



# Reliability Analysis Update

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PJM Transmission Planning

Transmission Expansion Advisory Committee  
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- 2023 Window 2 updates
- 2024 Window 1 updates
- 2023 Window 1 – Recommended Solutions (Second Read)
- Cancellations



# 2023 RTEP Window 2 Updates

## Baseline Reliability Projects

- PJM will open a 30 day window, 2023 window 2, which would open on or before March 12, 2024.
  - AEP forecasted load growth in the Columbus, Ohio area.
  - Thermal issues in PSEG around Hinchmans area – require urgent action
  - 500kV line #588 Fentress – Yadkin End of Life (EOL) in Dominion
- Shortened window Immediate Need for project
- 2022 Window 3 selected solutions are included in the base cases
- AEP supplemental projects related to the data center load in the load forecast are included in the base cases
- Stakeholders are requested to ensure they are properly registered for the RTEP window which will allow them to participate in this additional 30 day window



# 2024 RTEP Window 1 Updates

## Baseline Reliability Projects



# 2024 RTEP Window 1 – Progress and Timeline update

- 2029 machine list and AVG EEFORd are posted (As Information Only Item in March TEAC)
- Current schedule
  - Initial 2029 models on March 8
  - Internal Model review from March 11<sup>th</sup> to March 31<sup>st</sup>
  - Preliminary model posting and updates to models on as needed basis - starting April 2024
  - Post preliminary PJM analysis releases starting the 3<sup>rd</sup> week of April
  - Requesting FERC Form 715 analysis results from transmission owners by the 3<sup>rd</sup> week of May
  - Targeting open 2024 RTEP proposal window 1 in the first week of July

