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RULEMAKING RELATED TO RELIABLITY MUST-RUN SERVICE	§ § §	**PUBLIC UTILITY COMMISSION OF TEXAS**

NRG COMPANIES' COMMENTS ON STRAWMAN PROPOSAL

NRG Texas Power LLC, NRG Power Marketing LLC, Reliant Energy Retail Services LLC, Green Mountain Energy Company, Everything Energy LLC, US Retailers LLC, and NRG Curtailment Solutions LLC (collectively "NRG Companies") hereby files these comments regarding Commission Staff's strawman proposal for modifications of ERCOT Reliability Must Run requirements and processes, set forth in PUCT Subst. R. 25.502, filed by memorandum in this Project on October 10, 2016. NRG Companies also provides responses to the Staff's questions presented in the memorandum.

I. Introduction

Reliability Must Run ("RMR") agreements represent a significant variance from the competitive operation of both the wholesale and retail markets, and NRG Companies commend the Commission for their efforts to improve the RMR processes and to avoid the imposition of unnecessary costs on end use customers. The ERCOT competitive electric market has been successful with an efficient nodal design, sufficient levels of reliability, and delivering a wide range of customer retail choices at competitive prices. That success has been supported by on-going improvements in the market design guided by ERCOT through the stakeholder processes and by the Commission through its leadership on such issues. Critical to the continuing success of the ERCOT market is the willingness to consider broader reforms when the wholesale market does not perform as needed.

RMR service is required in instances where the ERCOT market does not send effective price signals to retain sufficient supply in the appropriate locations to provide reliable operation of the ERCOT system. The Commission should continue to advance the development of clear policies to minimize the use of RMR service and its market distorting impacts. These reforms must also ensure that a generator seeking to exit the market is treated fairly, and that the costs of RMR resources, as well as any alternative, are minimized to the greatest extent possible.

Furthermore, care must be taken in order to ensure that the efficient operation of the market is not distorted, and thus further stressed by the remedial measures exasperating the very reliability issue that the RMR service is intended to address.

NRG Companies generally support the Commission Staff's strawman proposal to reduce ERCOT's reliance on RMR service and also offers some suggested modifications and additional provisions for consideration to avoid unnecessary RMR service and to enhance the ability for stakeholders and regulators to discipline RMR costs, while also providing flexibility and equitable treatment for generation owners that are subject to RMR service. In summary, NRG comments propose to:

- Provide cost-based compensation for generation resources that must extend their availability given the increased timeline while ERCOT completes evaluation of RMR alternatives.
- Include a public comment period for stakeholders to offer feedback on ERCOT RMR studies and results.
- Clarify the timeline in the RMR complaint process for consistency.
- Clarify that out-of-merit-order dispatch provisions are limited to situations where a needed RMR agreement is not in place after the proposed 180 notice period.
- Ensure dispatch of RMR service or an RMR alternative does not negatively influence competitive markets.
- Allow ERCOT the ability to forego RMR service or RMR alternatives if the cost of the RMR exceeds the economic value of firm load interruption, considering the probability of occurrence.
- Establish a deadline for ERCOT to make a determination on whether an RMR alternative will be selected.
- Clarify that if an RMR alternative is selected, the generation resource previously subject to RMR service is released to suspend operation.
- Improve market transparency into the solicitation and results of the RMR alternatives evaluation.

II. Responses to Staff Questions

A. Is capacity subject to RMR service required to be included in the calculation of the share of installed generation capacity described in P.U.C. Subst. R. §25.401 and set forth in PURA §39.154? If it is not required, should this capacity be included in the calculation?

Capacity related to an RMR resource should be included in the calculation of overall ERCOT capacity, but should not apply as part of the generation entity's capacity for purposes of market power evaluation. P.U.C. Subst. R. §25.401establishes the standards for calculating the amount of installed capacity each power generation company controls as that relates to ERCOT-wide capacity limitations set forth in PURA §39.154, and other measures related market power such as in P.U.C. Subst. R. §25.504. When determining the installed generation capacity of a specific power generation company, §25.401(d) specifies that "the commission shall combine capacity owned ***and controlled*** by a power generation company" (emphasis added). Generation resources that are subject to RMR service are no longer controlled by the power generation company but rather are controlled by ERCOT. Therefore, capacity subject to RMR service should not be included in the calculation of installed generation capacity of a power generation company. However, when determining the total installed generation, §25.401(e) specifies that "the total installed generation will consist of the installed generation capacity that is ***located in, or capable of delivering electricity to***, a power region" (emphasis added). Therefore, capacity subject to RMR service should be included in the calculation of total installed generation.

