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PROJECT NO. 52373

REVIEW OF WHOLESALE ELECTRIC MARKET DESIGN	**§** **§**	**PUBLIC UTILITY COMMISSION OF TEXAS**

HUNT ENERGY NETWORK, L.L.C.'S RESPONSE TO COMMISSION STAFF'S REQUEST FOR COMMENTS ON PHASE II MARKET DESIGN CONCEPTS AND PRINCIPLES

Hunt Energy Network, L.L.C. (HEN) submits the following comments in response to the Public Utility Commission of Texas (PUCT or Commission) Staff's request for comment on Phase II market design concepts and principles. Staff requests that all comments be filed by noon on December 10, 2021; therefore, these comments are timely filed.

I. INTRODUCTION

HEN appreciates the goals and principles articulated by Commission Staff in its December 6, 2021 memorandum, and believes those concepts can be achieved and adhered to while also remaining true to the first principles that underlie the robust ERCOT energy market. Fundamentally, both the Load-Side Reliability Mechanism (LSRM) and the Backstop Reliability Service (BRS) Phase II proposals are intended to encourage the development and operation of committed dispatchable generation sufficient not only to meet expected system demand but also to serve as a safety net to minimize emergency conditions in ERCOT. HEN believes the Phase I market design changes are substantial and, with additional minor adjustments described herein, which effectively implement the BRS proposal using Ancillary Services already deemed essential for reliability, can be used to further enhance price signals that will incent dispatchable generation investment and improve prices signals for resources to self-commit in real-time, without implementing the potentially duplicative LSRM proposals as described in the Phase II strawman changes.

HEN's comments below seek to accomplish the stated objectives of the LSRM and BRS proposals by providing a targeted, business-pragmatic, and measured approach with minimal system changes and disruption to the market-friendly, innovation-driven ERCOT market. Appropriately designed markets can best address customer demand for products and services and the State's need for a reliable and resilient electric grid.

II. GOAL: INCENT DISPATCHABLE RESOURCES

Simply stated, the goal of the LSRM and BRS proposals are to incent dispatchable generation resources. As noted in a November 2021 Brattle Group presentation,[1] this goal

[1] *See* Brattle Group Impact Assessment of ORDC Changes, Interchange Item 246 (Nov. 5, 2021).

can be accomplished by increasing prices (e.g., revising the ORDC) and/or increasing demand for reserves in real-time (e.g., by increasing Ancillary Service procurement that supports price formation), and by providing opportunities for dispatchable resources to generate revenue based on the value they provide to the system. HEN recommends that the Commission implement these tactics by directing ERCOT to promptly adjust existing market products, rather than stacking a new market product with undefined reliability benefits on top of existing products. The tools already exist to incent investment in new dispatchable resources, and they can be tweaked to address the current state of grid resources. Additional adjustments to the use of Non-Spinning Reserve Service (Non-Spin) and Responsive Reserve Service (RRS) can achieve the stated goals of the LSRM and BRS proposals with less uncertainty and without the inefficiencies of physically withholding capacity from the electric grid.

A. The Commission should fine tune existing reserves practice in lieu of the Phase II proposals.

1. Adjust current Non-Spin practice to incent dispatchable generation and encourage resources to self-commit. .

Non-Spin is procured to increase available reserves in Real-Time Operations. While these additional reserves are available to the Security Constrained Economic Dispatch (SCED), as currently used by ERCOT, Non-Spin does not provide an appropriate price signal for resources to self-commit. Quite the opposite—in the past, ERCOT has been forced to use the Reliability Unit Commitment (RUC) process because resources have not self-committed.

Recent ERCOT market data supports HEN's assessment of the inefficient use of Non-Spin. Currently Non-Spin is mostly provided by online resources that are available to SCED for dispatch with an offer floor of $75/MWh. Starting in July 2021, ERCOT has progressively increased the quantity of Non-Spin from about 1500MW to about 5000MW. However, as shown in Chart 1 (in Attachment 1 to these comments), the increased procurement of Non-Spin has not resulted in any noticeable increase in the six-hour-ahead headroom (as shown by the yellow stars), even with significantly increased RUC of resources.

