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**PROJECT NO. 52373**

**REVIEW OF WHOLESALE  
ELECTRIC MARKET DESIGN**

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**PUBLIC UTILITY COMMISSION  
OF TEXAS**

**POTOMAC ECONOMICS' PHASE II MARKET DESIGN COMMENTS**

Potomac Economics, the Independent Market Monitor (IMM) for the wholesale market in the Electric Reliability Council of Texas, Inc. (ERCOT) region, appreciates the opportunity to file these Phase II Market Design comments in Project No. 52373, *Review of Wholesale Electric Market Design*.

**1. Load-Serving Entity (LSE) Obligation**

The LSE Obligation proposal would establish specific capacity requirements to satisfy a specified planning reliability standard. The IMM supports the principles that are outlined in the Commission Staff memorandum dated December 6, 2021, particularly that prices should rise and fall efficiently as capacity margins change in ERCOT. This will ensure that the markets motivate new investment when capacity margins decrease and facilitate efficient retirements and suspensions when capacity margins increase and lead to substantial surpluses.

For the market to perform well in this regard, it is very important that it operate competitively. As previously discussed, there are market power concerns with the LSE Obligation proposal. Since a large portion of the existing supply will need to be sold to the LSEs to satisfy the requirement, many of the larger and even medium-sized suppliers will be “pivotal”, meaning their resources will be needed to satisfy the obligations. This will cause the market to be vulnerable to withholding by suppliers, which can result in bilateral prices that are much higher than competitive levels and prevent prices from falling when capacity surpluses emerge.

To address this concern, the IMM recommends that a backstop auction be included in the proposal that would take place after buyers and sellers have the opportunity to enter into resource-specific bilateral contracts. After an initial capacity showing by the LSEs, any uncontracted supply and uncovered load would then participate in a mandatory backstop auction. This would allow for most of the procurement to happen on a bilateral basis, while ensuring that suppliers are unable to withhold resources to inflate the capacity prices. Setting a competitive price in the backstop auction would serve to discipline attempts to exercise market power in the bilateral market in the same way that the real-time energy market serves to discipline attempts to exercise market power in the forward energy markets.

Some stakeholders have mentioned a mandatory “big fish” auction in which entities with large generation fleets would be required to offer their capacity prior to the LSE showing.<sup>1</sup> The IMM has concerns with an auction of this type because mandating the participation of only a portion of the market’s supply and none of the market’s load could lead to unpredictable and inefficient auction prices. Requiring all uncontracted supply and demand to participate in the auction as described above mitigates this concern.

## **2. Dispatchable Energy Credits (DECs)**

Ideally, electricity products should be defined and resources should be qualified to sell the products in a manner that is consistent with the needs of the system. Distinguishing dispatchable resources from others may be consistent with this principle because dispatchable resources generally provide higher reliability to the system. There are a number of ways to reflect this higher value in the market. Some Independent System Operators (ISOs) do this through the capacity accreditation process, providing much higher capacity credit to dispatchable

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<sup>1</sup> “Big fish” commonly refers to entities that own more than five percent of installed capacity in ERCOT.

resources than to intermittent resources. A similar approach could be adopted under the LSE Obligation proposal. An alternative is to establish a requirement for DEC's as outlined in Commissioner McAdam's memorandum dated November 17, 2021.

The DEC proposal, in combination with the other proposals to sustain an adequate portfolio of generating resources, should be designed to allow the market to perform as efficiently and competitively as possible. In this area, a well-performing market will:

- Facilitate new investment and the retention of existing resources that are needed to bolster reliability when capacity margins are relatively low or falling; and
- Facilitate retirement of existing resources and not motivate new investment when capacity margins are relatively high.

The best means to achieve these objectives efficiently is to produce price signals that will reflect the overall supply and demand for dispatchable generation in ERCOT. Therefore, if the Commission pursues the DEC approach, we recommend that it define a product that can be satisfied by both new and existing resources. An even more straightforward approach would be to accredit dispatchable resources to satisfy the LSE obligation in a manner that reflects their relative advantages in maintaining the reliability of the ERCOT system.

