Item 17: TAC Report

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2022 Technical Advisory Committee (TAC) Chair

Board of Directors Meeting

ERCOT Public
March 7-8, 2022

Summary of TAC Update

Revision Requests Recommended for Approval by TAC – Unopposed:

- NPRR1095, Texas SET V5.0 Changes
- NPRR1097, Create Resource Forced Outage Report – URGENT
- NPRR1098, Direct Current Tie (DC Tie) Reactive Power Capability Requirements
- NPRR1099, Managing Network Operations Model Resource Nodes
- NPRR1102, ERCOT Discretion for Adjusting Non-Interval Data Recorder (NIDR) Backcasted Load Profiles
- NPRR1111, Related to SCR819, Improving IRR Control to Manage GTC Stability Limits – URGENT
- NPRR1113, Clarification of Regulation-Up Schedule for Controllable Load Resources in Ancillary Service Imbalance – URGENT
- NPRR1114, Securitization – PURA Subchapter N Uplift Charges – URGENT
- NOGRR234, Related to NPRR1098, Direct Current Tie (DC Tie) Reactive Power Capability Requirements
- OBDRR034, Related to NPRR1099, Managing Network Operations Model Resource Nodes
- OBDRR037, Power Balance Penalty and Shadow Price Cap Updates to Align with PUCT Approved High System-Wide Offer Cap
- OBDRR038, Minimum Contingency Level Updates to Align with PUCT Order
- PGRR099, Revise GIM Process to Ensure Compliance with the Lone Star Infrastructure Protection Act
- RMGRR169, Related to NPRR1095, Texas SET V5.0 Changes
- SCR816, CRR Auction Bid Credit Enhancement
- SCR817, Related to NPRR1095, MarkeTrak Validation Revisions Aligning with Texas SET V5.0
- SCR819, Improving IRR Control to Manage GTC Stability Limits – URGENT

Summary of TAC Update

Revision Requests Recommended for Approval by TAC – Non-Unanimous

- NPRR1120, Create Firm Fuel Supply Service – URGENT
- OBDRR039, ORDC Changes Related to NPRR1120, Create Firm Fuel Supply Service
- PGRR095, Establish Minimum Deliverability Criteria

January/February TAC Highlights

- Emergency Conditions Issues List Review
- Confirmation of 2022 Subcommittee Leadership
- Protocol HCAP Parameter Update to Align with PUCT Substantive Rule Changes
- 2022 TAC Goals and Strategic Initiatives

Guide Revisions Recommended for Approval by TAC (*Approved by PUCT)*

- RMGRR166, Revising Timing for Switch Hold Extract Availability
- NOGRR235, Combining Grey-boxes and Other Corrections
- VCMRR032, Calculation of Average Running Hours per Start when Determining the Variable O&M for QSGRs

Revision Requests with Opposing Votes (Vote)

NPRR1120, Create Firm Fuel Supply Service – URGENT

Purpose (ERCOT)	This NPRR creates a new reliability service, Firm Fuel Supply Service (FFSS). FFSS is provided to maintain system reliability in the event of a natural gas curtailment or other fuel supply disruption. Requirements that apply to each Generation Resource providing FFSS include meeting the technical requirements specified in the new Section 8.1.1.2.1.7, Firm Fuel Supply Service Resource Qualification, Testing, and Decertification, and being prepared and able to come On-Line during a natural gas curtailment or other fuel supply disruption. A QSE representing a Firm Fuel Supply Service Resource (FFSSR) when instructed by ERCOT must restore its FFSS capability following the deployment of FFSS within the restocking period defined in the RFP.
TAC Vote	On 2/23/22, TAC voted via roll call to recommend approval of NPRR1120 as recommended by PRS in the 2/16/22 PRS Report as amended by the 2/22/22 LCRA comments; and the Impact Analysis. There was one opposing vote from the Independent Retail Electric Provider (IREP) (Demand Control 2) Market Segment.
ERCOT Market Impact Statement	ERCOT Staff has reviewed NPRR1120 and believes the market impact for NPRR1120 implements the needed system changes to implement FFSS as quickly as possible so that FFSS is available for upcoming winter, as directed by the Public Utility Commission of Texas (PUCT).
Effective Date/Priority	Upon system implementation – Priority 2022; Rank 330
ERCOT Impact	Between $250k - $400k; impacts to Credit, Settlements & Billing Systems, Market Operation Systems, Data Management & Analytic Systems, CRM & Registration Systems, Integration Systems, Channel Management Systems; ERCOT business practices will be updated
Business Case Highlights	This NPRR introduces a new reliability product, FFSS, intended to assist in the maintenance of system reliability in the event of a natural gas curtailment or other fuel supply disruption. In the interest of timely implementation by Winter 2022-23, this NPRR defines the FFSS and creates a Settlement framework that allows ERCOT to build Settlement systems to meet the Winter 2022-23 timeline. ERCOT intends to provide more details in the RFP and may also subsequently file one or more additional NPRRs to memorialize the pertinent details in the Protocols as ERCOT receives further guidance from the PUCT.