The reason for this counter-intuitive market outcome is that the ORDC was not adjusted to provide a price signal reflecting the value of the added reserves nor was the price-suppressing impact of deployed Non-Spin energy accounted for in Real-Time Settlement Point Prices (RTSPP). In other words, increased procurement of Non-Spin, without additional changes, did not provide the price signals for resources to self-commit. This flaw can be remedied by adjusting the ORDC (which the Commission has already undertaken as part of the Phase I market design changes) and reversing the price suppressing impact of deployed Non-Spin energy through the Reliability Deployment Price Adder (RDPA).

The RDPA is a real-time price adder that is intended to reverse the price-suppressing impact of reliability deployments on energy prices for each SCED process. RDPA is calculated as the difference between the System Lambda price calculated in the *pricing* two-step SCED run, which is run with reliability deployments generally taken out (resulting in higher System Lambda), and the System Lambda calculated in the *dispatch* two-step SCED run.

Currently, the RDPA, along with the ORDC adder,[2] is paid to all available capacity that is not providing Ancillary Services. Paying the RDPA to all available capacity essentially treats the RDPA as an operating reserve value. However, as the name RDPA suggests, it is supposed to be a ***price adjustment adder*** and not an operating reserve value (which is the purpose of the ORDC adder). Unfortunately, the RDPA has been implemented as if it were, and serves the same purpose as, the ORDC adder. This inappropriate implementation results in substantial costs to customers over time, sends inappropriate locational price signals, and adds actual and opportunity costs because of the claw back mechanism of the Ancillary Service imbalance charge.[3]

Correctly implemented, the purpose of the RDPA would be to adjust prices at the Locational Marginal Price (LMP) level, not at the System Lambda level. The difference in the LMP price at each node should be calculated by subtracting the nodal LMPs generated in the SCED *dispatch* run from the nodal LMPs generated in the SCED *pricing* run. Only positive differences in the nodal LMPs in the two SCED runs should be paid, and those payments should go only to the resources that were "dispatched" in the pricing run. This revised calculation would send the correct RDPA locational price signals and pay resources that help resolve constraints—and not inappropriately pay resources that create or exasperate constraints. In addition, to ensure Ancillary Service products serve as a backstop reserve, the price suppressing impacts of Ancillary Service deployments must be reversed to ensure adequate price formation. Today, the price suppressing impacts of many reliability actions are being reversed in the calculation of the RDPA, but the price suppressing impacts of deployments of Non-Spin and RRS are not being fully reversed. For example, the deployment of Non-Spin has price suppression effects if other resources are needed above the $75 Non-Spin price floor. Similarly, because RRS is offered at its marginal cost, it has price suppressing effects when deployed. To prevent suppression of real-time energy prices, all energy

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[2] Under Real-Time Co-optimization (RTC), ORDC (which become Ancillary Service Demand Curves under RTC) are paid only to dispatchable capacity capable of providing Ancillary Services and increase energy prices only if there is an opportunity cost for providing energy. This can be implemented prior to RTC but would require system changes. Can provide more details if requested by Commission.

[3] The Ancillary Service imbalance charge returns to ERCOT any revenues from the ORDC adders for capacity already paid in the Ancillary Service market.

dispatched by SCED from resource capacity providing Ancillary Service should be treated as "reliability deployments" and their price-suppressing impact on energy prices reversed through the RDPA. HEN's proposed changes should produce the appropriate price signals and incentive for dispatchable resources to self-commit and be dispatched by SCED—foregoing the out-of-market RUC action—and would better utilize Non-Spin as a tool to help prevent emergency conditions in ERCOT. These changes would incent dispatchable resource investment (essentially implementing BRS in an efficient, expediated, and well-defined manner) while at the same time ensuring that societal cost is not unnecessarily increased through the inefficiencies of physically withholding energy, as the BRS proposals would do.[4]

2. Adjust current RRS practice to procure the expected ECRS future levels as RRS as soon as practicable.

Consistent with workshop discussion to procure about 2,000 MW of ERCOT Contingency Reserve Service (ECRS), HEN recommends implementing the concept by increasing RRS quantity by 2,000 MW. This modification requires no system change and would, along with Non-Spin changes above, help ensure dispatchable resource adequacy. Since RRS is held behind the High Ancillary Service Limit (HASL), it currently is not dispatchable by SCED and is held in reserve until it is needed for large frequency deviations, a critical reserve to restore lagging frequency and protect the grid. Increasing RRS procurement today to provide an ECRS-like service, ahead of ECRS implementation, would increase system "demand" and, therefore, provide a much-needed reliability service and serve to support resource adequacy and dispatchable resource adequacy. To prevent the potential suppression of real-time energy prices, all energy deployed from resource capacity providing Ancillary Services should be treated as "reliability deployments" and their price-suppressing impact on energy prices reversed through the RDPA as described above.

