

# Overview of Muscovy and Voss Lake 345/138 kV Project

ERCOT RPG Meeting

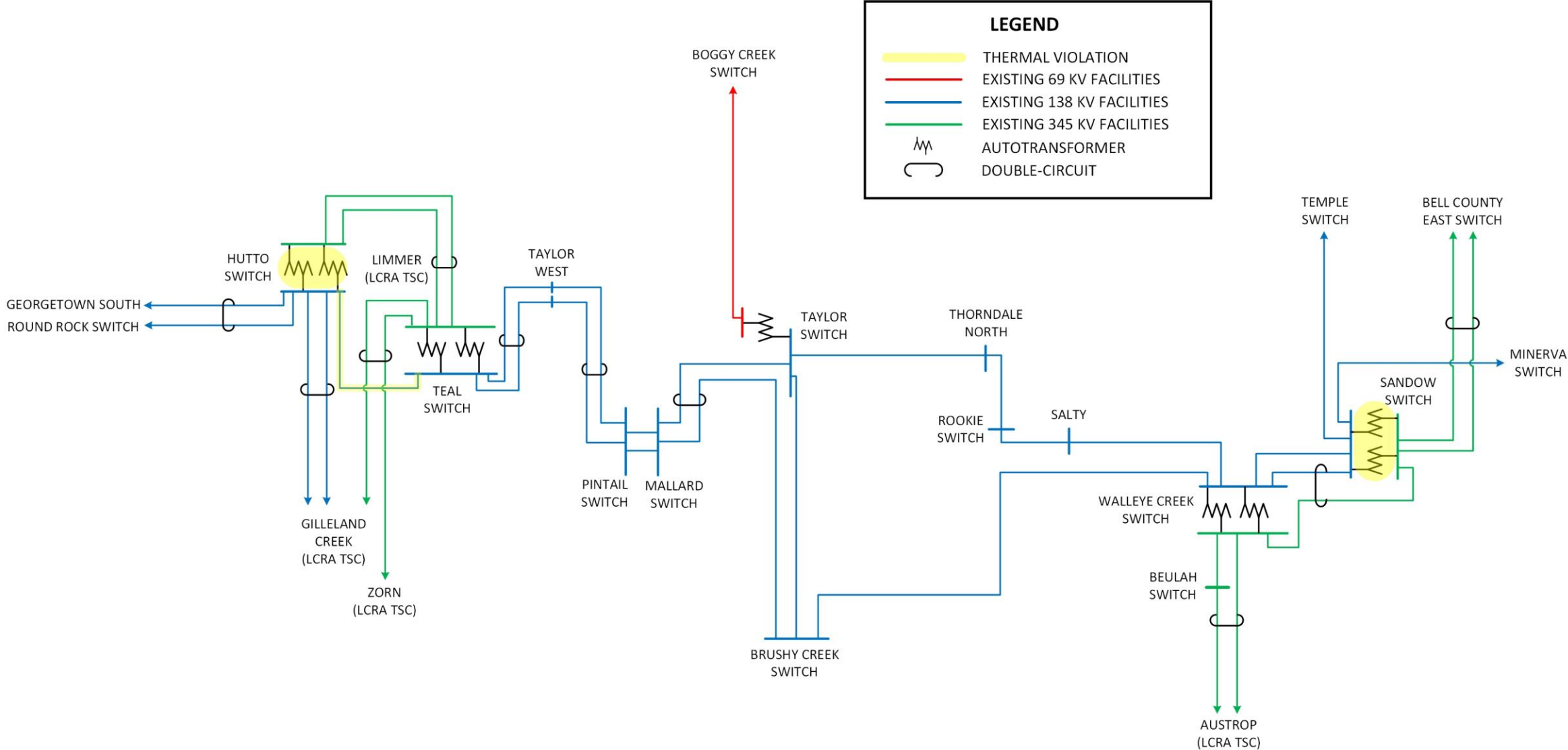
05/20/2025

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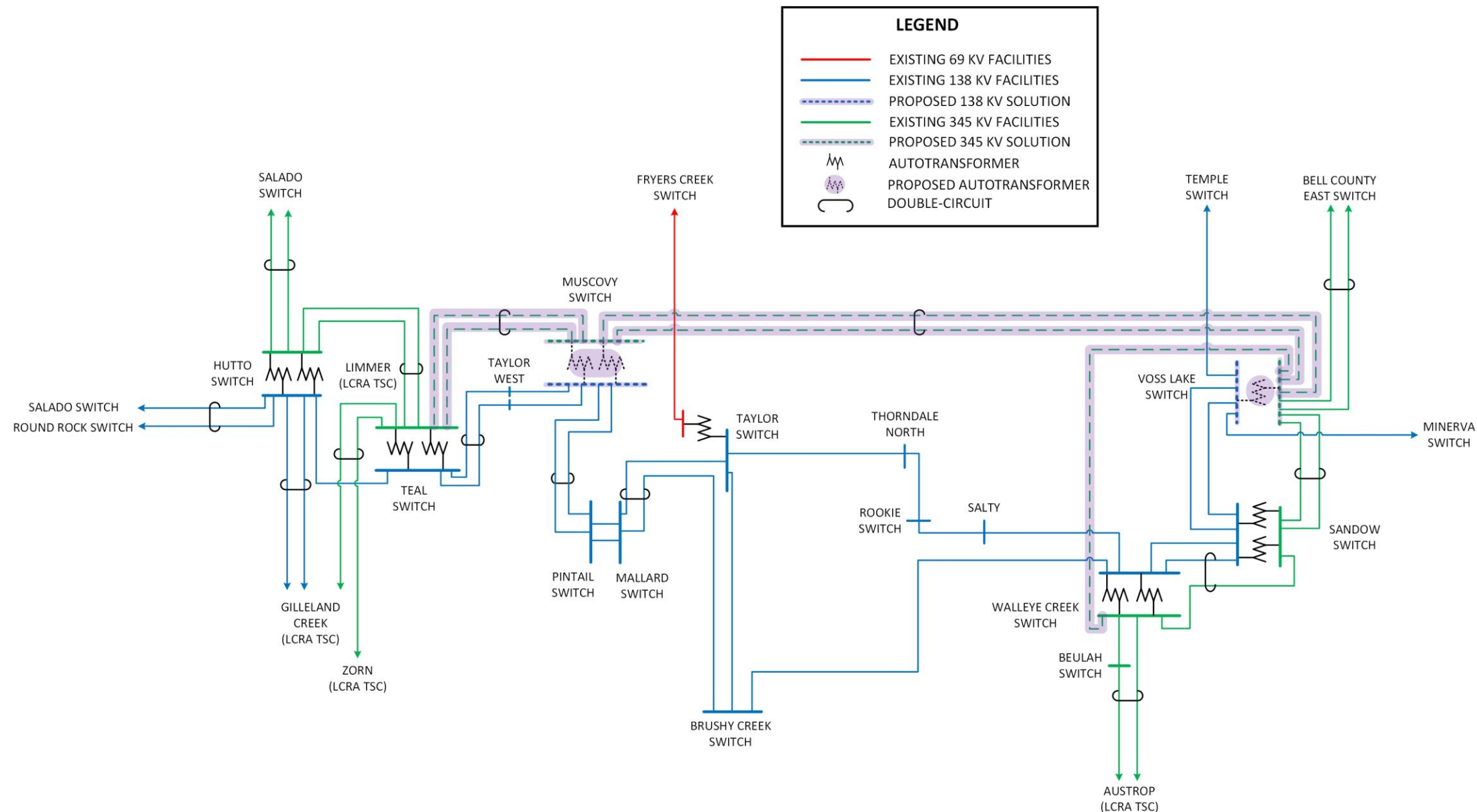
# Project Overview

- Tier-1 Project in the Williamson and Milam Counties
- Resolves identified thermal violations, provides additional 345 kV sources for the area, further networks the area's transmission facilities, and enhances system reliability
- Cost Estimate: \$381.83M (Combined Oncor and LCRA TSC)
- 3 new 345/138 kV autotransformers
- 1 new 110.4 Mvar capacitor bank
- 29 miles of new 345 kV double-circuit transmission lines
- 2 miles of new 345 kV transmission lines (double-circuit structures with one circuit installed initially)

# Post-Contingency Thermal Violations



# Proposed Project One-Line



# Recommendation



- Oncor will:
  - Establish the new Muscovy 345/138 kV Switch approximately 3.3 miles east of the co-located 345 kV Limmer Substation (LCRA TSC) and 138 kV Teal Switch (Oncor) using ten 345 kV breakers and twelve 138 kV breakers in a breaker-and-a-half arrangement
    - Install 2 – 345/138 kV autotransformers
    - Install 1 – 110.4 Mvar capacitor bank
  - Establish the new Voss Lake 345/138 kV Switch approximately 1.9 miles north of the Sandow Switch using ten 345 kV breakers and nine 138 kV breakers in a breaker-and-a-half arrangement
    - Install 1 – 345/138 kV autotransformer
  - Construct a new, 25-mile 345 kV double-circuit transmission line from Muscovy Switch to Voss Lake Switch using a conductor rated 5000 A or greater (2987 MVA)
  - Construct a new, 2-mile 345 kV transmission line from Voss Lake Switch to Walleye Creek Switch using a conductor rated 5000 A or greater (2987 MVA)
- Oncor and LCRA TSC will:
  - Construct a new, 4-mile 345 kV double-circuit transmission line from Limmer Substation to Muscovy Switch using a conductor rated 5000 A or greater (2987 MVA)



# Questions?

