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**Received - 2021-08-16 02:49:23 PM**

**Control Number - 52373**

**ItemNumber - 46**

**PUC PROJECT NO. 52268**

CALENDAR YEAR 2021 – WORKSHOP § PUBLIC UTILITY COMMISSION  
AGENDA ITEMS WITHOUT AN §  
ASSOCIATED CONTROL NUMBER § OF TEXAS

**PUC PROJECT NO. 52373**

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

**ORSTED ONSHORE NORTH AMERICA LLC’S  
RESPONSE TO THE REQUEST FOR COMMENTS**

Orsted Onshore North America LLC (“Orsted”) appreciates this opportunity to offer comments in response to the questions issued by the Staff of the Public Utility Commission of Texas (“Staff”) on August 2, 2021 and looks forward to working with the Commission and Staff as they develop the agenda for the upcoming work session on Market Design. Orsted stands ready to work in collaboration with the Commission as it reviews wholesale electric market issues.

**I. Introduction**

Orsted is a global clean energy company with an onshore portfolio of over 4,700 megawatts (MW) of renewable energy generating assets in operation or construction, including a majority located in ERCOT, the nation’s leading market for competitive renewable energy. Orsted and its financial partners have invested over \$2.5 billion across 11 utility-scale solar, storage, and wind projects in operation and under construction in the ERCOT market alone, representing an installed capacity of more than 1,850 MW. Our projects generate electricity that powers hundreds of thousands of homes, have created 2,000 construction and long-term operations jobs, and continue to invest hundreds of millions in tax revenue and landowner payments that benefit local communities, school districts, and help landowners keep their property in the family for future generations.

Renewable energy is an economic engine for Texas that is transforming rural communities and providing value to the companies that employ Texans throughout the state. With millions of

dollars in new tax revenue (or directed payments in lieu of taxes), Orsted's projects help communities build new school facilities, enhance roads and bridges, and expand emergency services – all without increasing local taxes on property. Orsted also partners with several fortune 500 companies, including Amazon, Exxon Mobil, and PepsiCo, that purchase low-cost renewable energy from our Texas portfolio to lock in long-term, fixed-price energy contracts to manage their overall operating costs.

As the Commission examines wholesale electric market design and ancillary service issues following the Winter Storm Uri outages, Orsted encourages the Commission to adopt a non-discriminatory approach to market design that fosters, rather than impedes, generation growth and investment in ERCOT. Texas has a proud history of pursuing an all-of-the-above approach to energy production, including oil and gas, nuclear, wind, and solar electricity generation. As a result, the Texas competitive market for electricity has delivered millions in customer savings, as well as benefits to local communities that host renewable energy projects. Orsted encourages the Commission to consider any ripple effect that changes to market design will have on not just the owners and operators of generation in ERCOT, but also the offtakers who pay for power under existing power purchase contracts. Orsted also encourages the Commission to look to existing market structures to address ancillary service availability in ERCOT.

## **II. Introduction**

1. *What specific changes, if any, should be made to the Operating Reserve Demand Curve (ORDC) to drive investment in existing and new dispatchable generation? Please consider ORDC applying only to generators who commit in the day-ahead market (DAM). Should that amount of ORDC-based dispatchability be adjusted to specific seasonal reliability needs?*

The ORDC price adder was adopted as a tool to ensure that adequate operational reserves exist in ERCOT. It is intended to represent the reliability costs or risks of having a shortage of operating reserves. Adoption and implementation of the ORDC took many years.<sup>1</sup> Subsequently, stakeholders voiced concerns that the ORDC failed to significantly incent significant generation development in ERCOT. In January 2019, following the announcement of certain plant retirements and facing declining reserve margins, the Commission directed ERCOT to implement a .25

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<sup>1</sup> See generally Project No. 37897, Project No. 40000, and NPRR 569 (adopted in November 2013 and implemented in summer 2014). See also PUC Open Meeting (Sep. 12, 2013).

standard deviation shift in the loss of load probability (“LOLP”) calculation using a single blended curve in summer 2019 followed by a second step of .25 in spring 2020.<sup>2</sup> At the time of this directive, the Commission had suggestions to increase the ORDC more than was ultimately ordered. All things being equal, an increase in the current ORDC price adder, or slope of it, will increase market revenue for existing generators if no other changes are made to the market in parallel. Orsted does not oppose similar incremental increases in the LOLP as such an increase would send a positive market signal for generation investment.