B. The Phase II market design proposals are not needed at this time.

HEN believes that the Phase I market design changes are substantial and, with the adjustments described above, address the main gaps in the current market design including the goals of Phase II changes. These changes can be implemented in current ERCOT systems relatively quickly and easily. Adoption of the Phase II proposal, as currently described, likely would be redundant to the Phase I changes and HEN's recommendations.

[4] Although not essential to implement immediately, a new Ancillary Service forward market (like the Congestion Revenue Rights (CRR) market) could be operated by ERCOT to provide forward price signals thereby further encouraging investment in dispatchable generation resources.

The LSRM would draw regulators more deeply into the operation of the market with endless battles over capacity credits and other issues, rather than relying on innovation through market processes. Under LSRM, the Commission would become the most important customer for market participants, at the expense of electricity customers. Additionally, as the future market is likely to be much more diverse and commercially complex, with the line between producers and customers virtually disappearing where distributed resources flourish, an obligation like the LSRM would become challenging for market participants to comply with and for the Commission and ERCOT to oversee. HEN recommends that the Commission carefully and thoroughly evaluate the costs and benefits of the LSRM proposal in particular to avoid unintended harm to the market.

III. GOAL: INCREASE FUEL RESILIENCE BY FIRMING FUEL SUPPLY

HEN recommends that the Commission require fossil fuel generators to either have on-site fuel storage or direct access to such storage by means of firm delivery for a specified number of days.[5] Generators that consider all or a portion of the related added cost to be not economically justified can request that such cost be paid for by means of a new firm fuel product. The new product costs would be paid by all load serving entities (LSEs) on a load ratio share (LRS), like the way Black Start and Reliability Must Run (RMR) are recovered. However, when there is any firm fuel curtailment on the system, profits made by generators that were paid through the firm fuel product could have those profits clawed back and credited to LSEs on a LRS in proportion to the portion of cost paid by the market, similar to how RMR is processed today. This clawback provision would make the product more equitable among generators that invest in fuel firming on their own and generators that rely on the firm fuel product to pay for that capability. More details on this proposal can be provided upon Commission request.

A focused mechanism such as this is preferable to attempting to enforce the firm fuel requirement than through a broad LSE Obligation or similar market construct as suggested in the Phase I design changes. This surgical approach avoids customers paying more for this fuel supply insurance than should be paid, especially during the time the market has not developed sufficient firm fuel capacity.

[5] HEN acknowledges the Phase I market design changes include the Commission directing ERCOT to develop a firm fuel-based reliability product but adds these comments based, in part, on Brattle's analysis of a fuel firming product as an alternative to LSERO+. *See* Brattle Group Market Design Options for Managing Reliability in ERCOT, Interchange Item 255 (Nov. 19, 2021).