B. Should certain categories of resources (e.g., wind generation resources or resources within a private use network that participate in ancillary services or energy markets) be exempt from consideration for RMR service? For resources within a private use network, how does this impact P.U.C. Subst. R. §25.361(f) and PURA §39.151(1)?

Intermittent renewable resources and private use networks ("PUNs") should be exempt from RMR service. As defined in the strawman proposal, RMR service is provided by a generation resource to meet a defined reliability need. In order to meet the threshold for providing a reliability service, a generation resource must be dispatchable and capable of increasing output when directed to provide that service. Strict control standards exist for providers of ancillary services and RMR service should be held to a similar standard. By definition, intermittent renewable resources are incapable of providing dispatchable capacity, except to limited and relatively unpredictable time periods, and thus should be excluded from providing RMR service. Committing such a resource to RMR service would be of limited value, and the costs to the market would be largely a wasted expense.

PUNs are typically designed with complicated relationships among various entities with agreements among the site load and resources that make RMR service terms and costs difficult to define and allocate. Costly resource upgrades, which costs would be uplifted to the market, would likely be necessary to isolate the generation resource from the PUN to be able to fully provide RMR service to ERCOT. Leasing and plant services agreements, as among operational elements and different owners of various portions of a PUN, for real property use, water service, steam service, and other arrangements further complicate the ability for a co-located generation resource to operate independently of the site load and provide RMR service to ERCOT. Therefore, given this complexity and undue cost associated with PUNs and RMR service, the Commission should also exclude private use networks from providing RMR service.

Regarding PURA §39.151(1) and P.U.C. Subst. R. §25.361(f), NRG Companies see no conflict with this conclusion. The PURA provision provides that:

> No operational criteria, protocols, or other requirement established by an independent organization, including the ERCOT independent system operator, may adversely affect or impede any manufacturing or other internal process operation associated with an industrial generation facility, except to the minimum extent necessary to assure reliability of the transmission network.[1]

While the statute provides an exception to the limitation otherwise applicable to protect manufacturing from undue independent organization requirements (i.e., ERCOT ***can*** impose adverse conditions on manufactures ***if*** needed to assure reliability), the provision is not mandatory that independent organization do so, even to assure reliability. In addition, the prohibition and exception are both placed on ERCOT, not the Commission. Therefore, there is no prohibition by the statute for the Commission to exclude manufacturing (i.e., PUNs) from consideration for RMR service. In addition, such exclusion from RMR is in support of the main policy objective of 39.151(l) - to avoid interference with manufacturing - and thus further assures the intent of the statute.

C. Should all RMR agreements be subject to approval by the Commission or the ERCOT Board of Directors?

Agreements for RMR service or RMR alternatives create significant variances from competitive operations for both the wholesale and retail markets and should be approved by the

[1] P.U.C. Subst. R. §25.361(f) similarly expresses this limitation on ERCOT.

ERCOT Board. Market participants in ERCOT are exposed to unexpected and likely significant costs under any RMR agreement. Given the significant impact of RMR service on the market and consumers, NRG Companies believe that the ERCOT Board of Directors should directly evaluate and approve all RMR agreements. Expedited review and approval by the ERCOT Board may be required based on the urgency of the reliability situation, but this can be accommodated as provided in ERCOT procedures as necessary.[2] However, as with all ERCOT decisions, any party with standing may appeal to the Commission to challenge ERCOT's actions[3] – and such proceedings could be handled on an expedited basis by the Commission if needed.[4]

D. Assuming there is a reliability need, should ERCOT have the discretion not to enter into an RMR agreement or select any RMR alternative in consideration of the cost of the RMR service or RMR alternative and the likelihood that such a reliability event will occur?

