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#### Project Number 48539

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Review of Marginal Losses in	§	Public Utility Commission
Security-Constrained Economic Dispatch	ş	of Texas

## COMMENTS OF CITIGROUP ENERGY INC

Citigroup Energy Inc. ("CEI") is a Delaware corporation with its principal place of business in Houston, Texas. CEI registered as a power marketer in Texas on July 13, 2005, pursuant to P.U.C. Subst. R. 25.105, and updated its registration on September 8, 2009, April 11, 2012, May 24, 2012, and April 10, 2013. CEI does not own or operate any electric facilities. CEI is a direct, wholly-owned subsidiary of Citigroup Inc. (Citigroup).

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#### I. SUMMARY OF COMMENTS

Marginal losses are a rational way to assign transmission losses in a wholesale electric market. Fundamentally, the right approach to any cost allocation issue is the principle of cost causation, which is one of the integral foundations of the ERCOT market design. However, the particular application of marginal losses in ERCOT in 2018 could potentially impact investors in the market and cause the retirement of additional generation in a time of low reserve margins while not substantially changing dispatch for wind generation resources that can cause transmission losses. In addition, marginal losses, as proposed by ERCOT, will disrupt a long-standing hedging tool in the congestion market. If the Commission implements marginal losses in ERCOT, it should do so after a significant period of time – five to ten years. At minimum, CEI recommends that the Commission not implement marginal losses for any time within the period addressed by prior CRR auctions. In addition, CEI opposes the implementation of marginal losses if the issues related to hedging of congestion risk are not addressed.

#### **II. IMPLICATIONS OF PRICE SIGNALS AND POLICIES**

Studies by ERCOT and the Brattle Group show small net cost savings to Texas – on the order of a few million dollars annually. However, this small cost savings will come by lowering generator revenue in the north zone and west zone and raising it in the Houston zone. Depending on the magnitude of the revenue impact, this could cause some older, more remote generators to retire, which could harm

resource adequacy in the near-term. If those same generators are needed for local reliability, then consumers may bear additional costs for reliability-must-run contracts that could be more costly than the savings offered by implementing marginal losses.

Despite this shifting of dollars between market participants geographically, modeling suggests that marginal losses won't substantially change the dispatch sequence of generating assets – merely the price that the generating assets will be paid. This is particularly true for west Texas wind generators that are farthest from load and have the potential to cause the most losses. Because of both federal tax policy and the absence of fuel costs, wind generators will largely continue to produce about the same number of megawatt hours that they would under today's transmission loss allocation policy.

Substantial investment in west Texas has occurred because of Texas' decision to invest billions of dollars in west Texas transmission for renewable generation, which has resulted in billions more of private capital investments. These investments have partially been the result of policies created by the Legislature and the Commission related to transmission planning and the allocation of transmission losses to loads. A significant policy change now related to how losses are allocated could cause investors to question the regulatory certainty provided by Texas in the future. Therefore, a delay in implementation is warranted to provide investor certainty in the Texas market and minimize the impact on resource adequacy.

### **III. CONGESTION HEDGING**

The Commission has created a market design that enables market participants the ability to hedge large risks related to fluctuation in energy pricing, in order to encourage investment by the private market in expensive new infrastructure. This was a good policy and the Commission needs to remain faithful to that policy. One of the major market risk components created by the ERCOT nodal market design is congestion. Congestion is a component of the locational marginal price (LMP) that varies by location due to the cost of dispatching a generator on the other side of a congested transmission element so that imports across the element don't overload the physical capability of that element, even when considering the possibility of the loss of another related transmission element due to unforeseen events. Relieving the congestion means dispatching a more expensive generator that doesn't require using the potentially congested element in order to deliver power. This keeps the transmission system secure and safe.

Since the nodal market opened, Congestion Revenue Rights (CRRs) Obligations pay or charge the difference in the Day Ahead Market (DAM) between two points on the system, which has always been solely the congestion component of the cost of power delivery. For example, if the DAM price at the North zone was \$25/MWh, and the price at the Houston zone was \$30/MWh, then the CRR for that time period for that pathway would pay \$5/MWh. CRRs settle at DAM prices, but loads and generators ultimately settle at real-time prices. Therefore, a number of CEI's customers prefer hedges in the realtime market (RTM). To accommodate this, the ERCOT nodal market has always had point-to-point Obligations (PTP obligations). By design, PTP Obligations cost the difference between two points in the DAM, and pay the difference between those same two points in the RTM. With this settlement arrangement, PTPs allow a market participant to "carry" a CRR from the DAM to the RTM, which helps hedge congestion risk in the RTM. Unfortunately, ERCOT has proposed that when marginal losses are implemented, CRRs will continue to pay the congestion component of a price difference between two points, but not the loss component of the price difference. However, in order to properly account for marginal losses in the DAM, ERCOT feels that PTP Obligations must charge and pay both the congestion component and the loss component.

It's important for the Commission to understand that this issue will disrupt congestion hedging in the real-time market, which is an unintended consequence of implementing marginal losses as proposed. To avoid this, we recommend that the Commission take comments specifically on this issue and work with ERCOT, the IMM, and market participants to develop with additional market design changes to accompany the implementation of marginal losses.

An additional consequence of CRRs not paying losses is that ERCOT won't have a long-term product to hedge loss risk. While we expect the private market would accommodate this, an ERCOT product would provide price transparency and can include use of ERCOT's model.

Respectfully submitted,

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