| NPRR Number | 1186 | NPRR Title | Improvements Prior to the RTC+B Project for Better ESR State of Charge Awareness, Accounting, and Monitoring |
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| Date | August 24, 2023 |
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| **TAC Recommendation Opposition** | |
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| Requested Relief | Rejection of TAC Recommendation to Approve NPRR1186 – *See* TAC Report (08/22/2023) |
| Date of Decision | August 22, 2023 |

| Submitter's Information | |
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## Introduction

Eolian, L.P. (Eolian) hereby appeals the approval of Nodal Protocol Revision Request (NPRR) 1186, *Improvements Prior to the RTC+B Project for Better ESR State of Charge Awareness, Accounting, and Monitoring*, by the ERCOT Technical Advisory Committee (TAC) on August 22, 2023, and requests that the ERCOT Board of Directors (ERCOT Board) reject NPRR1186 and instruct ERCOT to resubmit a new NPRRs to separate out the system coding issues from determination of SOC parameters and related compliance obligations.

## Background

On May 31, 2023, ERCOT issued a Market Notice informing Market Participants that it was hosting a workshop on June 22, 2023, "to discuss potential changes that will improve monitoring and/or modeling of Energy Storage Resources (ESRs) in ERCOT systems and/or processes." On the day of the workshop (June 22, 2023), ERCOT posted NPRR1186 with a status of "Urgent" "so that the system changes associated with this [NPRR] can be implemented in the narrow window before development work on [RTC] & Single-Model ESR ("RTC+B") project begins."[1]

[1] *See* NPRR1186, Improvements Prior to the RTC+B Project for Better ESR State of Charge Awareness, Accounting, and Monitoring, ERCOT submission, "Requested Resolution" (Jun. 22, 2023) available at https://www.ercot.com/mktrules/issues/NPRR1186#keydocs.

On August 21, 2023, ERCOT filed a summary of market enhancement initiatives in PUCT Project Nos. 53298 and 55156.[2] Therein, ERCOT stated that in "March 2023 ERCOT began evaluating battery functionality in relation to current reliability needs and RTC market design. ERCOT developed Protocol language to improve the awareness, accounting, and monitoring of the SOC for a battery storage Resource in both the current market and with the delivery of RTC."[3] However, ERCOT began considering state of charge (SOC) issues presented in NPRR1186 much earlier than last March. Almost two years ago, in NPRR1096, Require Sustained Two-Hour Capability for ECRS and Four-Hour Capability for Non-Spin, ERCOT specifically discussed the issues presented in NPRR1186.[4]

On December 21, 2022, the Wednesday before the Christmas holiday, ERCOT revised its Business Practice Manual (BPM), *ERCOT and QSE Operations Practices During the Operating Hour*,[5] to add operational SOC requirements for ESRs even though such requirements were never considered or approved by the Public Utility Commission of Texas (PUCT). On several occasions, ERCOT staff has stated that the BPM supplements and clarifies the ERCOT Protocols, and suggested that the SOC requirements in the BPM are enforceable.[6] Furthermore, as early as January 2023, ERCOT agreed to host a workshop for "discussions around operations, discussions around [ERCOT's] expectations, discussions around [the BPM], if there is any pushback or anything that maybe we are missing or understanding… that workshop is… where we want to try to tackle those things."[7] Despite multiple meetings between ESRs and ERCOT over the past year to address ERCOT's SOC concerns, and repeated requests by ESRs to be involved in any proposed Protocol revisions to incorporate SOC requirements into the ERCOT Protocols or Other Binding Document (OBD), ERCOT posted NPRR1186 on an "urgent" timeline without notice to ESRs.

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[2] *See* PUCT Project No. 53928, Wholesale Electric Market Design Implementation, ERCOT Market Initiative Overviews for DRRS, ORDC, PCM, and RTC+B (Aug. 21, 2023) and PUCT Project No. 55156, Implementation Activities 88th Legislature (R.S.), ERCOT Market Initiative Overviews for DRRS, ORDC, PCM, and RTC+B (Aug. 21, 2023).

[3] *Id.* at pg. 16, Key Milestones, Development Stage (Aug. 21, 2023).

[4] *See e.g.,* ERCOT Staff comments at ERCOT Reliability Operations Subcommittee (ROS) meeting (Jan. 6, 2022) in "[In 1096, ERCOT is] solely looking at [an ESR's] current [SOC] and saying, is it sufficient to cover the obligation [the ESR has]. [] But going in at least for the next operating hour, you could check the [SOC] and see if [the ESR has the SOC] for the next operating hour, you know, based on [its] telemetered AS responsibility… [t]his gives much more flexibility to do ECRS, and in almost all cases, [the ESR] should be able to perform to this."

[5] ERCOT BPM, ERCOT and QSE Operations Practices During The Operating Hour, available at https://www.ercot.com/mktrules/bpm. For a redline version of the changes, please see "Key Documents" at ERCOT PDCWG Meeting (01.15.2023).