# Recommended Solutions – 2023 Window 1

## Second Read

### Baseline Reliability Projects



# ComEd Transmission Zone: Baseline 2023 RTEP Window 1 Cluster 2

**Process Stage:** Recommended Solution – Second Read

**Criteria:** Summer Generator Deliverability

**Assumption Reference:** 2023 RTEP assumptions

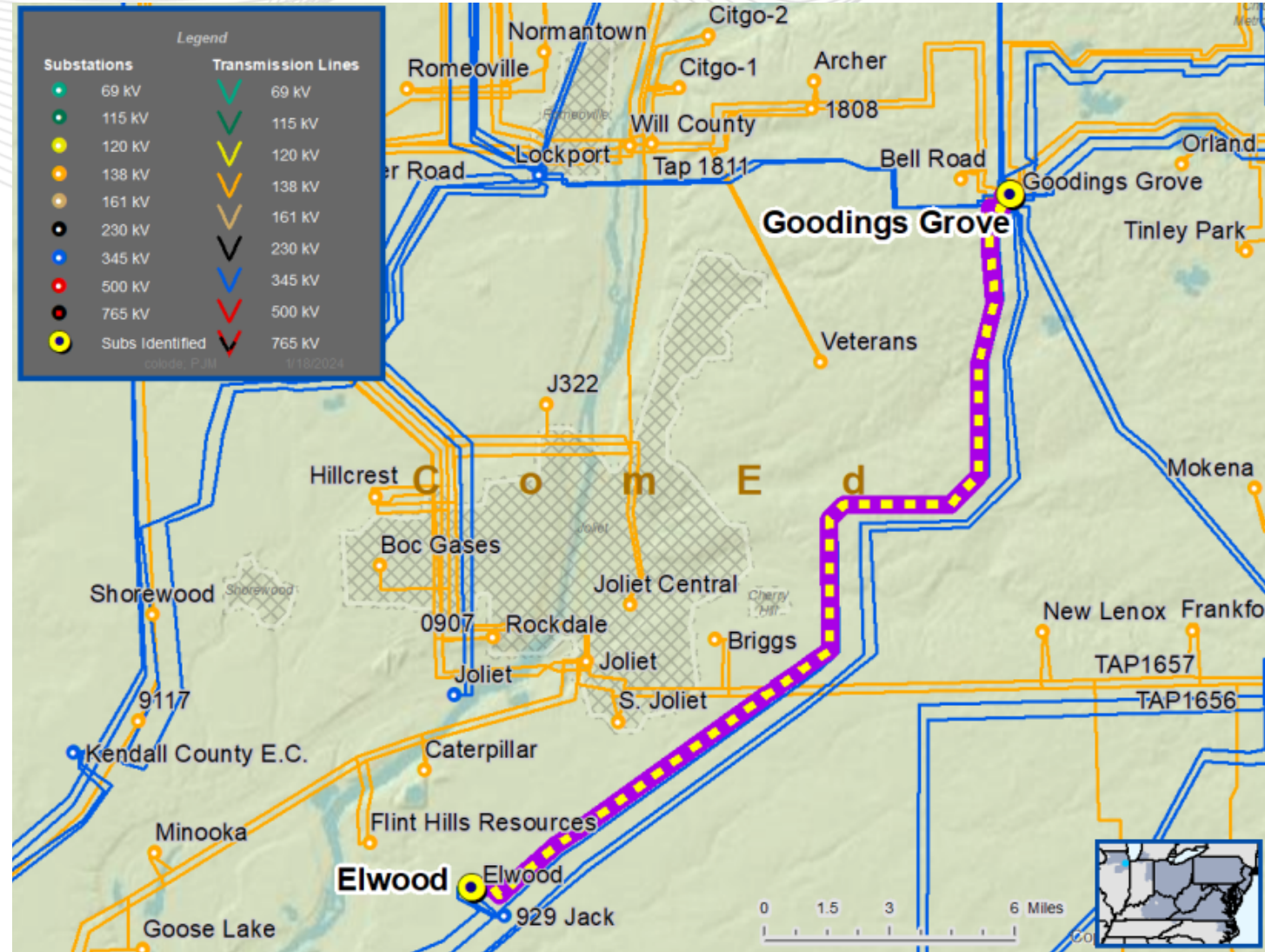
**Model Used for Analysis:** 2028 RTEP cases

**Proposal Window Exclusion:** None

**Problem Statement:**

2023W1-GD-S554, 2023W1-GD-S1259, 2023W1-GD-S571,  
2023W1-GD-S563, 2023W1-GD-S1260, 2023W1-GD-S570,  
2023W1-GD-S190, 2023W1-GD-S548

In 2028 RTEP Summer case, the Elwood-Goodings Grove 345 kV double circuit is overloaded in the base case and for N-2 outages.







# ComEd Transmission Zone: Baseline 2023 RTEP Window 1 Cluster 2

- As part of the 2023 RTEP Window #1, projects listed in the table below were proposed to address the violations in cluster 2
- 4 total proposals submitted from 2 different entities
  - 2 Greenfields
  - 2 Upgrades
- 1 proposal identified with cost containment

Proposal ID	Proposing Entity	Project Type	Upgrade Description	Upgrade Cost (\$M)
35	COMED	UPGRADE	Reconductor 18.7 miles of 345 kV lines 11620 & 11622 from Elwood to Goodings Grove with two conductor bundled 1033.5 ACSS conductor. Modify and replace towers as necessary to accommodate the higher mechanical loads of the bundled conductor.	61.84
138	COMED	GREENFIELD	Install two new 345 kV circuits from Elwood to Joliet for a distance of approximately 8 miles.	97.50
663	CNTLTM	GREENFIELD	The Elwood - Joliet 345kV transmission project consists of an approximately 4 mile double circuit 345kV transmission line from the Elwood Substation to the Joliet Substation.	29.37
937	COMED	UPGRADE	Apply conductor coating to lines 11620 & 11622 from Elwood to Goodings Grove. The coating increases emissivity and reduces absorptivity of the conductor, allowing for increased ratings. This technology was presented at PJM's Emerging Technology Forum on 3/17/21.	8.52



