



# Reliability Analysis Update

Sub Regional RTEP Committee - PJM West

April 16, 2021

# First Read

## Baseline Reliability Projects



# ComEd Transmission Zone: Baseline Waukegan 138kV Substation

**Process Stage:** First Review

**Criteria:** ComEd FERC 715 Stability Criteria 4.3.2

**Additional Benefits:** N/A

**Assumption Reference:** 2023 RTEP assumption

**Model Used for Analysis:** 2023 RTEP cases

**Proposal Window Exclusion:** Below 200 kV

**Problem Statement:**

**Waukegan 138kV Substation:**

Mitigate existing instabilities at 138kV STA16 Waukegan for close-in three-phase faults with breaker failure. ComEd has been using out-step-relay as a temporary solution. A permanent solution is needed.

**Proposed Solution:**

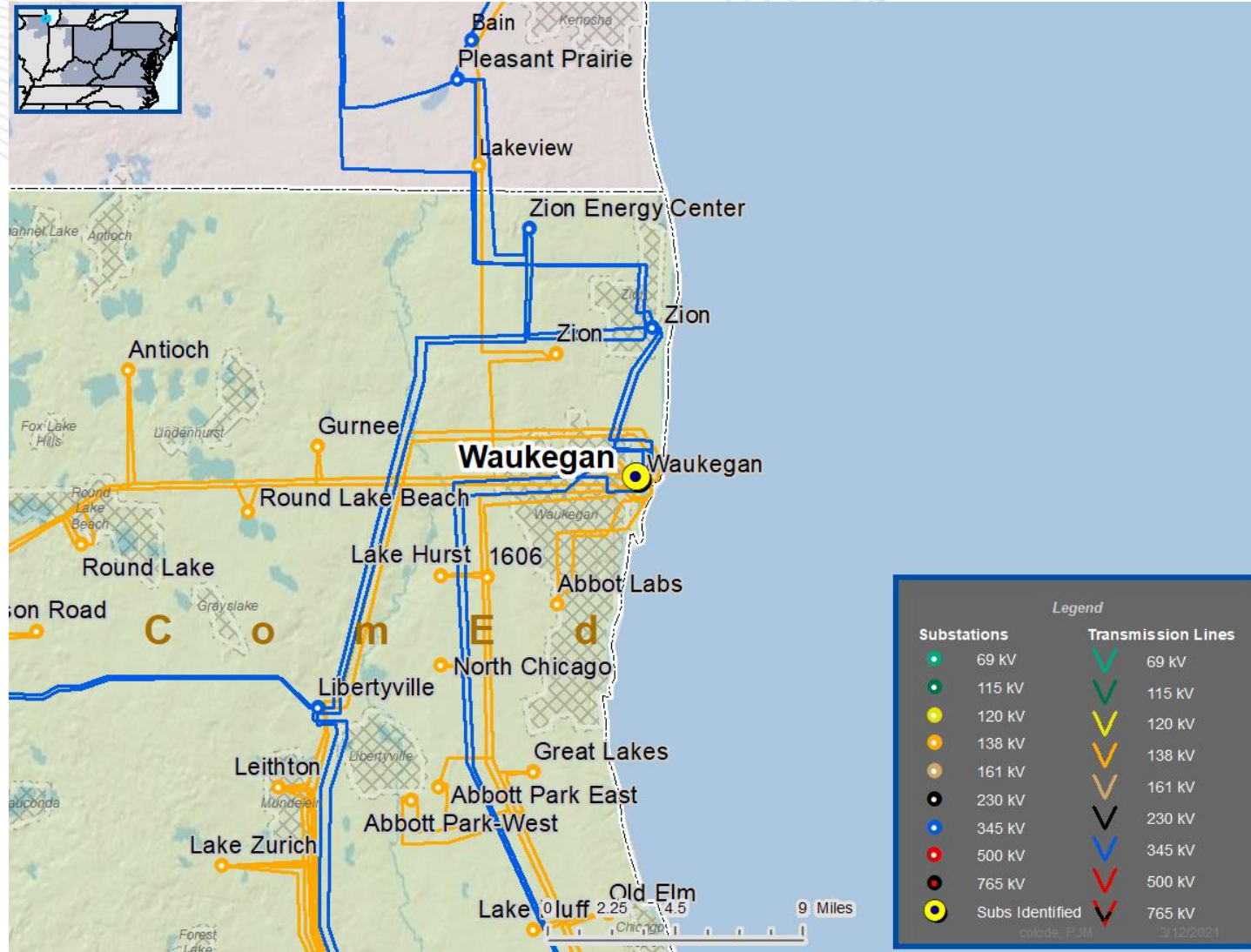
Modify backup relay clearing times at the 138kV STA16 Waukegan station.