[6] *E.g.,* ERCOT staff comments at Jan. 18, 2023 PDCWG meeting: "the [BPMs] help you and align with [ERCOT's] expectations on, you know… the Protocols and the Operating Guides are there to set the real standards, the real compliance, the real real nitty gritty of what [ERCOT's] expectations are, but then, you know, there are offhand examples that are not gonna get put in the Protocols to specifically handle scenarios that need more definition. And that's how we use the [BPMs]… to put some of that extra clarity in there. So that way it's not too gray from reading the Protocols."

[7] ERCOT staff comments at Jan. 18, 2023 PDCWG meeting.

If implemented as written, NPRR1186 will: (1) impose restrictions on ESRs that will compromise grid reliability; (2) subject a subset of Resources (otherwise qualified provide multi-hour Ancillary Service products) to unreasonable operational impacts that will ultimately diminish the value of the assets; and (3) contravene the statutory requirements that (a) Ancillary Services have terms and conditions that "are not unreasonably preferential, prejudicial, discriminatory… or anticompetitive," and (b) ERCOT maintain grid reliability and ensure that all buyers and sellers of power, including ESRs, have equal access to the ERCOT System.[8]

Urgency

The ERCOT Protocols provide that an NPRR may be considered "urgent" "only when the submitter can reasonably show that an existing… condition is impairing or could imminently impair ERCOT System reliability or wholesale or retail market operations… ."[9]

ERCOT identified NPRR1186 as "urgent" because "[t]here is a sharp increase of Energy Storage Resource (ESR)-related projects in ERCOT's interconnection queue. Urgent status is necessary so that the system changes associated with this [NPRR] can be implemented in the narrow window before development work on the [RTC] & [NPRR963] project begins" (emphasis added).[10] However, ERCOT has made no reasonable showing of any existing condition that is impairing or could imminently impair ERCOT System reliability. Even if, as ERCOT claims in the Revision Description of NPRR1186 that additional SOC information will help ERCOT "better understand each ESR's current energy capability and expected energy capability in future hours," ERCOT has not shown how the lack of such information currently impairs or will immediately impair ERCOT System reliability. Additionally, ERCOT has not identified how or why a SOC compliance metric at the top of the Operating Hour (OH) for the provision of an Ancillary Service by an ESR that is qualified to provide that Ancillary Service during the OH—i.e., an additional compliance requirement that is not based on performance, but instead on possible non-performance—will be more helpful in ensuring ERCOT System reliability better than existing penalties for non-performance.

Reliability Concerns

Throughout this very abbreviated revision process, Eolian and many other stakeholders have raised concerns around scenarios where the requirements of NPRR1186 will result in serious reliability issues.[11] These issues have been raised at every level of ERCOT through stakeholder comments, three workshops that afforded Market Participants with few answers, three stakeholder meetings, and individual discussions with ERCOT. Despite ERCOT's acknowledgement of reliability concerns identified by Market Participants, the various disparate operational and economic impacts to ESRs, and the identification of legal implications associated with NPRR1186, the Board is being asked to recommend that the PUCT approve NPRR1186.

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[8] *See* Texas Public Utility Regulatory Act (PURA) §§ 35.004(h) and 39.151(a)(1) and (2).
[9] ERCOT Protocol Section 21.5(1).
[10] *See* ERCOT's Requested Resolution in NPRR1186.
[11] *See* Comments filed by Market Participants in NPRR1186 at https://www.ercot.com/mktrules/issues/NPRR1186#keydocs.

As further detailed in numerous filings by Market Participants,[12] NPRR1186 will cause:

- ESRs to arbitrarily withhold energy in future OHs irrespective of whether an ESR has actually been awarded in future OHs and the quantity of Ancillary Services the ESR has been awarded in future OHs. This withholding will prevent SCED from deploying ESRs with excess energy even in emergencies; and

- ESRs to charge during ERCOT Contingency Reserve Service (ECRS) and Non-Spinning Reserve Service (Non-Spin) deployments.

NPRR1186 will require an ESR carrying an Ancillary Service responsibility in a future OH to have sufficient SOC at the top of every hour, with a predetermined rate for making energy available to the market during the OH. While this may be logical under normal grid conditions to have reliable levels of Ancillary Services prior to a deployment, NPRR1186 does not account for (a) current or anticipated grid conditions, (b) whether the ESR is in an active Ancillary Service deployment, or (c) the sequence of such deployments. Forcing pre-determined charging requirements and discharging requirements on ESRs without considering grid conditions and deployments oversimplifies the role of ESRs, and impedes their capacity to serve the ERCOT System when most needed.

NPRR1186 will prevent ESRs from providing obligated capacity for awarded Ancillary Services, and will add load to the ERCOT System during tight grid conditions. Under NPRR1186, for every MW of ECRS dispatched to an ESR (that met the same qualification requirements as other Resource types), the ESR will be forced to charge. This will cause the ESR's net load to increase by two times the amount of Ancillary Services provided by the ESR. Instead of providing necessary Ancillary Services to the support the ERCOT grid, the ESR will be required to *pull* power from the ERCOT System to meet the arbitrary compliance obligations in NPRR1186.

