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Received - 2023-01-18 07:17:07 PM Control Number - 52373 ItemNumber - 389

## **Public Utility Commission of Texas**

## Memorandum

- TO: Chairman Peter M. Lake Commissioner Will McAdams Commissioner Jimmy Glotfelty Commissioner Kathleen Jackson
- FROM: Commissioner Lori Cobos

**DATE:** January 18, 2023

**RE:** January 19, 2023 Open Meeting

Agenda Item No. 5, Project No. 52373, Review of Wholesale Electric Market Design

Agenda Item No. 6, Project No. 53298, Wholesale Electric Market Design Implementation

Agenda Item No. 7, Project No. 54335, Review of Market Reform Assessment Produced by Energy and Environmental Economics, Inc. (E3)

At the work session held on January 12, 2023, the Commission had a robust discussion on potential near-term actions that could be taken to maintain reliability while a long-term reliability plan is developed by the Commission in collaboration with the Electric Reliability Council of Texas (ERCOT) and Legislature. Along with enhancing operational reliability and flexibility with the optimization of ERCOT's Ancillary Service portfolio, I continue to believe that the Commission should take near-term actions to help retain our existing long-duration dispatchable thermal generation fleet that is needed to maintain reliability during multi-day events (specifically, multi-day extreme heat or extreme cold weather conditions as required by Senate Bill 3),<sup>1</sup> while a long-term reliability plan is carefully and holistically evaluated and ultimately executed in an effective and responsible manner to help incentivize new dispatchable generation investment in ERCOT.

From my perspective, these near-term actions include the following:

- 1) Reducing and replacing current Reliability Unit Commitment (RUC) practices with existing market-driven processes to retain our long-duration dispatchable thermal generation fleet; and
- 2) Letting the operating reserve demand curve (ORDC) work, as intended, to send market signals for new dispatchable generation investment in the interim.

<sup>&</sup>lt;sup>1</sup> 87th Leg., R.S., Senate Bill (SB) 3.

While ERCOT's current RUC practices may provide short-term reliability benefits, this continued practice may ultimately come at a long-term reliability cost by speeding up the retirement of older, long-duration dispatchable thermal generation plants that are needed on the system to help maintain reliability until these generation units can be replaced with new dispatchable generation plants. Currently, ERCOT's aging long-duration dispatchable thermal generation fleet is under "physical operational pressure," because these plants are being run harder and run in ways that the plants were not intended to run on a regular basis. These generation units are needed to meet our state's growing electricity demand, especially during extreme weather conditions (like multi-day winter weather events). Therefore, in my view, ERCOT's existing RUC practices should be reduced and replaced with existing market-driven processes to preserve these valuable long-duration generation assets to avoid long-term reliability problems and start sending market signals for new dispatchable generation investment in the interim.

According to ERCOT's preliminary feedback at the work session, RUC cannot be replaced with ancillary services, like the ERCOT Contingency Reserve Service (ECRS), a new 8-hour offline Non-Spin product, or an Uncertainty Product, as proposed by the Independent Market Monitor and Coalition for Dispatchable Reliability Reserve Service, because setting aside more reserves in ancillary services will continue to impact generation commitment decisions that will increase ERCOT's need to RUC.<sup>2</sup>

Two alternatives to RUC have been proffered, Reliability Must Run (RMR) and the Backstop Reliability Service (BRS).<sup>3</sup> Importantly, RMR is nationally known in the electric utility industry as a sign of market failure, which makes no sense at a time when the state is trying to attract investment in new dispatchable generation. RMR could be very costly<sup>4</sup> for consumers and will not help send market signals for investment in new dispatchable generation in the interim, while a long-term reliability plan is developed. In fact, ERCOT's reliance on RMR could very well negatively impact our state's ability to attract investment in new dispatchable generation with a long-term reliability plan.

<sup>&</sup>lt;sup>2</sup> Open Meeting Tr. at 130:15-131:15 (Jan. 12, 2023).

<sup>&</sup>lt;sup>3</sup> Previously described as Strategic Reserve Service (SRS) and Backup Reliability Service.

<sup>&</sup>lt;sup>4</sup> See Potomac Economics, 2018 State of the Market Report for the ERCOT Electricity Markets at 109, FN 45 (Jun. 1, 2019) (The last RMR contract was executed in 2016 for NRG's Greens Bayou 5, a 371 MW natural gas steam unit built in 1973. On March 29, 2016, NRG submitted a Notice of Suspension of Operation to ERCOT, indicating that Greens Bayou 5 would be mothballed indefinitely beginning June 27, 2016. On May 27, 2016, ERCOT made a final determination that Greens Bayou 5 was necessary for RMR service. The Greens Bayou 5 RMR agreement was effective June 2, 2016 for a term of 25 months and a total budgeted cost of \$58.1 million, plus the opportunity for up to 10% more as an availability incentive. ERCOT initially determined that Greens Bayou 5 was needed for transmission system stability in the Houston region during the summers of 2016 and 2017 until the Houston Import Project transmission upgrade was completed. The RMR contract was approximately \$22 million, and the generation unit was never operated during the term of the contract. Ultimately, on December 5, 2017, NRG submitted a Notification of Change of Generation Resource Designation for Greens Bayou 5, declaring the generation unit permanently decommissioned as of December 31, 2017.).

