NPRR Comments

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Comments

Reliant appreciates the opportunity to provide these comments on Nodal Protocol Revision Request (NPRR) 1296, which implements ERCOT's proposed Residential Demand Response Program. ERCOT held two different workshops in May and June of 2025 to take feedback from stakeholders. These comments reiterate some of the points discussed during those workshops, suggest potential modifications to the program structure to address concerns voiced by stakeholders, and preview a study by the Brattle Group sponsored by Google and Reliant outlining the benefits of growing residential Demand response through programs such as this. Reliant strongly supports ERCOT's efforts to develop a program to support Demand response products and services for residential customers offered by their Retail Electric Providers (REPs). The competitive retail market holds the most potential to increase residential Demand response capability, and REP administered programs partnering with home energy technology companies will harness and maximize this potential and should be the model for how to grow demand response in ERCOT. REPs are certificated and regulated by the Public Utility Commission of Texas (PUCT), which ensures sufficient customer protection and product disclosure requirements will be followed in implementing ERCOT's program.

The focus of Demand response products and services developed at ERCOT historically have been to the benefit of mid-to-large commercial and industrial consumers with services such as Emergency Response Service (ERS)[1] and participation in Ancillary Service products for Load Resources through both non-Controllable Load Resources ("NCLRs") and Controllable Load Resources (CLRs). Load Resources can now provide

[1] While residential aggregations can participate in Weather Sensitive ERS, the participation has been low relative to the total ERS procurement amount because the design of the ERS program is not conducive for larger participation by residential aggregations since it is difficult for REPs to manage customer enrollments and switching activity that occurs frequently in the competitive retail market.

Regulation Service (CLRs only), Responsive Reserve (RRS), ERCOT Contingency Reserve Service (ECRS), and Non-Spinning Reserve (Non-Spin). Along similar lines, the largest driver for Demand response in the ERCOT region has historically been the 4-Coincident Peak (4-CP) transmission cost allocation mechanism, which provides strong economic incentives to larger commercial and industrial consumers in the competitive service territories and Non-Opt-In Entities (NOIEs). While the PUCT is currently evaluating the merits of 4-CP, it is not clear what the outcome of that evaluation will be.[2] And mid-sized commercial and industrial customers have also received most of the incentives in the TDU load management programs.[3]

It is therefore long overdue to implement an ERCOT program focused on residential Demand response in the competitive market. Given increased adoption of smart energy devices in the home such as smart thermostats and home battery systems, aggregations of residential customers through their REPs could be meaningful and readily accessible resources in the near term to help address future resource adequacy issues.

Reliant supports the framework proposed by ERCOT in NPRR1296 given the desired expediency in implementation. In particular, the following design principles ensure REPs can maximize participation:

- Simple and Flexible Program Structure – To scale up participation as quickly as possible, the program must be simple and flexible to allow REPs to design and market retail products to customers to encourage their participation.

- Minimal Technical Complexity – The program design should minimize technical complexity (such as use of telemetry).

- Alignment with Times of Greatest Need – Program incentives should be aligned with times of the greatest need to ensure deployment helps address actual Resource adequacy needs.

- Reasonable and Equitable Allocation of Costs – Allocating costs based on Load Ratio Share (LRS), as proposed by ERCOT, will result in reasonable and equitable allocation because the program will benefit the ERCOT grid as a whole.

Reliant acknowledges the concerns expressed at both workshops and in written comments regarding the potential conflict of this program design with the energy-only market and price formation. As experience has shown since the implementation of the competitive wholesale market in ERCOT, crafting a market solution that solely utilizes energy price formation to successfully attract sufficient new Resources, including Demand response, on a timeline necessary to avoid grid emergencies (which meets the public's expectations for reliability) has proven difficult to say the least. Considering the

[2] *Evaluation of Transmission Cost Recovery*, Project No. 58484 (pending).
[3] Microsoft Word - 2024 CLM Program Manual 3-28-24, Microsoft Word - PY2025 Summer Res. Load Mgmt Program Manual 3-21-25 jn .docx, 2024_Residential_Load_Management_Guidelines.pdf, CenterPoint Energy AEDO Accreditation

prevalence of price suppressive policies and factors that already impact the ERCOT market[4] and the magnitude of Load growth expected over the next 5 to 10 years, it is time to look to other options that are more likely to succeed. That said, further evolution of the program design should be considered to include market pricing adjustments or implement other market design improvements to offset price formation impacts from this program and the many others that exist. Reliant suggests incorporation of an ERS-style price adjustment mechanism or transition of this program into ERS as potential long-term solution for stakeholders to consider. To address immediate concerns with market impacts during this initial implementation of the program, ERCOT included a 500 MW (9,000 MWh / 18 hr) cap on the compensation mechanism.[5]