# ComEd Transmission Zone: Baseline 2023 RTEP Window 1 Cluster 2

## Proposed Solution: Proposal No. 2023-W1-35

- Reconductor 345 kV lines 11620 & 11622 from Elwood to Goodings Grove. **(b3812.1)**
- Upgrade Goodings Grove 345 kV circuit breakers, disconnects, and associated equipment. **(b3812.2)**
- Upgrade station conductor at Elwood 345 kV. **(b3812.3)**
- Adjust reclosing cycle on for Goodings Grove 345 kV circuit breaker '116 9806' to eliminate the reclosing derating. **(b3812.4)**

Estimated Cost: \$61.84 M

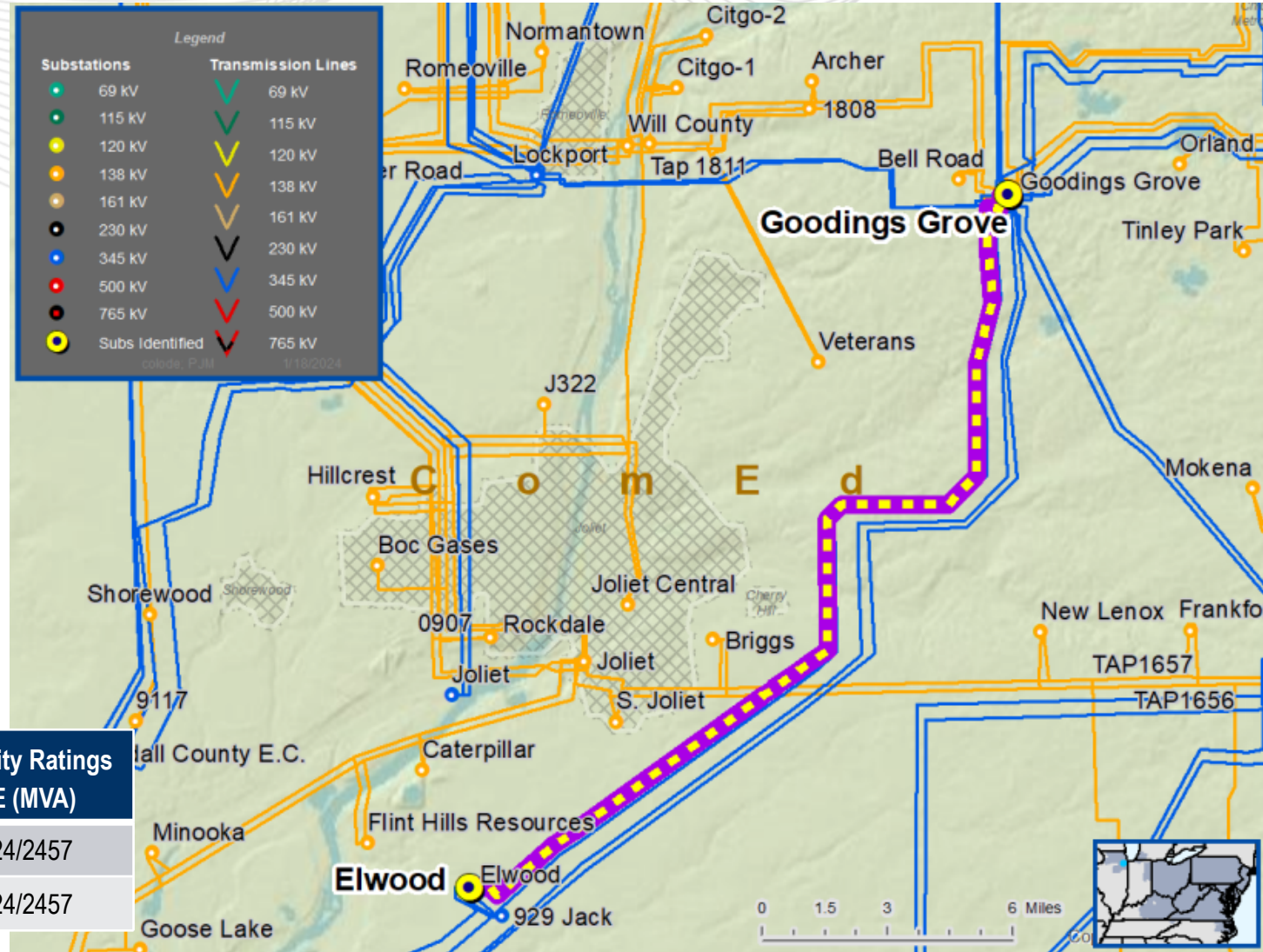
Required IS Date: 6/1/2028

Projected IS Date: 6/1/2028

Previously Presented: 2/6/2024

## Facility Ratings:

Branch	Existing Facility Ratings SN/SE/WN/WE (MVA)	Preliminary Facility Ratings SN/SE/WN/WE (MVA)
ELWOOD;B-GOODINGS;4B 345 kV	1334/1528/1590/1781	1961/2112/2324/2457
ELWOOD;R-GOODINGS;2R 345 kV	1334/1528/1590/1781	1961/2112/2324/2457

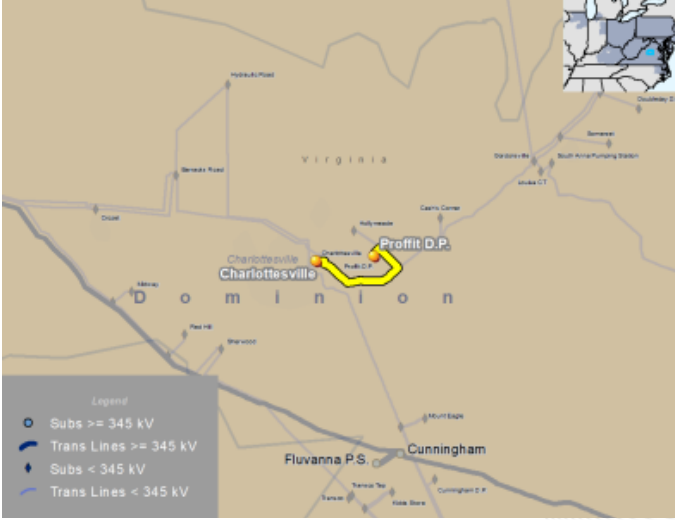


# Baseline Upgrade Cancellations

# Dominion Transmission Zone: Baseline

## B3702: Charlottesville-Proffit 230 kV

- As result of the 2022W3 approved solution, the baseline project b3702, series reactor on the Charlottesville-Proffit 230 kV line, is being canceled:
  - B3702 was approved as part of the 2020/21 Market Efficiency Window to address congestion on the Charlottesville to Proffit 230 kV line.
  - Overlap with selected solution 2022-W3-967 from the 2022 RTEP Window 3 creates an incompatibility with the proposed rebuild of 230kV Line #2054.
  - Dominion already purchased the reactor and will re-purpose it as an interim solution during the wreck and rebuild of 230kV Line #2114.
- PJM staff will continue to analyze the congestion patterns in the area and share findings at upcoming TEAC meetings.



**Project ID: 202021\_651**

Proposed Solution:  
Install series reactor on the Charlottesville – Proffit Rd. 230 kV line.

Project Type: Upgrade  
 kV Level: 230 kV  
 In-Service Cost (\$M): \$11.38  
 In-Service Year: 2023  
 B/C Ratio = 16.05  
 Target Zone: DOM

ME Constraints:  
Charlottesville to Proffit Rd Del Pt 230 kV

Notes: [Redacted Public Proposal 651](#)

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## Reliability Analysis Update



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Version No.	Date	Description
1	Feb 29 <sup>th</sup> , 2024	<ul style="list-style-type: none"><li>• Original slides posted</li></ul>

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