1191NPRR

Section 6.5.7.12, Paragraph (2, a): To [TBC]: Subsection a) is extremely restrictive from a risk and collateral perspective. Non-CLR Large Loads can be dispatched effectively and in a knowable way through the scarcity-based pricing mechanism. More data collection can bring more certainty for non-CLR loads while we work to get more of these loads CLR approved. The ramp rate percentages are extremely restrictive. What happens if there is a sudden price increase and a miner that is taking the index/LMP is caught with a power bill that causes several financial losses due to not being able to ramp down fast enough?

Section 6.5.7.12, Paragraph (3): To [TBC]: Does [ERCOT Market Rules] intend to apply the ramp rate restrictions to the net-metered load of the combined Large Load and co-located Generation Resource at the POI/SDP, or to the Large Load itself? (E.g. if a 200MW Large Load is co-located with a 150MW Generation Resource, is the ramp rate calculation applied to the 50MW net-metered load, or to the 200MW Large Load?) If the latter, please provide clarity on how this is possible without separate EPS metering of the Large Load. We need clarity on this one.

Section 6.5.7.12, Paragraph (5): To [TBC]: The carve-out for NCLR Ancillary Service deployment signals is noted. Does [ERCOT Market Rules] intend to omit paragraph (1) from the same scope? If so, please provide clarity on why CLR-RRS registered loads are not included in paragraph (5).

Section 6.5.7.12, Paragraph (6): To [TBC]: Does [ERCOT Market Rules] define “material changes” in further detail in other existing documentation? If not, please define “material changes” in further detail, especially regarding the definition of “any equipment is to be retired, replaced, or otherwise modified[.]”

256NOGRR

The ranges of voltage ride through requirements are overly conservative. There are few large loads that could comply with these specifications as they are currently written.

This proposal has significant potential to impact the miner community. ERCOT's ppt references a number of industry organizations (IBR, ITIC, IEEE, etc) that perform independent testing and developed IT equipment standards. For example, ITIC developed the curve below establishing operating thresholds for equipment at varying nominal voltage multiples. ERCOT is proposing a set of new requirements (apparently utilizing the most favorable conditions from IBR, ITIC, IEEE) that soften grid operating requirements thus pushing risk onto consumers. In essence, ERCOT wants large loads to be capable of absorbing large fluctuations in voltage through the use of 1) equipment designed to tolerate these fluctuations or 2) protection devices made to normalize current. While most data center heavy electrical equipment is capable of "ride-through" (meaning they would not fail during a voltage fluctuation), the

exception is the mining machines. While some miner PSU's are rated up to 300v, the proposed fluctuations at 1.2x would result in 332v. Per ITIC, at 15ms this puts our machines in the Prohibited Region. The expected outcome is failed PSU's at scale. Again, many data centers are equipped with devices capable of sensing voltage fluctuation and tripping (de-energizing) the site during specific scenario. These devices could be tuned in accordance with the proposed requirements. However, the expected outcome would be more frequent trip events (i.e. de-energizing the entire site) which, in turn, puts more stress on the miners.

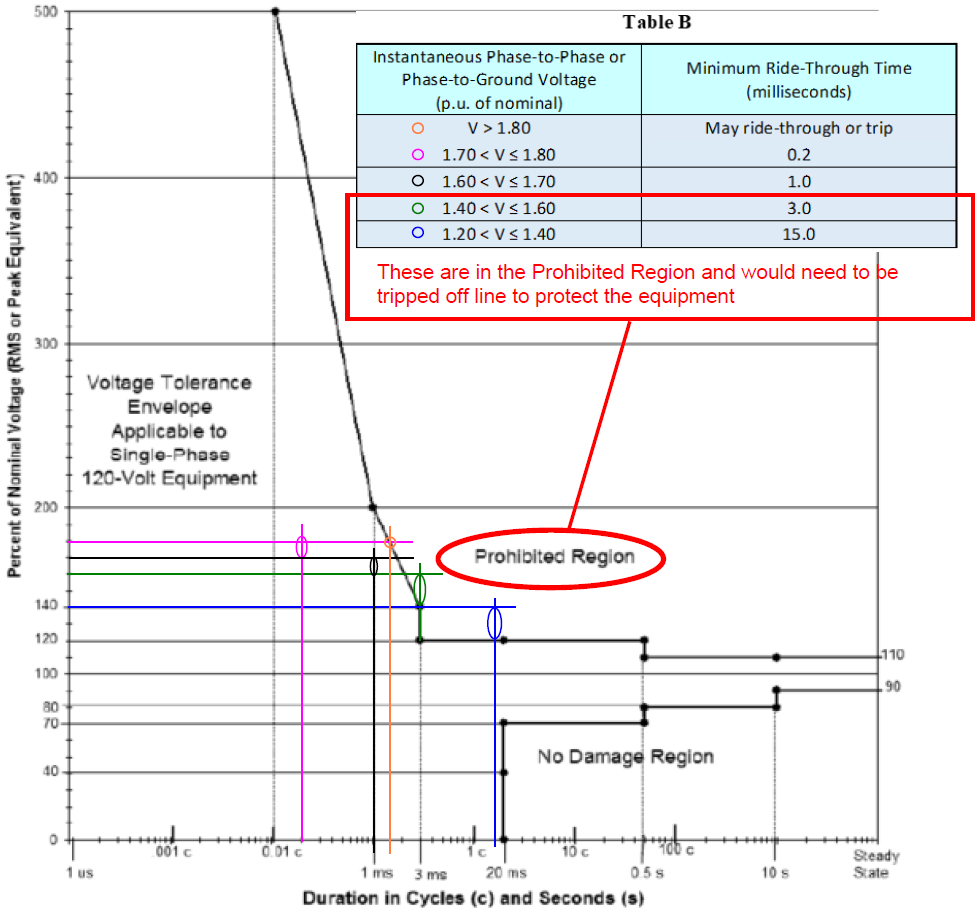

Table A

Root-Mean-Square Voltage (p.u. of nominal)	Minimum Ride-Through Time (seconds)
V > 1.20	May ride-through or trip
1.10 < V ≤ 1.20	0.5
0.90 ≤ V ≤ 1.10	Continuous
0.80 ≤ V < 0.90	2.0
0.70 ≤ V < 0.80	0.50
0.50 ≤ V < 0.70	0.20
V < 0.50	0.15

Not allowed above 120%.

These are within the ITIC curve above

These two are in the power off - No Damage Region