OBDRR039, ORDC Changes Related to NPRR1120, Create Firm Fuel Supply Service

Purpose (ERCOT)	This OBDRR removes the High Sustained Limits (HSL) of Resources deployed for FFSS from the Operating Reserve Demand Curve (ORDC) reserve calculation, as proposed in the 2/7/22 IMM comments on NPRR1120. The IMM's proposal was discussed at the NPRR1120 workshop held on February 9, 2022.
TAC Vote	On 2/23/22, TAC voted via roll call to recommend approval of OBDRR039 as submitted; and the Impact Analysis. There were three opposing votes from the Cooperative (2) (STEC, GSEC) and IREP (Demand Control 2) Market Segments.
ERCOT Market Impact Statement	ERCOT Staff has reviewed OBDRR039 and believes the market impact for OBDRR039 improves the accuracy of scarcity pricing and properly incentivizes operation of other On-Line Resources during FFSS deployment.
Effective Date/Priority	Upon implementation of NPRR1120
ERCOT Impact	There are no additional impacts to this NOGRR beyond what was captured in the Impact Analysis for NPRR1120.
Business Case Highlights	This OBDRR aligns the ORDC reserves with revisions from NPRR1120 in order to adjust for the impacts of FFSS deployment. This adjustment is appropriate because it would result in more accurate scarcity pricing, incentivizing the operation of other On-Line Resources during an FFSS deployment.

PGRR095, Establish Minimum Deliverability Criteria Infrastructure Protection Act

Purpose (ERCOT)	This PGRR establishes minimum deliverability criteria for Resources that are located within the ERCOT System and whose output is primarily within ERCOT's control, through Dispatch Instructions, over the entire real power capability range of each Resource.
TAC Vote	On 2/23/22, TAC voted via roll call to recommend approval of PGRR095 as recommended by ROS in the 2/7/22 ROS Report; and for the minimum deliverability criteria, a minimum percentage of capacity of 100% to serve expected coincident peak Load. There were two opposing votes from the Independent Generator (Calpine) and IREP (Demand Control 2) Market Segments; and four abstentions from the Consumer (2) (Residential Consumer, OPUC) and Independent Power Marketer (IPM) (2) (DC Energy, Shell Energy) Market Segments.
ERCOT Market Impact Statement	ERCOT Staff has reviewed PGRR095 and believes the market impact for PGRR095 facilitates the identification of transmission needs to maintain reliability under system conditions with the potential for Resource shortages (e.g., peak Load conditions).
Effective Date/Priority	Upon system implementation
ERCOT Impact	Less than $5k; impacts to Channel Management Systems, ERCOT Website and Market Information System (MIS) Systems; ERCOT business processes will be updated
Business Case Highlights	This PGRR is intended to ensure that Resources that are located within the ERCOT System and whose output is primarily within ERCOT's control, through Dispatch Instructions, over the entire real power capability range of each Resource are not "bottled" from a reliability perspective. Establishing minimum deliverability criteria for such Resources will facilitate the identification of transmission needs to maintain reliability under system conditions with the potential for resource shortages (e.g., peak Load conditions). The purpose of minimum deliverability criteria is not to guarantee that any given Resource will be dispatched under any given system condition, but rather to ensure that Resources to which the criteria apply are simultaneously deliverable to serve Demand when needed. As such, this PGRR is not intended to make or imply any changes to Real-Time operations or the use of market tools to dispatch Resources.

January/February TAC Highlights

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Emergency Conditions Issues List Review. TAC and its subcommittees have concluded review of items related to the Emergency Conditions List. All items have been completed, addressed by Revision Requests, or assigned to subcommittees/working groups for continued discussion.

Confirmation of 2022 TAC Subcommittee Leadership.
At its 1/31/22 meeting, TAC confirmed the following subcommittee leadership for 2022.

- **Protocol Revision Subcommittee (PRS)**
  - Chair: Martha Henson, Oncor Electric Delivery
  - Vice Chair: Melissa Trevino, Occidental Chemical
- **Retail Market Subcommittee (RMS)**
  - Chair: John Schatz, Luminant Generation
  - Vice Chair: Debbie McKeever, Oncor Electric Delivery
- **Reliability and Operations Subcommittee (ROS)**
  - Chair: Chase Smith, Southern Power Co.
  - Vice Chair: Katie Rich, Golden Spread Electric Cooperative
- **Wholesale Market Subcommittee (WMS)**
  - Chair: Resmi Surendran, Shell Energy
  - Vice Chair: Ivan Velasquez, Oncor Electric Delivery

January/February TAC Highlights

Protocol HCAP Parameter Update to Align with PUCT Substantive Rule Changes. On 1/31/22, TAC unanimously voted via roll call to recommend approval of the change to the HCAP Parameter in Protocol Section 4.4.11 from $9,000/MWh to $5,000/MWh.