Prior to the August 22, 2023, TAC meeting, Eolian (along with other ESRs, the "Joint Commenters") filed comments[13] that proposed eliminating this charging-during-deployment mandate and proposed a new variable 'Y' to that would allow ERCOT to fully deploy awarded ECRS and Non-Spin. Yet ERCOT claimed this proposal was too complicated and rejected it irrespective of significant stakeholder support for the proposal.

The amount of discussion and concern raised at each stakeholder meeting and in individual discussions with ERCOT staff and executives indicates that the provisions of NPRR 1186 are not ready for implementation.

[12] *Id.*

[13] *See* Comments filed by Joint Commenters in NPRR1186 (Aug. 21, 2023) available at https://www.ercot.com/files/docs/2023/08/21/1186NPRR-17%20Joint%20Commenters%20Comments%20082123.docx.

Discriminatory Compliance Requirements

NPRR1186 provides for an hour-ahead non-performance-based compliance metric applicable to ESRs – a level of compliance that is not applied to any other Resource in the market. In the absence of a clear explanation of the reliability issues of concern or evidence of a significant failure by ESRs to provide the Ancillary Services they are obligated to provide ERCOT, such a protocol appears discriminatory. The compliance requirements included in NPRR1186 will subject an ESR to a Protocol violation and enforcement action (including potential fines of $25,000.00 per incident of violation per day)[14] if the ESR fails to telemeter its required SOC for a single five-minute SCED interval. This is a deviation from all other compliance metrics used by ERCOT to evaluate compliance with Ancillary Service obligations, which are evaluated monthly on a QSE portfolio basis.

The compliance requirements in NPRR1186 are not necessary, and certainly not urgent. ERCOT currently has tools it can use to help ensure that ESRs comply with Ancillary Service obligations. These tools apply fairly to all Market Participants and have resulted in a successful, self-regulating market for decades. ESRs were developed with these tools in mind, and ESR operators expect to pay penalties based on those tools if they fail to meet their Ancillary Service obligations. The SOC requirement in NPRR1186 is the only Ancillary Service compliance metric not related to a Resource's actual performance in meeting obligations for which it is qualified to provide. However, ERCOT has stated that its systems cannot properly measure compliance on a QSE portfolio basis (though we are unclear as to why), and therefore, Eolian (and Joint Commenters) proposed a compromise—i.e., a monthly compliance structure similar to ERCOT's monitoring and enforcement of performance through the existing Protocols (e.g., Generation Resource Energy Deployment Performance (GREDP), Controllable Load Resource Energy Deployment Performance (CLREDP), Unannounced Testing). Notably, when Real-Time Co-optimization (RTC) is implemented, the Protocols provide these same monthly compliance metrics for ESRs—Energy Storage Resource Energy Deployment Performance (ESREDP).[15] There is no justification for setting an interim discriminatory, hourly compliance metric on ESRs. Yet ERCOT rejected this proposal outright with no explanation.

Recommendation

To avoid implementation of an NPRR with *known* negative reliability impacts, Eolian recommends that the ERCOT Board reject NPRR1186 and instruct ERCOT to resubmit a two new NPRRs to separate out the system coding issues from determination of SOC parameters and related compliance obligations. This approach will allow ERCOT's proposed revisions to be considered and appropriately deliberated in the stakeholder process. It will also help ensure that reliability issues are not *caused* by an NPRR purporting to correct them.

[14] *See* 16 Tex. Admin. Code (TAC) § 25.8(b)(3).
[15] *See* NPRR963, *Base Point Deviation Settlement and Deployment Performance Metrics for Energy Storage Resources (Combo Model),* and NPRR1014, *BESTF-4 Energy Storage Resource Single Model*.

Based on ERCOT's August 21, 2023 filings with the PUCT, in which ERCOT provided its timeline relating to the implementation of RTC, a decision by the Board to reject NPRR 1186 does not preclude ERCOT from developing a revised NPRR in time to meet its system coding deadline.[16] In its filing with the Commission, ERCOT indicated that it was not planning for the Board to approve NPRR1186 until the Board's October 17, 2023 meeting, and ERCOT would work to implement NPRR 1186 after PUC approval in November 2023.

Conclusion

ESRs qualified to provide multi-hour Ancillary Service products (such as ECRS and Non-Spin) are essential to the health of the ERCOT grid as it evolves to meet technological advances, a transitioning generation mix, and unprecedented load growth. The ERCOT Board must act in this instance to create the space and time needed for Market Participants to work collaboratively with ERCOT to define actual reliability issues and determine how to solve them without creating dangerous unintended consequences. Failure to do so will certainly create a chilling effect in the ERCOT market by discouraging the development and construction of longer duration ESRs in ERCOT, which will be to the detriment of grid resiliency and reliability, as well as all ERCOT consumers.

[16] *See* PUCT Project No. 53928, Wholesale Electric Market Design Implementation, ERCOT Market Initiative Overviews for DRRS, ORDC, PCM, and RTC+B (Aug. 21, 2023) and PUCT Project No. 55156, Implementation Activities 88th Legislature (R.S.), ERCOT Market Initiative Overviews for DRRS, ORDC, PCM, and RTC+B (Aug. 21, 2023).