**FAQ: Stakeholder Questions**

Link to Large Load Workshop: [Here](https://www.ercot.com/calendar/06132025-Large-Load-Workshop)

Link to Market Notice: [Here](https://www.ercot.com/services/comm/mkt_notices/M-B062325-01)

Link to May LLWG Meeting Presentations: [Here](https://www.ercot.com/calendar/05162025-LLWG-Meeting-_-Webex)

If you would like to add additional questions to this list, please submit them to contact the LLWG Chair and Vice Chair (Bob Wittmeyer bob@longhornpwr.com and Patrick Gravois "Gravois, Patrick" Patrick.Gravois@ercot.com ) by July 3rd EOB.

# Questions Pertaining to ERCOT Studies (May LLWG)

## Load Loss Threshold Analysis (Presented by Luis Hinojosa)

1. Can ERCOT elaborate on how they determined what base case operating conditions to use for the analysis? Is there a single quantifiable metric to capture “worst-case grid conditions” for frequency response capability?
2. To what extent did generation and transmission outages in the study base case contribute to frequency response capabilities of the system?
3. How often are real-time grid conditions (minimal inertia, minimal foot room, etc.) equal to or worse than the conditions presented in the base case used for the analysis? Said another way, was the study done using a 95th percentile (or 99th percentile, etc.) frequency response capability condition?
4. Does ERCOT know what the load loss threshold for the system is when frequency response capability conditions are not as bad? Does ERCOT have some idea of what a curve of this relationship would look like?
5. Considering that the analysis was based on previous operating conditions from over a year ago (03/12/2024 2:47 AM), did ERCOT account for new generation (including ESRs) and transmission added to the system since then? If so, how was this done? If not, does ERCOT plan to update the study base case conditions on a regular basis to incorporate evolving grid conditions?
6. Can ERCOT comment on the extent to which BESS provided foot room for frequency response capability in the analysis? How large of a role did this foot room have in determining the study results?
7. Did the study assume that load remained offline after tripping, or was it assumed that the load returned to the system after several seconds of interruption (such as is seen in some Large Electronic Load (LEL) Uninterruptible Power Supply (UPS) configurations)?

## Preliminary Load Loss Assessment of Operational Large Loads (Presented by Yunzhi Cheng)

1. Could ERCOT elaborate on the methodology for modeling operational loads in the study case? The studied value of 3,055 MW is significantly higher than the observed Large Load non-coincident peak of 2,026 MW (as reported at TAC). Were energization ramp schedules, seasonal profiles, or IT/HVAC proportions considered in the analysis?
2. Did this analysis evaluate the ride-through response from all loads greater than 75 MW in the West Load Zone or just LELs?
3. Considering load energization ramp schedules, what study year does ERCOT first see an area wide VRT event that exceeds the limits evaluated in the Load Loss Threshold Analysis? Is it today? 1 year out? 2 years out, etc.?

# Questions Pertaining to the Large Load Interconnection (LLI) Process Changes

1. For LELs that are already in the category of “Planning Studies Approved” or have completed their stability study or the LLIS process, can ERCOT provide explicit direction on the expectations for needing to perform a new stability study? Would LELs updating generic models to detailed models be expected to perform a new stability study?
2. In the event a new stability study is needed, will the study assumptions (study case, inclusion of other Large Load projects, etc.) remain the same as the original stability study, or will the load be “un-approved” and new assumptions need to be used? If assumptions are changed, will a new steady-state study be needed as well?
3. If a LEL is prepared to energize their site today (have submitted DWG survey and updated model), does ERCOT have all the necessary tools, standards, and procedures in place to facilitate the energization on the timeline requested by the load? If not, when will those tools and procedures be ready?
4. Since ERCOT indicated in the Large Load Workshop that their desired solution is load curtailment but have not yet provided a methodology for implementing that solution, will ERCOT currently allow an LEL to energize if it cannot ride-through and the interim assessment indicates a potential System Operating Limit (SOL) or Interconnection Reliability Operating Limit (IROL) violation?
5. How much time does ERCOT expect the interim LEL ride-through evaluation process to add to the energization schedule of LELs?
6. Can ERCOT elaborate on the statement that “ERCOT may require the Interconnecting Large Load Entity (ILLE) or Customer to provide information that confirms the LEL's dynamic model accurately reflects the LEL's dynamic characteristics”? Does this imply some sort of model validation testing or commissioning process? If so, please explain how that process will be facilitated.