**Estimated Cost:** \$0.255 M

**Alternatives:** N/A

**Required In-Service:** 6/1/2023

**Projected In-Service:** 6/1/2023







# Dayton Transmission Zone: Baseline Greene 138kV Breaker "GJ-138C" Replacement

**Process Stage:** First Read

**Criteria:** Over Duty Breaker

**Assumption Reference:** 2025 RTEP assumption

**Model Used for Analysis:** 2025 short circuit model

**Proposal Window Exclusion:** Below 200kV

**Problem Statement:**

In 2025 RTEP short circuit model, One (1) Greene 138kV breaker is over duty: "GJ-138C"

**Existing Facility Rating:** 40kA interrupting rating

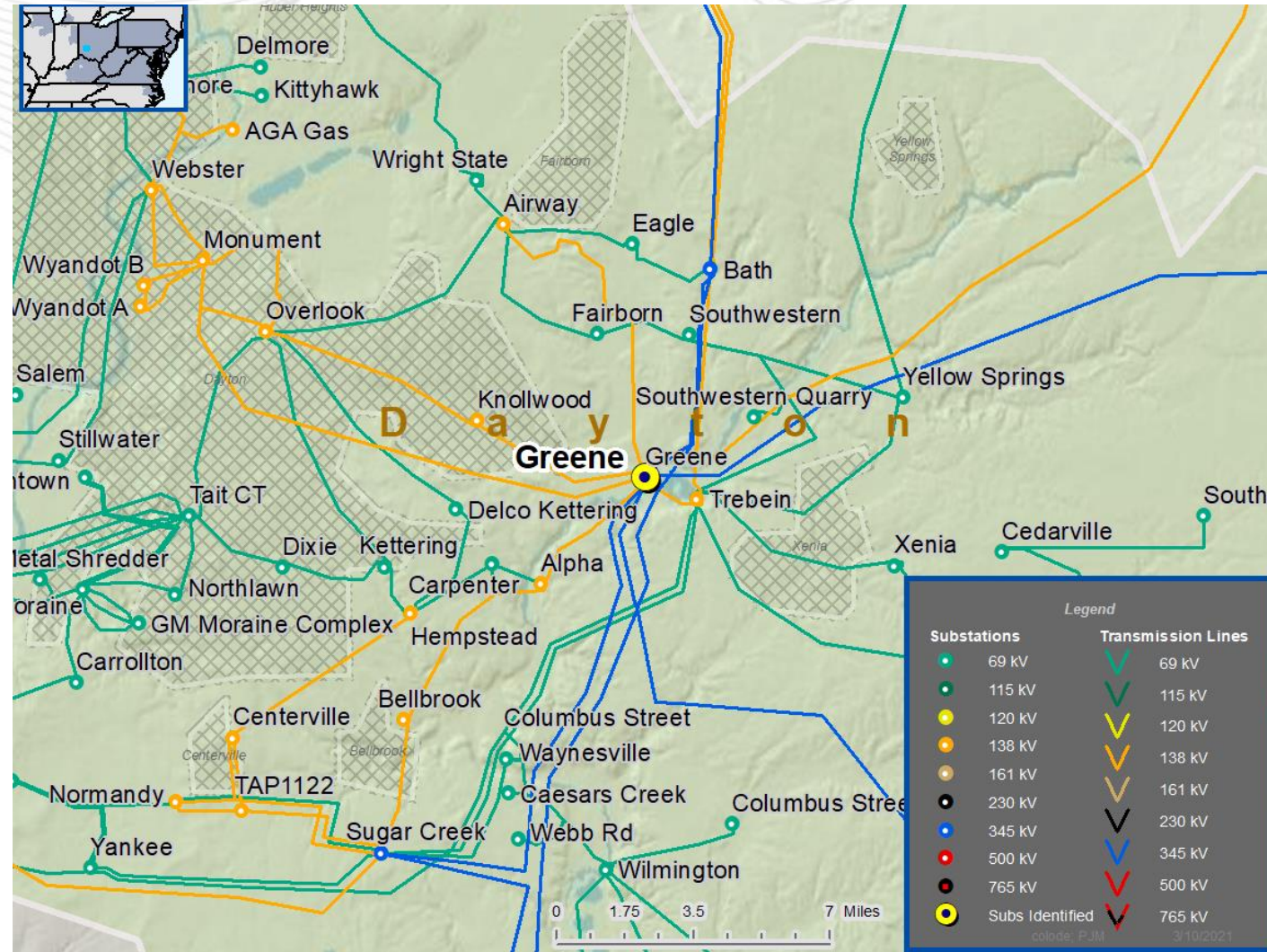
**Proposed Solution:**

Replace the one (1) Greene 138kV breaker with 63kA breaker: "GJ-138C"

**Estimated Cost:** \$0.28M

**Required In-Service:** 6/1/2025

**Projected In-Service:** 6/1/2022



# Questions?



- V1 – 4/12/2021 – Original slides posted