Orsted does have concerns about unintended consequences that would occur as a result of implementing the ORDC in the day-ahead market (DAM). At present, the ORDC mechanism is designed as a real-time product and is structured for ERCOT’s energy-only market. If the ORDC is applied in the DAM, it would not accomplish the desired goal of assuring sufficient operating reserves. While shifts in the existing LOLP would increase revenues during scarcity conditions, thereby potentially signaling additional market investment, Orsted does not recommend implementation of the ORDC in the DAM as this would divorce the adder from its operational intent.

2. *Should ERCOT require all generation resources to offer a minimum commitment in the day-ahead market as a precondition for participating in the energy market?*

A market change that requires all generation resources to offer a minimum commitment in the DAM as a pre-condition for participating in the energy market should not be adopted because it could cause unintended adverse reliability consequences and potentially decrease supply in ERCOT. For example, any construct that prohibits a generator from participating in the real time market, unless committed in the DAM, would potentially omit capacity from the market that does not actively participate in the DAM for a variety of reasons (i.e., maintenance, day ahead price risk, *etc.*). Additionally, non-voluntary, DAM participation may also negatively impact DAM price formation. A mandatory offer requirement in the DAM would require more generator participation in the DAM, but this would have the corollary impact of price suppression. Such price impacts would actually discourage new investment in ERCOT, as well as impact economics of existing generation fleet such that they may be encouraged to retire to reduce supply in the DAM. Accordingly, Orsted does not recommend a must offer requirement in the DAM.

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<sup>2</sup> PUC Open Meeting (Jan. 17, 2019).

a. If so, how should that minimum commitment be determined?

Not applicable.

b. How should that commitment be enforced?

Not applicable.

3. *What new ancillary service products or reliability services or changes to existing ancillary service products or reliability services should be developed or made to ensure reliability under a variety of extreme conditions? Please articulate specific standards of reliability along with any suggested AS products. How should the costs of these new ancillary services be allocated.*

If an objective in ERCOT is to encourage investment in peaker-like resources that can respond during peak conditions, Orsted recommends that increasing the minimum bid for non-spin (currently \$75/MWh) would be an effective solution to guarantee sufficient revenue for peakers when dispatched. ERCOT has not increased the minimum bid offer for non-spin for many years. This change would easily be made within SCED, compared to larger market construct changes, and it would have immediate benefit. In addition, ERCOT should also consider "indexing" of the minimum bid price for non-spin, as opposed to the \$75/MWh fixed price. An index price, either relative to new build or operational costs, would provide more price certainty for peakers such that they could have more certainty of cost recovery when dispatched.

4. *Is available residential demand response adequately captured by existing retail electric provider (REP) programs? Do opportunities exist for enhanced residential load response?*

n/a

5. *How can ERCOT's emergency response service program be modified to provide additional reliability benefits? What changes would need to be made to Commission rules and ERCOT market rules and systems to implement these program changes?*

n/a

6. *How can the current market design be altered (e.g., by implementing new products) to provide tools to improve the ability to manage inertia, voltage support, or frequency?*

a. Inertia

Despite increased intermittent resource penetration in ERCOT, inertia is not a significant issue for the ERCOT system. Currently, ERCOT can manage inertia through purchases of Responsive Reserve Service (RRS), which is expected to be a sufficient tool if low inertia ever justifies.

b. Voltage Support

In general voltage support is provided by generation and transmission devices (i.e., shunt capacitors). Currently, voltage support by generation is not compensated in ERCOT. If the voltage support is a matter of concern, Orsted recommends that transmission service providers (TSPs) should endeavor to identify economic and reliability-based system transmission improvements that improve voltage support to accommodate both current and future load growth to maximize economic efficiency. TSPs are presently discouraged in protocols from considering long term system needs, due to requirements that load or generation provide an economic commitment (among other criteria), which tends to be 1 to 2 years before said load or generator comes online. Transmission upgrades, however, can take 3 to 6 years to build. TSPs have existing cost recovery mechanisms for prudent projects, and the Commission should recognize that they can provide reliability benefits such as voltage support by looking at both current and future investment.

### III. CONCLUSION

Orsted appreciates the opportunity to respond to Commission Staff's request for comments in this matter and is available to discuss or provide additional information deemed to be helpful during the course of this proceeding.

Respectfully submitted,

/s/ Philip Moore

Philip Moore  
Senior Vice President  
Orsted Onshore North America  
812 San Antonio Street, Suite 500  
Austin, Texas 78701