Capacity Adjustment in the Report on Capacity, Demand and Reserves in the ERCOT Region [Reliant]***   **Revision Description:** This NPRR adjusts the planned capacity in the Report on Capacity, Demand and Reserves in the ERCOT Region to remove previously mothballed or retired Generation Resources that may be repowered but do not have an owner that intends to operate them.  **Proposed Effective Date:** January 1, 2021  **ERCOT Impact Analysis:** Less than $5k (O&M); no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; ERCOT grid operations and practices will be updated.  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1042 as recommended by PRS in the 11/11/20 PRS Report.   * ***NPRR1043, Clarification of NPRR986 Language Related to Wholesale Storage Load [ERCOT]***   **Revision Description:** This NPRR provides necessary clarification regarding Settlement of ESRs as developed in NPRR986, which received ERCOT Board approval on February 11, 2020, and is currently in the early phase of development. Specifically, this NPRR clarifies that the charging Load (excluding auxiliary Load) withdrawn by an ESR shall be settled based on the nodal price, similar to its injections, even if the ESR does not seek or cannot qualify for Wholesale Storage Load (WSL) treatment. It does so by replacing the term “ESR Load that is not WSL,” which appears in several places in the original NPRR986 language, replacing that term with a defined term, “Non-WSL ESR Charging Load.” The Non-WSL ESR Charging Load will be priced at nodal but, unlike ESRs receiving WSL treatment, will be subject to applicable Load Ratio Share (LRS)-based charges.  **Proposed Effective Date:** Upon system implementation of NPRR986, BESTF-2 Energy Storage Resource Energy Offer Curves, Pricing, Dispatch, and Mitigation  **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 NPRR986.)  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1043 as recommended by PRS in the 11/11/20 PRS Report as amended by the 11/17/20 ERCOT comments.   * ***NPRR1046, Additional Revisions to Remove Dynamically Scheduled Resource (DSR) from the Protocols [ERCOT]***   **Revision Description:** This NPRR removes additional uses of the term “Dynamically Scheduled Resource (DSR)” in alignment with the intent of NPRR1000, Elimination of Dynamically Scheduled Resources, which was approved by the ERCOT Board on August 11, 2020.  **Proposed Effective Date:** Upon system implementation of NPRR1000  **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 NPRR1000.)  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1046 as recommended by PRS in the 11/11/20 PRS Report.   * ***NPRR1047, Consolidate Greybox re NPRR973 and NPRR1016 [ERCOT]***   **Revision Description:** This NPRR consolidates some greybox language related to NPRR973, Add Definitions for Generator Step-Up and Main Power Transformer, and NPRR1016, Clarify Requirements for Distribution Generation Resources (DGRs) and Distribution Energy Storage Resources (DESRs).  **Proposed Effective Date:** January 1, 2021  **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 11/18/20, TAC unanimously voted via roll call to recommend approval of NPRR1047 as recommended by PRS in the 11/11/20 PRS Report.   * ***COPMGRR048, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website [ERCOT]***   **Revision Description:** This COPMGRR removes the defined term “Market Information System (MIS) Public Area” from the Commercial Operations Market Guide and replaces any references to MIS Public Area with “ERCOT website” and removes references to the ERCOT Market Information List (EMIL).  **Proposed Effective Date:** Upon implementation of NPRR1039  **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 COPMGRR beyond what was captured in the Impact Analysis for NPRR1039.)  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of COPMGRR048 as recommended by WMS in the 10/7/20 WMS Report as amended by the 11/13/20 ERCOT comments.   * ***NOGRR207, Related to NPRR1001, Clarification of Definitions of Operating Condition Notice, Advisory, Watch, Emergency Notice, and Related Clarifications [ERCOT]***   **Revision Description:** This NOGRR clarifies that the issuance of an OCN, Advisory, or Watch does not mean that ERCOT is operating in an Emergency Condition, and it makes a few minor associated clarifications.  **Proposed Effective Date:** Upon implementation of NPRR1001  **ERCOT Impact Analysis:** No budgetary impact; no impacts to ERCOT staffing; no impacts to ERCOT computer systems; no impacts to ERCOT business processes; ERCOT grid operations and practices will be updated.  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NOGRR207 as recommended by ROS in the 10/8/20 ROS Report.   * ***NOGRR211, RTC Nodal Operating Guides 2 and 9 – System Operations and Control Requirements and Monitoring Programs – URGENT [ERCOT]***   **Revision Description:** This NOGRR updates language related to Supplemental Ancillary Service Markets (SASMs), Ancillary Service deployment, and Ancillary Service responsibilities and obligations to address changes associated with the implementation of RTC of energy and Ancillary Services.  **Proposed Effective Date:** Upon system implementation of the RTC Project  **ERCOT Impact Analysis:** See Impact Analysis for NPRR1007  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NOGRR211 as recommended by ROS in the 11/5/20 ROS Report.   * ***NOGRR217, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website [ERCOT]***   **Revision Description:** This Nodal Operating Guide Revision Request (NOGRR) removes the defined term “Market Information System (MIS) Public Area” from the Nodal Operating Guide and replaces any references to MIS Public Area with “ERCOT website.”  **Proposed Effective Date:** Upon implementation of NPRR1039  **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 NPRR1039.)  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of NOGRR217 as recommended by ROS in the 10/8/20 ROS Report as amended by the 11/13/20 ERCOT comments.   * ***OBDRR020, RTC – Methodology for Setting Maximum Shadow Prices for Network and Power Balance Constraints - URGENT [ERCOT]***   **Revision Description:** This OBDRR updates the Methodology for Setting Maximum Shadow Prices for Network and Power Balance Constraints to address changes associated with the implementation of RTC of energy and Ancillary Services.  **Proposed Effective Date:** Upon system implementation of the RTC Project  **ERCOT Impact Analysis:** See Impact Analysis for NPRR1007  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to grant Urgent status to OBDRR020; and to recommend approval of OBDRR020 as amended by the 10/23/20 ERCOT comments.   * ***PGRR081, Related to NPRR1026, BESTF-7 Self-Limiting Facilities [ERCOT]***   **Revision Description:** This PGRR describes how Self-Limiting Facilities will be evaluated in the Generation Resource Interconnection or Change Request (GINR) process.  **Proposed Effective Date:** Upon implementation of NPRR1026  **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 PGRR beyond what was captured in the Impact Analysis for NPRR1026.)  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of PGRR081 as recommended by ROS in the 11/5/20 ROS Report.   * ***PGRR082, Revise Section 5 and Establish Small Generation Interconnection Process [ERCOT]***   **Revision Description:** This PGRR creates a new interconnection process for generators and generator modifications that are less than ten MW in size. This process will enable ERCOT to track these generators through the interconnection process and to perform any appropriate studies, if necessary, before these projects would be included in the ERCOT Network Operations Model. As is the case under the current interconnection process, generators ten MW or larger will be subject to a more rigorous interconnection process, including a screening study, Full Interconnection Study (FIS), Quarterly Stability Analysis, and other requirements. This PGRR also extends the generator interconnection process to apply to distribution-connected Generation Resources and Settlement Only Generators (SOG), and clarifies the roles of ERCOT and Transmission and/or Distribution Service Providers (TDSPs) in interconnecting these generators. This PGRR also reorganizes Section 5, eliminates duplicative language, and provides further clarifications of existing requirements. This PGRR reflects input from stakeholders gathered through a series of workshops.  **Proposed Effective Date:** Upon system implementation - Priority 2020; Rank 3070  **ERCOT Impact Analysis:** Between $700k and $900k (annual recurring O&M $450k - $540k); ERCOT staffing impacts to Resource Integration (2.9 FTE); impacts to Resource Integration, NMMS, BI & Data Analytics, and DAIP; ERCOT will update its business processes; no impacts to ERCOT grid operations and practices (If approved, ERCOT plans to implement the Resource Integration system changes as part of a future phase of PR106-01, RARF Replacement.)  **TAC Decision:** On 11/18/20, TAC voted via roll call to recommend approval of PGRR082 as recommended by ROS in the 11/5/20 ROS Report as amended by the 11/17/20 ERCOT comments. There were two abstentions from the Consumer (CMC Steel Texas, Air Liquide) Market Segment.   * ***PGRR083, Add RPG Project Number and TPIT Revisions [ERCOT]***   **Revision Description:** This PGRR adds a requirement for ERCOT to assign a Regional Planning Group (RPG) project number for projects submitted for RPG review. It also removes the specification of some Transmission Service Provider (TSP) provided Transmission Project Information Tracking (TPIT) information from the Planning Guide. The ROS-approved ERCOT Steady State Working Group Procedure Manual will be updated to contain the complete specification for TSP-provided TPIT information. This PGRR also addresses a discrepancy related to the RPG comment period in paragraph (1) of Section 3.1.4.2, Use of Regional Transmission Plan.  **Proposed Effective Date:** January 1, 2021  **ERCOT Impact Analysis:** Less than $5k (O&M); no impacts to ERCOT staffing; no impacts to ERCOT computer systems; ERCOT will update its business processes; no impacts to ERCOT grid operations and practices. (If approved, ERCOT will update the EMIL traceability.)  **TAC Decision:** On 10/28/20, TAC unanimously voted to recommend approval of PGRR083 as recommended by ROS in the 10/8/20 ROS Report as amended by the 10/20/20 ERCOT comments.   * ***PGRR084, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website [ERCOT]***   **Revision Description:** This PGRR removes the defined term “Market Information System (MIS) Public Area” from the Planning Guide and replaces any references to MIS Public Area with “ERCOT website.”  **Proposed Effective Date:** Upon implementation of NPRR1039  **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 PGRR beyond what was captured in the Impact Analysis for NPRR1039.)  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of PGRR084 as recommended by ROS in the 10/8/20 ROS Report as amended by the 11/13/20 ERCOT comments.   * ***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 Glossary for ESRs that are identical to those already in place for Generation Resources and SOGs.  **Proposed Effective Date:** Upon system implementation of NPRR1002, NPRR1026 and NPRR1029  **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; if approved, ERCOT plans to implement the Resource Integration system changes as part of a future phase of PR106-01, RARF Replacement)  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of RRGRR023 as recommended by TAC in the 8/26/20 TAC Report.   * ***SCR812, Create Intermittent Renewable Generation Integration Report [ERCOT]***   **Revision Description:** This SCR creates the new Intermittent Renewable Generation Integration Report, similar to the current integration reports for wind power and solar power production.  **Proposed Effective Date:** Upon system implementation – Priority 2021; Rank 3250  **ERCOT Impact Analysis:** Between $30k and $60k; no impacts to ERCOT staffing; impacts to DAIP, BI & Data Analytics, External Public, and Data Access & Transparency; no impacts to ERCOT business processes; no impacts to ERCOT grid operations and practices.  **TAC Decision:** On 10/28/20, TAC unanimously voted via roll call to recommend approval of SCR812 as recommended by PRS in the 10/15/20 PRS Report.   * ***VCMRR030, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website [ERCOT]***   **Revision Description:** This VCMRR removes the defined term “Market Information System (MIS) Public Area” from the Verifiable Cost Manual and replaces any references to MIS Public Area with “ERCOT website.”  **Proposed Effective Date:** Upon implementation of NPRR1039  **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 VCMRR beyond what was captured in the Impact Analysis for NPRR1039.)  **TAC Decision:** On 11/18/20, TAC unanimously voted via roll call to recommend approval of VCMRR030 as recommended by WMS in the 10/7/20 WMS Report as amended by the 11/13/20 ERCOT comments.  The TAC Reports and Impact Analyses for these Revision Requests are included in the [ERCOT Board meeting materials](http://www.ercot.com/calendar/2020/12/8/181585-BOARD).  In addition, these Revision Requests ([NPRRs](http://www.ercot.com/mktrules/issues/nprr), [COPMGRR](http://www.ercot.com/mktrules/issues/copmgrr), [NOGRRs](http://www.ercot.com/mktrules/issues/nogrr), [OBDRR](http://www.ercot.com/mktrules/issues/obdrr), [PGRRs](http://www.ercot.com/mktrules/issues/pgrr), [RRGRR](http://www.ercot.com/mktrules/issues/rrgrr), [SCR](http://www.ercot.com/mktrules/issues/scr), and [VCMRR](http://www.ercot.com/mktrules/issues/vcmrr)) 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 1001, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1026, 1028, 1029, 1031, 1032, 1039, 1041, 1042, 1043, 1046 and 1047; and SCR812.  The ROS met, via Webex, discussed the issues, and submitted reports to TAC regarding NOGRRs 207, 211 and 217; PGRRs 081, 082, 083 and 084; and RRGRR023.  The WMS met, via Webex, discussed the issues, and submitted reports to TAC regarding COPMGRR048 and VCMRR030.  The TAC discussed the issues and recommended approval of OBDRR020. |
| **Conclusion/Recommendation:** As more specifically described above, TAC recommends that the ERCOT Board approve NPRRs 1001, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1026, 1028, 1029, 1031, 1032, 1039, 1041, 1042, 1043, 1046 and 1047; COPMGRR048; NOGRRs 207, 211 and 217; OBDRR020; PGRRs 081, 082, 083 and 084; RRGRR023; SCR812; and VCMRR030. |

