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Final Ad Hoc Interim Voltage Ride-Through Assessment for Large Loads Requesting Initial Energization Before July 1, 2026

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Operations Stability Analysis

May 21, 2026

Key Takeaways

- 8 planned LLs (~3.9 GW) with Initial Energization set before July 1, 2026 were assessed
- The study includes ~20 GW of LLs
- 4 LL groups may cause trip over 3200 MW: 2 in West Texas, 2 in North/North Central Texas

Study Overview and Results

- Study Case
  - Approved DWG 2028 HRML case, modified for anticipated transmission & generation conditions
- CTGs
  - 3 phase fault cleared normally at 137 buses (345kV)
  - 3 phase fault cleared normally at 10 buses (138 kV)
- Results
  - There are four LL groups that could potentially cause trip above 3200 MW
  - None of these groups currently operate at over 3200 MW

LL Trip Group 1 & 2 in North/North Central Texas

- Two LL groups have been identified in North/North Central Texas, with total potential tripping exceeding 3,200 MW.
- All LLs within these groups do not meet NOGRR282 VRT capability requirements.
- ERCOT will develop SOL/IROL Monitoring and Mitigation Plans for both groups.

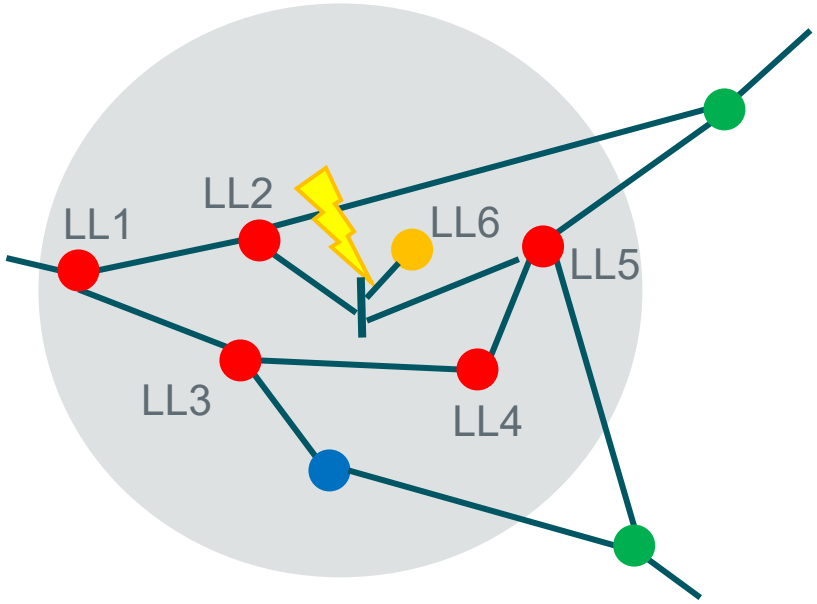
		LL Trip Group 1	LL Trip Group 2
Total Tripped (MW)		5957	5791
Total Approved Capacity (MW)		6684	6510
Total Approved Capacity (MW) in Weather Zones	*North*	*100*	*0*
	North Central	*6384*	*6510*
	West	*200*	*0*

LL Trip Group 3 & 4 in WTX (New identified)

- Two LL groups have been identified in West Texas, with total potential tripping exceeding 3,200 MW.
- All LLs within these groups do not meet NOGRR282 VRT capability requirements.
- ERCOT will develop SOL/IROL Monitoring and Mitigation Plans for both groups.

		LL Trip Group 3	LL Trip Group 4
Total Tripped (MW)		5438	5914
Total Approved Capacity (MW)		5760	6141
Total Approved Capacity (MW) in Weather Zones	*Far West*	*3672*	*3178*
	West	*1888*	*1688*
	North	*200*	*1275*

Impact and consideration of consequential trip of VRT capable LL



- Location of the fault
- Area affected by voltage dip resulting from the fault
- Load located outside the area of voltage dip
- Load located inside the area of voltage dip without VRT capability – tripped
- Load located inside the area of voltage dip with VRT capability – stay connected
- Load located inside the area of voltage dip with VRT capability – consequentially tripped

What if the VRT-capable load (LL6) trips as a consequential load loss and the total tripping amount exceeds 3200 MW? (Preliminary)

Example:

- If LL6 < 1000MW (meeting PG 9.2.5(3))
  - Trip Group: LL1 – LL5
  - Limit (MW): 3200 - LL6_MW
- If LL6 >= 1000MW
  - Trip Group: LL1 – LL6
  - Limit (MW): 3200

Timeline for Ongoing and Future VRT & QSA

- All LLs have been required to complete QSA since Feb. 1, 2026.
- TSPs must request LLs for inclusion in a QSA.
- The LL VRT assessment was merged into QSA from May 1, 2026, following the same timeline.
- Ongoing QSA covers LLs scheduled for Initial Energization in Q4 2026, considering their LCP (Load Commission Plan)

Large Load Initial Energization Date	Last Day for a TSP to meet prerequisites	Completion of Assessment
Upcoming Oct., Nov., Dec. (Q4) 2026	Prior May 1, 2026 (QSA prerequisites)	July 31, 2026
Upcoming Jan., Feb., Mar. (Q1) 2027	Prior August 1, 2026 (QSA prerequisites)	Oct. 31, 2026

Thank you!

Questions/Comments?

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