TAC Goals and Strategic Initiatives. On 2/23/22, TAC unanimously voted via roll call to approve the 2022 TAC Goals and Strategic Initiatives.

January/February TAC Highlights

2022 TAC Goals

1. Align TAC and Subcommittee Goals with the ERCOT Board of Director's strategic vision to work with ERCOT Staff to achieve the Board's vision for ERCOT.
2. Develop and implement market design changes and other reliability enhancements that are promulgated by the PUCT in the furtherance of statutory changes originating from the 87th session of the Texas Legislature.
3. Maintain rules that support ERCOT system reliability, promote market solutions, support open access to the ERCOT markets and transmission network, and are consistent with PURA, PUCT Substantive Rules, and NERC Reliability Standards.
4. Pursue clarifications to market rules and guides, which enhance the transparency of resource registration and requirements and clarify the entry process for new resources, with the explicit understanding that no changes will be made that discriminately affects the rights and obligations of resources currently participating in the wholesale and ancillary services markets.
5. Improve the monitoring of resource adequacy by ensuring that studies and reports provide a representative view of evolving risks to resource adequacy as a fundamental element of system reliability and resiliency. Recommend market improvements to support resource adequacy, including the recognition of limitations due to GTCs and the reactive needs of the system.
6. Collaborate with ERCOT Staff on current trends in fuel prices and installed resource costs through market changes.
7. Develop and implement needed market design corrections and improvements, which are cost effective.
8. Pursue policies and market rules that encourage the appropriate implementation of load participation.
9. Pursue policies and market rules that encourage the appropriate integration of emerging technologies.
10. Implement Retail Market improvements and requirements.
11. Facilitate market improvements necessary to leverage the capabilities of Advanced Metering Systems (AMS) in the retail market and improve the integrity and availability of AMS data to Market Participants.

January/February TAC Highlights

2022 TAC Goals (continued)

12. Improve settlement processes to facilitate changes in the ERCOT market design.
13. Collaborate with ERCOT Staff on the review of ancillary service needs and implement changes as necessary.
14. Work with ERCOT Staff to develop Protocols and market improvements that support increased data transparency and data availability to the market.
15. Work with ERCOT Staff to ensure appropriate credit and collateral rules exist or are created to facilitate market participation. Review available means to eliminate or substantially mitigate default uplift.
16. Develop analysis and implement reporting on the measures of the costs and benefits of changes in reliability requirements and actions, to include but not be limited to RUC impacts, changes in Ancillary Service quantities, and actions during emergency conditions.
17. Review integration and optimization of limited-duration Resources in the energy and Ancillary Service markets.

2022 TAC Strategic Initiatives

- Market reform implementation – WMS
- Load participation in price formation – WMS/RMS
- Switchable Generation – WMS
- Distributed Energy Resources – RMS/ROS/WMS
- Energy Storage Resources – ROS/WMS
- DC Tie considerations – ROS/WMS
- Review of Planning Processes – ROS
- Process for integrating or transitioning large Load into ERCOT – RMS/ROS/WMS
- Improve utilization of the stakeholder process – PRS
- Good Cause Exception Rules – RMS/ROS/WMS

Notice of Guide Revisions Recommended for Approval by TAC *(Approved by PUCT – Effective March 1, 2022)*

RMGRR166, Revising Timing for Switch Hold Extract Availability. This Retail Market Guide Revision Request (RMGRR) revises the timing for Retail Electric Providers (REPs) to access the daily switch hold files that are posted by the Transmission and/or Distribution Service Providers (TDSPs) per subsection (l)(1) of P.U.C. SUBST. R. 25.480, Bill Payment and Adjustments, and subsection (g) of P.U.C. SUBST. R. 25.126, Adjustments Due to Non-Compliant Meters and Meter Tampering in Areas Where Customer Choice Has Been Introduced.

NOGRR235, Combining Grey-boxes and Other Corrections. This Nodal Operating Guide Revision Request (NOGRR) is submitted for transparency purposes to make small corrections to blackline and greybox language associated with NOGRR210, Related to NPRR1005, Clarify Definition of Point of Interconnection (POI) and Add Definition Point of Interconnection Bus (POIB), and NOGRR227, Add Phasor Measurement Recording Equipment Location for Main Power Transformer for Intermittent Renewable Resource (IRR), and to combine greyboxes at Section 3.3.2.1.

VCMRR032, Calculation of Average Running Hours per Start when Determining the Variable O&M for QSGRs. This Verifiable Cost Manual Revision Request (VCMRR) clarifies that the average run time per start is calculated by dividing the total running hours by the total number of starts during the 20 consecutive day period, and ensures that at a minimum, one start will be used in the calculation of the average run time per start when the Resource is operating on the first interval of the first day of the 20 consecutive day period.