Yes. A cost threshold is appropriate to include in any RMR evaluation. ERCOT operates an energy-only market that, by design, does not provide for a minimum level of installed capacity to avoid firm load shed for system-wide or locational reliability challenges. Instead, the ERCOT market relies on scarcity prices to attract and retain sufficient supply. The primary mechanism to produce scarcity prices when reserves diminish is the Operating Reserve Demand Curve (ORDC). The ORDC utilizes a Value of Lost Load ("VOLL") of $9,000/MWh, also the System-Wide Offer Cap, which represents the economic value of firm load shed. Procuring RMR service or RMR alternatives that imply a higher VOLL than that used by the ORDC would be an inconsistent and distorting outcome for the energy-only market design. In addition, economic efficiency should be a fundamental consideration to lower costs for consumers. NRG Companies recommend that the Commission direct ERCOT to include a probabilistic and economic approach to evaluating RMR service or any alternative. Finally, NRG Companies would encourage ERCOT to be creative in using other means of avoiding capital costs in RMR service and should be empowered by this rule to do so, such as negotiating with environmental regulators to defer installation of environmental controls if feasible during the term of needed RMR service where the desired environmental benefit can be achieved

[2] ERCOT Bylaws Sections 4.6(b) and 4.07(e).
[3] *See* P.U.C. Proc. R. §22.251.
[4] P.U.C. Proc. R. §22.78(e).

through alternative means such as limited run hours and a shut-down obligation. Proposed rule language to direct ERCOT on this approach is provided below in subsection III. D.

III. Comments on Strawman Proposal Provisions

A. Extension of notice periods in RMR evaluation - §25.502(e)

Extending the notice period, for a generation resource owner to inform ERCOT of the owner's intent to mothball or retire a resource from 90 days to 180 days would benefit ERCOT and market participants by (1) increasing transparency of the process (once RMR service is determined to be needed), (2) providing more time for potential RMR generation owners to gather and refine RMR budget costs, and (3) allowing ERCOT to evaluate RMR alternatives in parallel to the generation resource subject to RMR service. However, this change cannot be implemented unless the process balances against the hardships and risks imposed on generation owners subject to this timeline extension, and stakeholders should have the ability to provide comments to ERCOT as part of the RMR study process.

Generation owners should not be exposed to increased financial losses to maintain the availability of an uneconomic resource for such a long period of time while ERCOT evaluates RMR alternatives under the increased timeline. Maintaining availability to ERCOT during an extended six month evaluation period, without reasonable compensation, would amount to an unconstitutional taking of property from the generation entity.[5] In the ERCOT energy-only market design, the generation owner does not receive capacity payments for making capacity available, as generators do in other organized markets. Therefore, the resource can only receive compensation for service to ERCOT if the resource is offered and operated pursuant to ERCOT economic dispatch (which would be exceedingly rare given the owner has designated the resource to be uneconomic and due to mothball or retire) or committed by ERCOT for Reliability Unit Commitment ("RUC") service that only compensates the owner for short-term costs; [6] and even then the resource is only paid when called for RUC service (i.e., when ERCOT has a specific reliability need for a particular day or number of hours), also likely to be rare. For on-going operating costs to keep the resource available, such as staffing and regular

[5] *See., e.g., Duquesne Light Co. v. Barasch*, 488 U.S. 299, 310; 102 L.Ed.2d 646, 658; 109 S.Cr. 609, 617 (1989) (rates must allow a company operate successfully, maintain its financial integrity, attract capital, and compensate its investors for the risk assumed to provide service).

[6] *See* ERCOT Protocols Section 5.7.

maintenance, the generator's costs are not compensated. Such costs can be significant, particularly over a six month period. Therefore, for fairness to the generation entity and to avoid an unconstitutional taking, some baseline of cost compensation must be included in the process. NRG proposes a cost-based approach in suggested language below, to allow cost recovery after the first 90 days of ERCOT review (which is consistent with the current process regarding the notice period for ceasing operations and the right to compensation for service) with details to be developed in the ERCOT stakeholder process.

In addition, the proposed timeline extension should also allow for stakeholders to review and scrutinize ERCOT's RMR evaluation; therefore, NRG Companies suggest that a public comment period, consistent with the current ERCOT Protocols process,[7] be included in the rule to ensure stakeholders can provide feedback to ERCOT on RMR study methods and results regarding the need for RMR service.

