26RPG005
Denton Area Transmission Improvements

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Project Overview

- Tier 1 Project in Denton County Requiring CCN
- Estimated Cost $222 Million
- New 345kV Substations and Line, New 138kV Lines
- Estimated In-service Date Summer 2030

Background

- DME Customer Loads (409MW Summer Peak in 2024)
  2.65% average annual growth
- DME Meter Growth (71815 meters in 2026)
  5% annual growth
- Datacenter Loads
  - 297MW Approved Load (Online)
  - 114MW Additional Load with Signed Interconnection Agreements
- Overloads
  - 345kV Auto Overloads (@ Bus 988) and Several 138kV Line Overloads
  - Autos shown in 2020 RTP – DME increased the nameplate rating by Engineering Study

Project Need

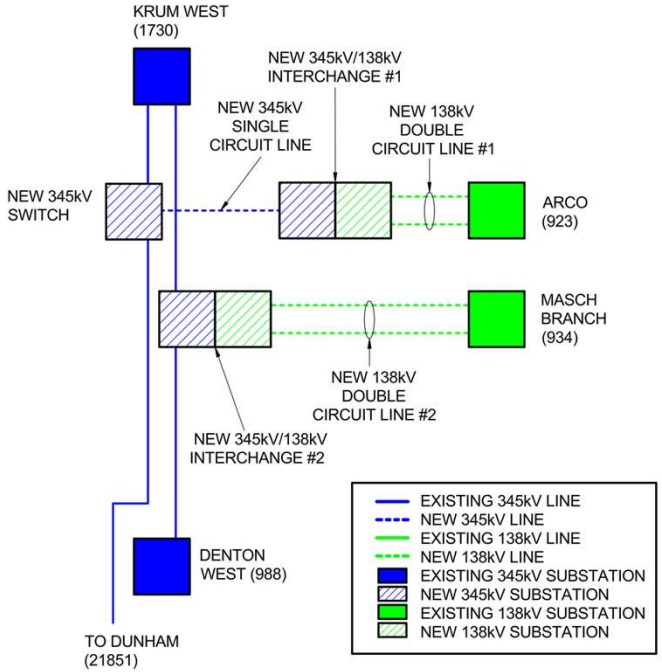
Reliability Issues Seen Under NERC TPL-001-5.1 and ERCOT Planning Criteria in Denton Area

NERC Contingency Category	Thermal Overloads 2028 SP	Thermal Overloads 2031 SP	Thermal Overloads 2031 SP with Large Load Sensitivity
P0: N-0	None	None	None
P1, P2-1, P7: N-1	2	2	8
P3[1]: G-1+N-1	0	1	1
P6-2[2]: X-1+N-1	0	1	2

1 Only counted the lines that are not P1/P7 overloaded but P3 (G-1 + N-1) overloaded
2 Only counted the lines that are not P1/P7 overloaded but P6-2 (X-1 + N-1) overloaded

Project Scope

- 7 Options Considered (Only the Proposed Option Resolves All Overloads)
- New 345kV Switch
- (2) New 345kV Interchanges
- New 345kV Line ~12 Miles
- (2) New 138kV Double Circuit Lines ~8 Miles Total



Project Results

Table 5-14: Reliability Issues Seen in Denton Facilities after Option 7 Improvements

NERC Contingency Category	Thermal Overloads 2028 SP	Thermal Overloads 2031 SP	Thermal Overloads 2031 SP with Large Load Sensitivity
P0: N-0	None	None	None
P1, P2-1, P7: N-1	0	0	0
P3: G-1+N-1	0	0	0
P6-2: X-1+N-1	0	1	0

Additionally, Per Section 4.1.1.8 of the ERCOT Transmission Planning Criteria, DME analyzed off-peak system conditions for maintenance outage reliability criteria (P1+P1, P1+P7, P7+P7). No violations were seen with the Option 7 improvements for the maintenance outages.

Questions