ERCOT and stakeholders should be more concerned about the potential for significant Load growth in the coming years than pricing impacts from this program. ERCOT's adjusted Load forecast recently approved by the Commission estimates a peak Demand of 150 GW in 2031,[6] which equates to over 64 GW of Load growth compared to the current peak Demand record (85.5 GW),[7] or over 10,000 MW of Load growth per year through 2031. A conservative estimate of Load growth considering only the Large Loads that have approved planning studies plus those that have been approved to energize represents growth of over 20 GW through 2030 or 4,000 MW per year.[8] When facing this amount of Load growth (or even a fraction of it), worrying about energy price impacts from a very modest amount of residential Demand response, while ignoring the long list of other factors that undermine price formation in the energy market, is misguided. There are very few resources available to the ERCOT market that can respond in this near term (3 to 5 year) horizon, other than residential Demand response, and Reliant would rather have tools in place when they are needed than wait for a reliability crisis to occur.

When facing this new reality of historically significant Load growth, Reliant prefers to be pragmatic and support the implementation of ERCOT's Residential Demand Response (RDR) Program to help address the reliability challenge coming to the ERCOT market. To contribute to a thorough evaluation of the program and its corresponding benefits, Google and Reliant co-sponsored a study from the Brattle group outlining the benefits of

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[4] Non-comprehensive list of "out of market actions" that impact price formation in ERCOT's "energy-only" market: transmission cost allocation and rate design, subsidies for renewable generation, subsidies for energy storage generation, subsidies for thermal generation, energy & Ancillary Service offer caps below Value of Lost Load (VOLL), energy offer mitigation below VOLL, socialized line losses, subsidized energy efficiency programs (TDU, Muni, Coop), state and local rebates for HVAC system upgrades (peak Demand reduction), conservation appeals, firm Load shed priced below VOLL, etc.

[5] To encourage more robust participation, Reliant recommends a higher cap of 1,000 MW in the initial implementation, or an alternative figure based on a cost-benefit analysis with a phased-in approach to a higher cap as the program grows.

[6] *Reports of the Electric Reliability Council of Texas*, Project No. 55999, ERCOT's Revisions to Adjusted Load Forecasts and Amended Draft Proposed Order (Jun. 4, 2025), *available at:* 55999_140_1504530.PDF, and Order Granting Good Cause Exception (Jun. 5, 2025), *available at*: 55999_142_1505244.PDF.

[7] https://www.ercot.com/static-assets/data/news/content/a-peak-demand/records-yearly-archive.htm.

[8] Large Load Interconnection Status Update to the August 27th, 2025 Technical Advisory Committee found at: https://www.ercot.com/files/docs/2025/08/26/13.-LLWG-Report.zip

growing residential Demand response and how this program supports that goal. The full study is still in development and will be released in the coming weeks for stakeholder review, however, a summary of the conclusions of the study is provided below as a preview. In conclusion, Reliant sees great potential in residential Demand response and encourages stakeholders to support this program, or modification of it, as an incremental step forward in growing the participation of residential consumers in the ERCOT market.

Preview of Brattle Study on ERCOT Residential Demand Response Program

The Brattle study looks at the value that REPs will be able to realize if the RDR Program is implemented, and how that could affect customer adoption. Brattle preliminarily estimates that the RDR Program could roughly double the existing value per year per customer. That increase would augment the business case for REPs to market and gain consent from their customers to install and actively manage smart thermostats during tight system conditions. The same effects would occur, to varying degrees, for home batteries and electric vehicles as well. If adopted, this would put the ERCOT REP market at the middle of the range nationally in terms of the compensation available for consumer-side technologies to be engaged in Demand response, whereas today ERCOT lags substantially behind most other markets studied. As a result, Brattle estimates that the RDR Program would be effective in adding hundreds of megawatts of residential Demand response capacity to the ERCOT system, likely reaching the program's proposed cap of 500 MW within a few years.

Revised Cover Page Language

None

Revised Proposed Protocol Language

None