In keeping with these comments, NRG Companies offer proposed modifications to §25.502(e) of the strawman proposal: **[highlighted and bolded.]**

> (e) **RMR resources**. Except for the occurrence of a forced outage, a generation entity shall notify ERCOT in writing no later than 18090 calendar days prior to the date on which it intends to cease or suspend operation of a generation resource for a period of greater than 180 calendar days. Unless ERCOT has determined that a generation entity's generation resource is not required for ERCOT reliability, the generation entity shall not terminate its registration of the generation resource with ERCOT unless it has transferred the generation resource to a generation entity that has a current resource entity agreement with ERCOT and the transferee registers that generation resource with ERCOT at the time of the transfer. ERCOT shall maintain the confidentiality of the notification to suspend operations until it issues a final determination of the need for RMR service. This determination shall be made within 60 days of ERCOT's receipt of the notification to suspend operations. **Upon completion of the final determination, ERCOT shall publish a market notice, including the determination and supporting analysis, and solicit public comments on the final determination, to be due within 30 days of the market notice.** ERCOT shall have 120 days after issuing its final determination to enter into an agreement with the generation entity for RMR service. **A generation entity subject to potential RMR service for a resource shall receive cost-based compensation**

[7] ERCOT Protocols Section 3.14.1.2(2).

for maintaining the availability of a generation resource starting 30 days after ERCOT issues a final determination that the generation resource is required for RMR service. This cost-based compensation will be reduced by any market-based compensation earned by the generation resource during this period, and shall end upon ERCOT's release of the resource from RMR service consideration or the commencement of service under an RMR agreement. ERCOT shall adopt procedures to implement this process by March 1, 2017.

B. Timing of complaints related to compensation determination - 25.502(e)(1)

Modifications to §25.502(e)(1) in the strawman proposal describes the process for generation entities to file a complaint and seek compensation from the Commission in the event that ERCOT and a generation entity cannot agree on terms of an RMR agreement for a resource that has been designed for RMR service. Modified section 25.502(e)(1)(B) of the proposed strawman states that "the generation entity's deadline to file the complaint is 35 calendar days after the 120 calendar days following ERCOT's issuance of a final determination of the need for RMR service." With that change, §25.502(e)(1)(H), which establishes a default for accepting ERCOT's offer of RMR agreement terms, could be construed to require a generation entity to accept ERCOT's most recent offer prior to the dispute deadline. To resolve this inconsistency, NRG Companies offer clarifying language to the strawman proposal's modifications to §25.502(e)(1)(H):

(H) If the generation entity does not file a complaint with the commission **by the deadline specified in §25.502(e)(1)(B)**, the generation entity shall be deemed to have accepted ERCOT's most recent offer as of the 120~~115~~th calendar day after ERCOT's issuance of a final determination of the need for RMR service ~~receipt of the notice~~.

C. Clarification of out-of-merit-order requirements pending RMR status resolution - §25.502 (e) (2)

Section 25.502(e)(2) describes the process requiring a generation entity to make a resource available to ERCOT for the period between the effective date of the suspension notice and when ERCOT has designated the resource for RMR service but no RMR agreement has been executed, including when a dispute may be pending. Although Commission Staff did not propose any changes to this subsection in the strawman proposal, NRG Companies suggest

language below to clearly limit out-of-merit-order dispatch to the potential time period described above, and to specify that the out-of-merit-order dispatch will occur through ERCOT's RUC process. RUC is the process ERCOT uses to deploy resources procured for potential reliability needs, so this is the proper place for these resources to be committed and dispatched, pending resolution of RMR status and compensation. In addition, NRG points out that ERCOT dispatch policies have been adopted to ensure RMR resources are dispatched at the System-Wide Offer Cap for system-wide capacity insufficiency and are currently being considered to limit the "out-of-merit-order" impact of RMR dispatch on wholesale market prices when RMR resources are dispatched for transmission congestion.[8] Also, ERCOT implemented reliability deployment price adders in 2015 to prevent price reversals from out-of-merit-order reliability deployments from RMR resources and this policy should be extended to any RMR alternative.[9] NRG Companies suggest the following language to memorialize these market concepts:

> (2) **Out-of-merit-order dispatch pending RMR status resolution. If, after 120 calendar days following ERCOT's issuance of a final determination of the need for RMR service, and to the extent that ERCOT has determined that the generation entity's generation resource is the best solution to address the reliability need, both parties have not signed an RMR agreement for the generation resource, T**~~t~~he generation entity shall maintain the generation resource so that it is available for out-of-merit-order dispatch instruction **through the Reliability Unit Commitment process** by ERCOT until:
>
> > (A) ERCOT determines that the generation resource is not required for ERCOT reliability;
> >
> > (B) any RMR agreement takes effect;
> >
> > (C) the commission determines that the generation resource is not required for ERCOT reliability; or
> >
> > (D) a commission order requiring the generation entity to provide RMR service takes effect.
>
> *[new subsection]* **(3) Once an RMR agreement is effective between ERCOT and the generation entity subject to RMR service, ERCOT shall ensure dispatch**

[8] *See* ERCOT Protocols Section 6.4.4(2).

