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March 11, 2021

Public Utility Commission of Texas
Chairman Arthur C. D'Andrea
1701 N. Congress Avenue
Austin, Texas 78711

Re: PUC Project No. 51812, Issues Related to the State of Disaster for the February 2021 Winter Weather Event

Dear Chairman:

As the Independent Market Monitor (IMM) for the Public Utility Commission of Texas (Commission), Potomac Economics appreciates the opportunity to follow-up on our March 4, 2021, recommendation related to real-time energy prices during the recent winter weather event.

As stated in our March 4, 2021 letter, ERCOT recalled the last of the firm load shed instructions at 23:55 on February 17, 2021. Therefore, in order to comply with the Commission Order,[1] the pricing intervention that raised prices to the value of lost load (VOLL) should have ended immediately at that time. Regrettably, ERCOT failed to do so and instead issued a notice to the market that it would remain in an emergency state through the morning of February 19, signaling to generators ERCOT's intention to hold prices at $9,000 per MWh over this period.[2]

This decision resulted over-priced energy in ERCOT's real-time market by $16 billion. Correcting this error will not reduce costs to consumers by $16 billion because a substantial share of the demand is served by owned generation or forward contracts. Given the deliberations currently underway regarding our repricing recommendations, this letter provides our estimates of the changes in settlement costs that would result from our recommended price corrections described in our March 4, 2021 letter, as well as the settlement effects of our recommendation to cap the Ancillary Services (AS) prices at the VOLL of $9,000 per MWh that we made in our letter dated March 1, 2021.

The results of the analysis described in this letter only includes transactions that are settled by ERCOT and, therefore, do not include forward contract settlements. Since all changes in settlements will net to zero for ERCOT, the positive changes for some entities will be offset by negative changes for other entities. Our results are netted at the corporate level, which accounts

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1 PUC Project No. 51617, Calendar Year 2021 – *Open Meeting Agenda Items without an Associated Control*; Second Order Directing ERCOT to take Action and Granting Exception to Commission Rules at 1-2 (Feb. 16, 2021); PUC Project No. 51812, *Issues Related to the State of Disaster for the February 2021 Winter Weather Event*, Order Directing ERCOT to take Action and Granting Exception to Commission Rules (Mar. 1, 2021).

2 http://www.ercot.com/services/comm/mkt_notices/archives/5225.

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for any offsetting effects on multiple entities under the same corporate umbrella. Therefore, they provide as accurate an analysis of the effects of entities' financial positions as possible, since some entities both have generation and serve load.[3] When we account for day-ahead market positions and all offsetting supply and demand positions at the corporate level, our recommendations would alter the ERCOT settlements by a total of $5.1 billion.

Two components of the settlement effects are related to correcting the real-time energy pricing:

- The real-time energy imbalance settlement effect is ±$3.2 billion. This represents the effects on net energy buyers and sellers in the real-time energy market.

- Total real-time reserve imbalance settlement (known as the Real-Time AS Imbalance Charge) effect is ±$1 billion. This reflects the change in make-whole payments to generators for energy that was not needed or produced. In other words, because ERCOT had a surplus of generation online offered at prices well below $9,000 per MWh, it was obligated to provide make-whole payments to cover the "lost profits" of all the generators that would have preferred to produce more energy at $9,000 per MWh.

The third settlement adjustment is associated with the remaining recommendation in our March 1 letter. ERCOT priced AS that were in shortage at prices much higher than the value of lost load of $9,000 per MWh. Ancillary services are generally operating reserves held aside to provide additional supply to satisfy the energy demand when unforeseen events occur. Neither ERCOT's protocols nor any Commission Order endorses pricing shortages of operating reserves higher than shortages of energy. Further, it is economically inconsistent to value operating reserves higher than the energy demand that they protect. Hence, we recommended that the Commission correct this pricing error by capping the AS prices at the VOLL of $9,000 per MWh. The net effect of this correction, accounting for offsetting effects at the corporate level, is ±$900 million.

Once again, these corrections do not include the effects of any transactions that are outside of ERCOT settlement. We recognize that there are futures markets that are derived from the ERCOT real-time prices. We had hoped that action on our recommendations would be taken quickly, prior to the settlement of these futures markets. Given that many of these futures products have now settled against the original inflated real-time prices, the unintended consequences in these markets of correcting the real-time prices have increased. Therefore, although correcting the prices will allow them to more efficiently reflect the actual supply and demand during this period, this resolution is complicated by the downstream impacts that are difficult to quantify. Importantly, these unintended downstream impacts relate almost entirely to the energy imbalance resettlement. Although this is the largest effect, it is also the portion of the error that was likely the most well-hedged by the ERCOT participants.

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[3] The results are rounded approximations and can change as meter and other data adjusts the load numbers used by ERCOT settlements.

Although the other two components of the corrections are smaller, these errors are arguably more harmful because they produce costs that are difficult or impossible to hedge. In other words, participants that have contracted for adequate supply or otherwise fully hedged their energy demand obligations receive an allocation of both the AS themselves and the AS imbalance costs that may be economically ruinous.

Therefore, we recommend that the Commission, at a minimum, seek to correct these two classes of inflated costs. Capping the Ancillary Services prices at $9,000 per MWh should be relatively straight-forward. The Real-Time AS Imbalance Charges would naturally be eliminated if the real-time energy prices are corrected. If real-time energy prices are not corrected, these charges could be addressed by suspending these make-whole payments. This would still allow the generators to be paid the uncorrected real-time energy prices for the energy they actually produced.

With regards to correcting the real-time energy prices, we note that the actions of ERCOT could understandably be perceived as a reliability instruction to generators to keep their resources committed throughout the event. At the corrected price levels, some generators may not cover all of their fixed as-offered operating costs. These costs would typically be recovered through a Reliability Unit Commitment (RUC) guarantee payment for generators instructed to run for reliability. Therefore, if the real-time energy prices are corrected, the IMM would not oppose a make-whole payment comparable to the RUC settlement for the period in question (0:00 February 18, 2021, to 09:00 February 19, 2021). This would result in make-whole payments only to generators whose as-offered operating costs exceeded their market revenue during this period.

As always, the IMM stands ready to address any questions the Commission may have regarding this or any outcome in the ERCOT wholesale market.

Sincerely,

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