Respectfully submitted,

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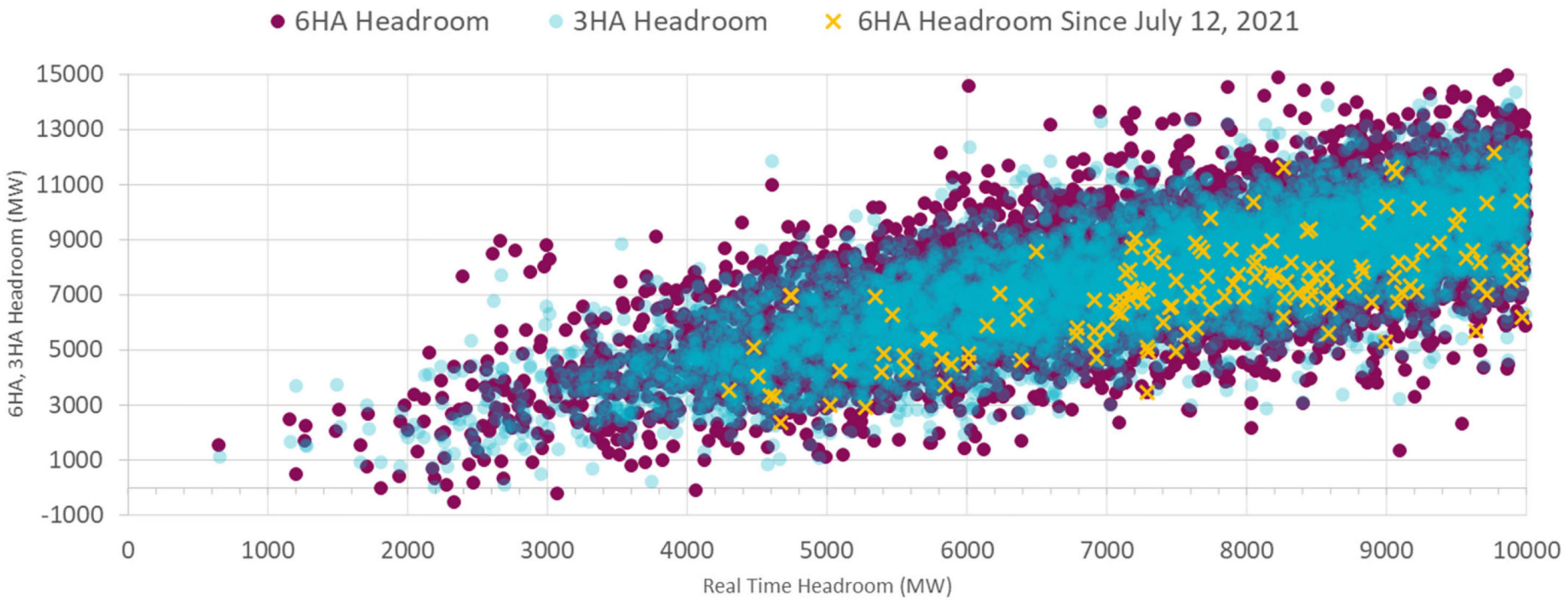
Trend in historic Headroom

- 6 hours ahead, 3 hours head and real time Headroom between January 1, 2020 and July 31, 2021* was also analyzed. There were several instances where the real time headroom was lower than the 6 hour ahead headroom.
  - ~23% off these instances real time headroom was lower than 6 hour ahead headroom by an amount greater than 1430 MW.
  - ~5% off these instances were related to peak conditions



3HA/6HA Headroom = Total Online HSL + Offline Non-Spin – Active Load Forecast

Real Time Headroom = Total Online HSL + Offline Non-Spin – Actual Load

*Excludes Feb 14 – Feb 28, 2021

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EXECUTIVE SUMMARY OF HUNT ENERGY NETWORK, L.L.C.'S RESPONSE TO COMMISSION STAFF'S REQUEST FOR COMMENTS ON PHASE II MARKET DESIGN CONCEPTS AND PRINCIPLES

Below is an Executive Summary of Hunt Energy Network, L.L.C.'s (HEN) response to the Public Utility Commission of Texas ("PUCT" or "Commission") Staff's request for comment on Phase II market design concepts and principles.

- HEN's comments seek to accomplish the stated objectives of the Phase II proposals by providing a targeted, business-pragmatic, and measured approach with minimal system changes and disruption to the market-friendly, innovation-driven ERCOT market.
- The Phase I market design changes are substantial and, with additional fine tuning, can be used to further enhance price signals that will incent dispatchable generation investment without implementing the potentially duplicative LSRM proposals.
- The goal of incentivizing dispatchable generation resources can be accomplished by increasing prices (e.g., revising the ORDC) and/or increasing demand for reserves in real time (e.g., by increasing Ancillary Service procurement that supports price formation), and by providing opportunities for dispatchable resources to generate revenue based on the value they provide to the system.
- Additional modifications to the use of Non-Spinning Reserve Service (Non-Spin) and Responsive Reserve Service (RRS) can achieve the stated goals of the LSRM proposals with less uncertainty and without the inefficiencies of physically withholding capacity from the electric grid.
- ERCOT should adjust current Non-Spin practice by removing the price suppressing impact of deployed Non-Spin energy through the Reliability Deployment Price Adder (RDPA).
- ERCOT should adjust current RRS practice by moving procurement to the expected ECRS future levels as soon as practicable.
- If HEN's recommendations are adopted, the Phase II market design proposals are not needed and likely would be redundant, more costly, and hurt resource adequacy by driving existing generation out of the market too soon.
- HEN recommends that the Commission require fossil fuel generators to either have on-site fuel storage or direct access to such storage by means of firm delivery contracts as an alternative to the LSRM proposals, and further recommends an optional funding mechanism.