# Questions Pertaining to Implementation of LEL Curtailment for Loads that Cannot Ride-Through

1. What are the quantifiable conditions in which curtailment of LELs will be utilized, and how frequently does ERCOT expect these conditions to occur on the system?
2. Will curtailment of LELs be used as a last case scenario? If so, please outline the order of actions ERCOT plans to take prior to utilizing LEL curtailment.
3. Can ERCOT please explain their current thinking on how curtailment will be facilitated from an operational perspective?
4. How will the total necessary curtailment be allocated across different LELs within a single region binding under an SOL or IROL?
5. How long ahead of time will LEL operators be alerted of the need to curtail or potentially curtail?
6. How much time will LELs have to comply with an order to curtail?
7. Does ERCOT plan to implement any price adjustments due to the reliability deployment? If yes, how will this be implemented?
8. Will LELs on Under Frequency Load Shed (UFLS) circuits or carrying ancillary services as a load resource be required to curtail?

# Questions Pertaining to Large Load Dynamic Models and Survey

1. For operational and approved to energize LELs, will extensions for submitting the DWG survey be accepted if requested?
2. For LELs currently going through the large load study process, is there a predefined set of conservative assumptions recommended by ERCOT for either a generic model or the specific questions that likely cannot be answered upon initiation of the LLIS due to long leads on equipment or current unavailability of equipment specifications? Should the ITIC curve be used for preliminary generic modeling?

# Questions Pertaining to ERCOT’s VRT Assessment

1. How is ERCOT defining voltage ride-through for the sake of this interim assessment?
2. Why does the current study scope plan to study LELs at their total approved MW rather than in accordance with their Load Commissioning Plan, as is done for LLIS studies?
3. For the initial assessment including all energized and approved LELs projected to connect by the end of 2025, will ERCOT be confirming all loads in question are still expecting to request energization this year?
4. What does ERCOT consider a “credible transmission event” for the sake of this assessment?
5. Does ERCOT have a target date that the initial VRT assessment will be completed by?
6. How frequently will subsequent VRT assessments be performed?
7. What is the location of the proposed ride through requirements, i.e. POI or data center low voltage equipment?
8. Why does the SSO risk increase with co-located loads?

# Other Miscellaneous Questions

1. What is ERCOT’s proposed ride-though standard? If not ready yet, when will it be shared with stakeholders?
2. Does ERCOT think that a single ride-through curve is appropriate for all LELs, or that different curves should be curated based on the capabilities of different loads?
3. Is it ERCOT’s intention to replace the interim VRT assessment with a mandatory LEL VRT standard? Or will a future standard be used to define ride-through for the sake of the assessment?
4. Given that previous ERCOT analysis has shown several VRT events from non-LELs (notably 1,398 MW in West Texas, LFLTF Mar 2025) and significant non-LEL growth is expected in some regions of the state, what is the reasoning behind focusing these requirements on power electronic based loads such as crypto miners and datacenters?
5. Recent ERCOT presentations (LFLTF Mar 2025) on observed ride-through events since 2024 only report on LEL events and refer to monitoring only loads that went through the LLI process (mostly crypto loads). Is ERCOT monitoring for VRT events affecting non-LELs, or have there not been any relevant events in the past year? If there haven’t been any events, what changed?
6. Can ERCOT comment on why there is a significant difference between the maximum observed LEL ride-through event loss (432 MW) and pre-disturbance consumption (~800 MW) shown in the market notice, and the conclusions of the studies suggesting as much as 2,500 MW of LEL could trip?
7. What is ERCOT’s current thinking on managing frequency and voltage deviations due to load VRT events with new or modified ancillary service products or other contracted services?
8. Since ERCOT’s proposals are retroactive, are there any considerations of interim solutions for existing facilities that will need time to comply with new VRT specifications?
9. Do **non-grid connected backup generators** of any type (BESS, Diesel, Natural Gas, etc) larger than 10 MW (not injecting to the grid) must go through any interconnection process? If yes, why?
	1. FTM Load
	2. Co-located Load