In contrast, three independent consultants have found that the BRS would provide reliability benefits.<sup>5</sup> The E3 report and ERCOT's BRS implementation analysis are based on assumptions that unnecessarily complicate and elongate the implementation of BRS<sup>6</sup> and do not reflect the dynamic nature of the BRS. The BRS, as originally proposed in my memorandum,<sup>7</sup> can be built in a nimble, dynamic, and scalable manner to help take the physical operational pressure off the long-duration dispatchable thermal generation units that are currently being subjected to RUC on a regular basis and could effectively start sending market signals for new dispatchable generation investment in the interim with strong real-time energy prices produced by the recently enhanced ORDC. Based on ERCOT's previous filings<sup>8</sup> and recent success in quickly implementing the Firm Fuel Supply Service (FFSS)<sup>9</sup> in a matter of five months,<sup>10</sup> ERCOT can leverage its experience with existing competitive request for proposal (RFP) processes to efficiently implement a BRS in a manner that does not delay a long-term reliability plan.

As stated during the work session, I am open to considering other alternatives for reducing and replacing RUC in a manner that does not delay the implementation of a long-term reliability plan and would request that ERCOT evaluate all options, as soon as possible, for the Commission's consideration.

<sup>6</sup> See Review of Market Reform Assessment Produced by Energy and Environmental Economics. Inc. (E3), Project No. 54335, E3 Report, Staff Memorandum and Updated Questions Filed by Staff, E3 Report at 33-42 (Nov. 10, 2022) (describing key assumptions); see also Review of Market Reform Assessment Produced by Energy and Environmental Economics, Inc. (E3), Project No. 54335, ERCOT's Preliminary Assessment of Implementation Cost and Timeline of PCM and BRS at 2-4 (Dec. 15, 2022) (describing assumptions). The E3 Report and ERCOT's implementation analysis are based on the creation of a new settlement process where BRS costs would be allocated to load serving entities (LSEs) based on each LSE's total consumption during "identified hours of highest reliability risk." This new settlement process is overly complicated and unnecessary. As originally proposed in my memorandum, BRS costs can be allocated based on load ratio share that is measured on a coincident net peak interval, which allows the BRS to more consistently align with SB 3. Finally, BRS can be designed to allow BRS resources to resolve transmission congestion issues to avoid ERCOT having to perform transmission security studies.

<sup>7</sup> Review of Wholesale Electric Market Design, Project No. 52373, Commissioner Cobos's Memorandum, Attachment B (Nov. 18, 2021).

<sup>8</sup> Review of Wholesale Electric Market Design, Project No. 52373, ERCOT Letter Regarding Backup Reserve Service (Feb. 9, 2022).

<sup>9</sup> Review of Wholesale Electric Market Design, Project No. 52373, ERCOT Letter Regarding FFSS Phase 1 Procurement Results (Sept. 27, 2022); Wholesale Electric Market Design Implementation, Project No. 53298, ERCOT Letter Regarding FFSS Phase I Procurement Results (Sept. 27, 2022).

<sup>10</sup> See Open Meeting Tr. at 82:25-105:22 (Apr. 21, 2022) (Policy discussion and Commission direction provided to ERCOT at the open meeting held in April regarding FFSS framework for the first RFP); see also Review of Wholesale Electric Market Design, Project No. 52373, ERCOT Letter Regarding FFSS Phase I Procurement Results (Sept. 27, 2022) (ERCOT issued an RFP to provide FFSS on Jun. 30, 2022).

<sup>&</sup>lt;sup>5</sup> Open Meeting Tr. at 212: 23-214:3 (Nov. 19, 2021) (Brattle Group representative providing high-level feedback on the BRS (formerly, SRS) as set forth in Commissioner Cobos's memorandum and stating that the BRS is a viable option in the context of reliability and sending price signals for investment); *Review of Wholesale Electric Market Design*, Project No. 52373, Assessment of ERCOT Market Structural Changes filed by Texas Consumer Association at 40 (Oct. 26, 2022); *Review of Market Reform Assessment Produced by Energy and Environmental Economics, Inc. (E3)*, Project No. 54335, E3 Report, Staff Memorandum and Updated Questions filed by Staff, E3 Report at 52-53 (Nov. 10, 2022).

## Long-Term Reliability Plan

From a long-term reliability standpoint, first and foremost, the Commission should open a project to evaluate and establish an appropriate reliability standard for today's rapidly evolving, dynamic ERCOT grid that properly balances reliability and consumer cost. As a necessary first step, ERCOT should update its 2018 reserve margin study.<sup>11</sup>

From my perspective, a long-term reliability plan should be based on the following general principles:

- 1. Consistent with ERCOT's competitive electricity market ("do no harm")
- 2. Protects the competitiveness of the wholesale and retail markets in ERCOT
  - a. Strong mitigation measures to help prevent gaming opportunities and market manipulation in the wholesale market and ensure appropriate voluntary mitigation plans are in place to address future market conditions
  - b. Strong mitigation measures to help prevent market power abuse and preserve customer choice (i.e., customers continue to have options on retail electric providers and products)
- 3. Market-based
- 4. Transparent and predictable
  - a. Creates a transparent and stable price signal for new dispatchable generation investment
  - b. Creates transparent and predictable costs for LSEs so they can proactively hedge and manage wholesale supply costs for their customers and avoid costs through demand response measures
- 5. Retains existing long-duration dispatchable thermal generation
- 6. Maintains reliability with a higher penetration of intermittent renewable generation on the system (addresses net peak load) pursuant to SB 3
- 7. Maintains reliability during extreme weather conditions (addresses multi-day extreme hot or cold weather conditions) pursuant to SB 3
- 8. Robust non-performance penalties
- 9. Considers cost impacts for all consumers (residential, small business, commercial, and industrial consumers)

I look forward to discussing these important matters with you at the open meeting tomorrow.

<sup>&</sup>lt;sup>11</sup> Project No. 42302, *Review of the Reliability Standard in the ERCOT Region*, ERCOT's Letter to Commissioners— The Brattle Group's Report, "Estimation of the Market Equilibrium and Economically Optimal Reserve Margins for the ERCOT Region" (Feb. 21, 2019).