



Control Number: 52373



Item Number: 250

# Public Utility Commission of Texas

## Commissioner Memorandum

2021 NOV 17 PM 12:17

**TO:** Chairman Peter M. Lake  
Commissioner Lori Cobos  
Commissioner Jimmy Glotfelty

**FROM:** Commissioner Will McAdams *WM*

**DATE:** November 17, 2021

**RE:** Project No. 52373, Item No.21 – *Review of Wholesale Electric Market Design*

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On November 4, 2021, this Commission held a vigorous discussion about what near-term and long-term tools would be needed by ERCOT to address challenges that will come with the changing resource mix of our generation portfolio. During this workshop, Chairman Lake challenged us to look beyond the LSE Obligation proposal for other solutions that could provide a framework to address long-term system reliability.

Taking this direction to heart, I have considered the Gas Energy Credit system authorized under PURA § 39.9044, the Goal for Natural Gas. While this is a statutorily authorized mechanism for procuring dispatchable generation, it focuses on only one fuel type of generation resource. For the PUC to commit to making natural gas the predominant resource within the ERCOT market, at a time when the fuel cost of natural gas is rising at a sustained and alarming rate, could be economically imprudent for Texas consumers.

Instead, I have begun to consider the broader policy issues that the referenced program was designed to address, such as the Renewable Portfolio Standard. In this instance, the Legislature clearly identified a goal for renewable energy that they deemed necessary to the public interest. The Renewable Energy Credit system was a key component to both the design of this policy, but also ensuring the desired outcome was achieved.

In 1999, Texas developed the first comprehensive REC system in the United States, and it has been a model for other programs around the world in incentivizing inexpensive renewable energy to the benefit of ratepayers. Twenty-two years later, we face new challenges. The grid of 2021 needs to not only be reliable but also resilient. Section 18 of Senate Bill 3, enshrined in PURA § 39.159, directs the Commission to undertake a similar evaluation to identify how much dispatchable generation is needed for grid reliability and resiliency under certain scenarios. One of these scenarios specifies periods of “low non-dispatchable power production in the power region.” As Chairman Lake has articulated, “we need new steel in the ground” to meet this challenge.

I believe that the broad policy of PURA § 39.159 provides us with the ability to develop our own goal for new dispatchable generation to ensure grid reliability. As such, we should

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establish a Dispatchable Portfolio Standard, similar to the goal set for renewables twenty years ago. This new goal should be calculated to account for the continuing strong growth of the ERCOT grid. The Texas economy is growing rapidly, and we need to address this head on. If electricity consumption in the ERCOT region grows just 2% per year, and that is conservative given the number of people and industry relocating here, then we will need 15 GW of additional generation capacity in 10 years just to keep up with the growth – and that is assuming no retirements of existing generation resources. And when we consider ERCOT’s analysis of potential ramping needs of the region that I discussed on November 4<sup>th</sup>, we need that new generation to be flexible. From this Dispatchable Portfolio Standard, we would establish a system for certain qualifying generators to create Dispatchable Energy Credits, which would be bought, sold, or traded in a fashion similar to the REC program now.

Key Concepts:

- **Goal:** The annual DPS goals for the program life would be determined at the outset and are based on forecasted increases in energy consumption and peak demand for the ERCOT market. Annual DPS targets would be set as an annual percentage of total ERCOT retail energy sales, with each LSE required to procure a minimum amount of DEC equal to a share of system demand during key peak seasonal intervals from the prior year. ERCOT could maintain a centralized clearinghouse for DECs allowing credits to be cleared over a 12-month period. LSEs under this program would maintain the optionality to enter into bilateral agreements for qualifying DECs, procure directly from the clearinghouse, or pay an alternative compliance payment. I welcome input from market participants and my fellow commissioners on how best to right-size this program.
- **DEC Generation Accreditation & Qualification:** PUC should identify performance standards for new generation qualifying for DECs. For example, PUC could require qualifying DEC generation to be facilities able to ramp to full nameplate capacity within 5 minutes or less and have a net facility specification heat rate less than or equal to 8,000 Btu/kWh, or a battery that can discharge for at least 2 hours.
  - **Qualifying Hours of Performance:** Only generation that bids into the market and clears during hours 06:00 – 20:00 should qualify for a DEC.
  - **Verification of Performance:** PUC should verify performance qualifications of dispatchable generation, either as a one-time verification or annually.
  - **Compensation Conditions:** Pay for performance based on accepted bids into ancillary services, the day-ahead market, or the real-time market.
  - **Interconnection Qualification:** Generation seeking qualification for DECs should only be interconnected at transmission voltage.
- **Penalty for Non-Performance:** Alternative Compliance Payment should be imposed, similar to the ACP for RECs to ensure that the cost to customers remains reasonable.

ACP funds would then be applied to Ancillary Services costs incurred and thereby would reduce costs for all consumers.

- **Retail Obligation:** Every load-serving entity would have an annual requirement based on their share of system demand during key peak seasonal intervals from the prior year. That requirement could be met by either buying DEC's or paying the ACP.
- **DEC Sunset:** This program is meant as a transitional incentive. The duration of the program and the annual goals needed to be met should be established at the outset and should not be open-ended.

While the DPS program outlined in the accreditation of generation resources that qualify for DEC's would exclude most of the existing dispatchable fleet, this Commission appears to have consensus on a suite of new ancillary services, as well as adjustments to the Operating Reserve Demand Curve, that will undoubtedly have the effect of supporting our existing dispatchable generators. I believe this two-track approach to ensuring reliability is needed. The first track focuses on bolstering the economic health of our baseload fleet in the near term, while the second, as outlined by this memo, focuses on guaranteeing that new, efficient, and economic dispatchable generation is built over the long term.

This plan has the added dividend of eventually mitigating its own effect, regardless of success or failure. If the DEC program is a success and the credits are in demand, then new generation gets built. In that case, over time, like REC's now, DEC's become cheaper. If, on the other hand, no DEC's are generated or no LSE's want to buy them, then those LSE's are paying a percentage of their load in ACP's to offset the needed increase to ancillary services. In either case, this plan can get new steel in the ground without dramatically increasing costs for Texas ratepayers.

I look forward to discussing this matter with you at the next work session.