**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), Commercial Operations Guide Revision Request (COPMGRR), Nodal Operating Guide Revision Requests (NOGRRs), Other Binding Document Revision Request (OBDRR), Planning Guide Revision Requests (PGRRs), Resource Registration Glossary Revision Request (RRGRR), System Change Request (SCR), and Verifiable Cost Manual Revision Request (VCMRR) recommended for approval by TAC:

* NPRR1001, Clarification of Definitions of Operating Condition Notice, Advisory, Watch, Emergency Notice, and Related Clarifications
* NPRR1007, RTC – NP 3: Management Activities for the ERCOT System – URGENT
* NPRR1008, RTC – NP 4: Day-Ahead Operations – URGENT
* NPRR1009, RTC – NP 5: Transmission Security Analysis and Reliability Unit Commitment – URGENT
* NPRR1010, RTC – NP 6: Adjustment Period and Real-Time Operations – URGENT
* NPRR1011, RTC – NP 8: Performance Monitoring – URGENT
* NPRR1012, RTC – NP 9: Settlement and Billing – URGENT
* NPRR1013, RTC – NP 1, 2, 16, and 25: Overview, Definitions and Acronyms, Registration and Qualification of Market Participants, and Market Suspension and Restart – URGENT
* NPRR1014, BESTF-4 Energy Storage Resource Single Model – URGENT
* NPRR1026, BESTF-7 Self-Limiting Facilities
* NPRR1028, RUC Process Alignment with Resource Limitations Not Modeled in the RUC Software
* NPRR1029, BESTF-6 DC-Coupled Resources – URGENT
* NPRR1031, Notices for Curtailment of Load
* NPRR1032, Consideration of Physical Limits of DC Ties in RUC Optimization and Settlements
* NPRR1039, Replace the Term MIS Public Area with ERCOT Website
* NPRR1041, Adjust Expiration of Protected Information Status for Wholesale Storage Load (WSL) Data
* NPRR1042, Planned Capacity Adjustment in the Report on Capacity, Demand and Reserves in the ERCOT Region
* NPRR1043, Clarification of NPRR986 Language Related to Wholesale Storage Load
* NPRR1046, Additional Revisions to Remove Dynamically Scheduled Resource (DSR) from the Protocols
* NPRR1047, Consolidate Greybox re NPRR973 and NPRR1016
* COPMGRR048, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website
* NOGRR207, Related to NPRR1001, Clarification of Definitions of Operating Condition Notice, Advisory, Watch, Emergency Notice, and Related Clarifications
* NOGRR211, RTC Nodal Operating Guides 2 and 9 – System Operations and Control Requirements and Monitoring Programs – URGENT
* NOGRR217, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website
* OBDRR020, RTC – Methodology for Setting Maximum Shadow Prices for Network and Power Balance Constraints – URGENT
* PGRR081, Related to NPRR1026, BESTF-7 Self-Limiting Facilities
* PGRR082, Revise Section 5 and Establish Small Generation Interconnection Process
* PGRR083, Add RPG Project Number and TPIT Revisions
* PGRR084, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website
* RRGRR023, Related to NPRR1002, BESTF-5 Energy Storage Resource Single Model Registration and Charging Restrictions in Emergency Conditions
* SCR812, Create Intermittent Renewable Generation Integration Report
* VCMRR030, Related to NPRR1039, Replace the Term MIS Public Area with ERCOT Website

THEREFORE, BE IT RESOLVED, that the ERCOT Board hereby approves NPRRs 1001, 1007, 1008, 1009, 1010, 1011, 1012, 1013, 1014, 1026, 1028, 1029, 1031, 1032, 1039, 1041, 1042, 1043, 1046 and 1047; COPMGRR048; NOGRRs 207, 211 and 217; OBDRR020; PGRRs 081, 082, 083 and 084; RRGRR023; SCR812; and VCMRR030.

**CORPORATE SECRETARY’S CERTIFICATE**

I, Vickie G. Leady, Assistant Corporate Secretary of ERCOT, do hereby certify that, at its December 8, 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 December 2020.

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

Vickie G. Leady

Assistant Corporate Secretary