[9] *See* ERCOT Protocols Sections 3.5.2, 6.3.2, 6.4.4 1, 6.5.7.3, 6.6.1, 6.6.3.1, 6.7.4, and 6.7.5; ERCOT Board Report, August 12, 2014 at http://www.ercot.com/content/mktrules/issues/nprr/626-650/626/keydocs/626NPRR-12_Board_Report_081214.doc

of the RMR resource or RMR alternative minimizes any out-of-merit-order pricing impact to the ERCOT wholesale market. *[existing number subsections (3) and (4) to be renumbered accordingly.]*

D. Process for evaluation RMR alternatives – flexibility and transparency - 25.502 (e) (4)

NRG Companies support the strawman proposal's establishment of the process for ERCOT to evaluate alternatives to RMR service, in new subsection 25.502(e)(4). Staff takes the correct approach to require ERCOT to perform a cost-based evaluation of alternatives and to allow ERCOT discretion to select an alternative even if it does not provide an equivalent reliability contribution as the potential RMR resource, as long as the alternative resolves the reliability issue. In addition, in keeping the discussion above in subsection II. D. of these comments, to strengthen this portion of the evaluation process to lower costs and be consistent with the energy-only market design, NRG Companies offer language to include a probabilistic and economic evaluation of firm load shed in the context of considering possible RMR service in addition to an obligation to use best efforts to reduce capital costs of an RMR as much as possible.

NRG Companies urge that ERCOT should have a clear deadline for selecting an RMR alternative, which is unstated in the strawman proposal - and the rule should be clear that the generation resource intended to suspend operations should be released to do so if an alternative is selected. Finally, NRG Companies propose to improve transparency into the RMR alternative solicitation by including disclosure of bids or offers for RMR alternatives 60 days after ERCOT makes a final decision on whether to select an alternative as long as proprietary information remains protected. Based on these recommendations, NRG Companies suggest the following modifications to this subsection:

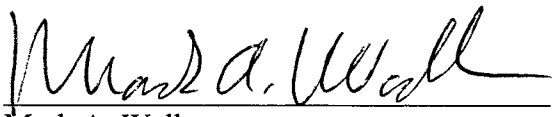
(4) **Evaluation of RMR service and RMR alternatives.** ERCOT shall develop criteria to consider the relative costs and reliability impacts of alternatives to an agreement with a generation entity to provide RMR service. If an RMR alternative provides cost savings in comparison to the RMR service, ERCOT may select the RMR alternative in place of the RMR service even if the RMR alternative does not provide an equivalent reliability contribution. Additionally, ERCOT may determine that no RMR service or RMR alternative is warranted when considering the likelihood of the reliability need **and the economic value of**

lost load compared to the cost of the RMR service or RMR alternatives. ERCOT shall make a final determination on whether it will select an RMR alternative by the 120th calendar day following ERCOT's issuance of a final determination of the need for RMR service. ERCOT shall use its best efforts to minimize RMR capital costs, including negotiation with environmental regulators to defer environmental controls during an RMR agreement term. If ERCOT selects an RMR alternative, or determines that RMR service will not be required, the generation resource that was found to be needed for RMR service may proceed to suspend or cease operation in accordance with the date specified in the generation entity's notice provided to ERCOT. ERCOT shall publish all bids and offers, redacted for protection of confidential information, submitted as an RMR alternative 60 days after ERCOT announces their decision on whether to select an alternative.

IV. Conclusion

NRG Companies appreciate the opportunity to provide these comments. While this rulemaking is important to improve processes related to RMR service, NRG Companies urge the Commission to consider holistic market design reforms that strengthen the performance of the ERCOT market. It is more efficient to have a market that sends effective economic signals, including on a locational basis, than RMR resources or RMR alternatives that distort market pricing and impose high costs on consumers. As the Commission provides its guidance, and as other parties provide their positions and suggestions, NRG Companies reserve the right to refine and modify its positions herein and to take positions on other issues not addressed in these comments.

Respectfully submitted,



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