Second, if the Commission pursues the DEC proposal, we provide the following additional feedback on the qualifying criteria for resources to sell DEC's. First, all dispatchable resources should be qualified for this product. The growth in load cited by Commissioner McAdams can be satisfied by any dispatchable resources and the product need not be limited to resources that can start up or ramp extremely quickly. These resource characteristics do have value, but this value will be adequately compensated through ERCOT's energy and ancillary services markets.

Finally, the Commission should recognize that dispatchable resources with energy limitations provide less value than conventional dispatchable resources. For example, based on planning studies performed in New York, Potomac Economics estimated that a 2-hour battery provides reliability value to the system that is 40 to 66 percent of the reliability value of a conventional resource, depending on the penetration of these resources. Their value is particularly limited in periods of extended shortage, such as in Winter Storm Uri. Hence, it is important to reflect these differences in the qualification of energy-limited resources to provide DEC and in their qualification to satisfy the LSE obligations.

### **3. Backstop Reliability Service**

The backstop reliability service proposal has some similarities with the current Reliability Must Run (RMR) process that can be used by ERCOT to retain resources when they announce their intent to retire. ERCOT has rarely used this authority because it is a very costly means to improve reliability. Procuring resources through the RMR process or a comparable Backstop Reliability Service causes most of the economic and reliability value of the resource to be lost because they can only be deployed under rare conditions when the market is at the cap.

Alternatively, procuring resources through the ERCOT markets, including the LSE Obligation and DEC proposals discussed above, would allow the resources to be fully available to meet all of the system's reliability needs. For example, an existing generator in a sensitive location on the grid might be needed to address transmission overloads on a so-called blue-sky day. If it were held out of the market until the price reached the cap, it would not be available to resolve the overload and reliability in the local area could be jeopardized. Therefore, to the extent that resources are deemed needed for reliability, we recommend that they be procured

through the energy, ancillary services, and longer-term procurements that would make them fully available to ERCOT.

#### **4. Conclusion**

The IMM appreciates the opportunity to share these comments and looks forward to working with the Commission and market participants in the market redesign effort.

Respectfully submitted,

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**EXECUTIVE SUMMARY OF POTOMAC ECONOMICS' PHASE II MARKET DESIGN  
COMMENTS**

Potomac Economics, the Independent Market Monitor (IMM) for the wholesale market in the Electric Reliability Council of Texas, Inc. (ERCOT) region, appreciates the opportunity to file these Phase II Market Design comments in Project No. 52373, *Review of Wholesale Electric Market Design*:

1. To mitigate the market power concerns with the LSE Obligation proposal, we recommend ERCOT implement a backstop auction after an initial capacity showing by the LSEs. All uncontracted supply and uncovered load would be required to participate in the backstop auction. This will still allow most of the procurement to happen on a bilateral basis. However, it would mitigate market power by preventing supply withholding, while establishing an efficient price that will discipline the bilateral contracting.

2. We support the principle that dispatchable resources provide a higher reliability value to the system than non-dispatchable resources. To facilitate efficient long-term investment and retirement decisions, we recommend that all dispatchable resources be qualified to sell DEC's or, alternatively, to accredit dispatchable resources at a relatively higher level towards satisfying the LSE Obligation. In either alternative, the qualification/accreditation of dispatchable resources that are energy-limited should be reduced to reflect their lower contribution to the reliability of the system.

3. The proposed backstop reliability service would be a very costly means to procure resources to ensure reliability. Since they can only be deployed when the market is in shortage, much of the resources' economic and reliability value would be lost. This restriction prevents the utilization of these resources to manage congestion and resolve transmission overloads or to lower cost to ERCOT's customers by contributing to satisfying the system's energy, ancillary services, and ramp demands. Therefore, we recommend that ERCOT only procure resources through market products that allow the resources to be available to respond to the system's needs whether or not the price is at the cap.