Reliability Analysis Update

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Sub Regional RTEP Committee - PJM South

November 12, 2026

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DOM Transmission Zone: Baseline
Bell Avenue 115kV

Process Stage: First Review

Criteria: Summer & Light Load Individual Plant Deliverability (IPD)

Assumption Reference: 2031 RTEP assumption

Model Used for Analysis: 2031 RTEP Summer & Light Load Cases

Proposal Window Exclusion: Below 200 kV Exclusion

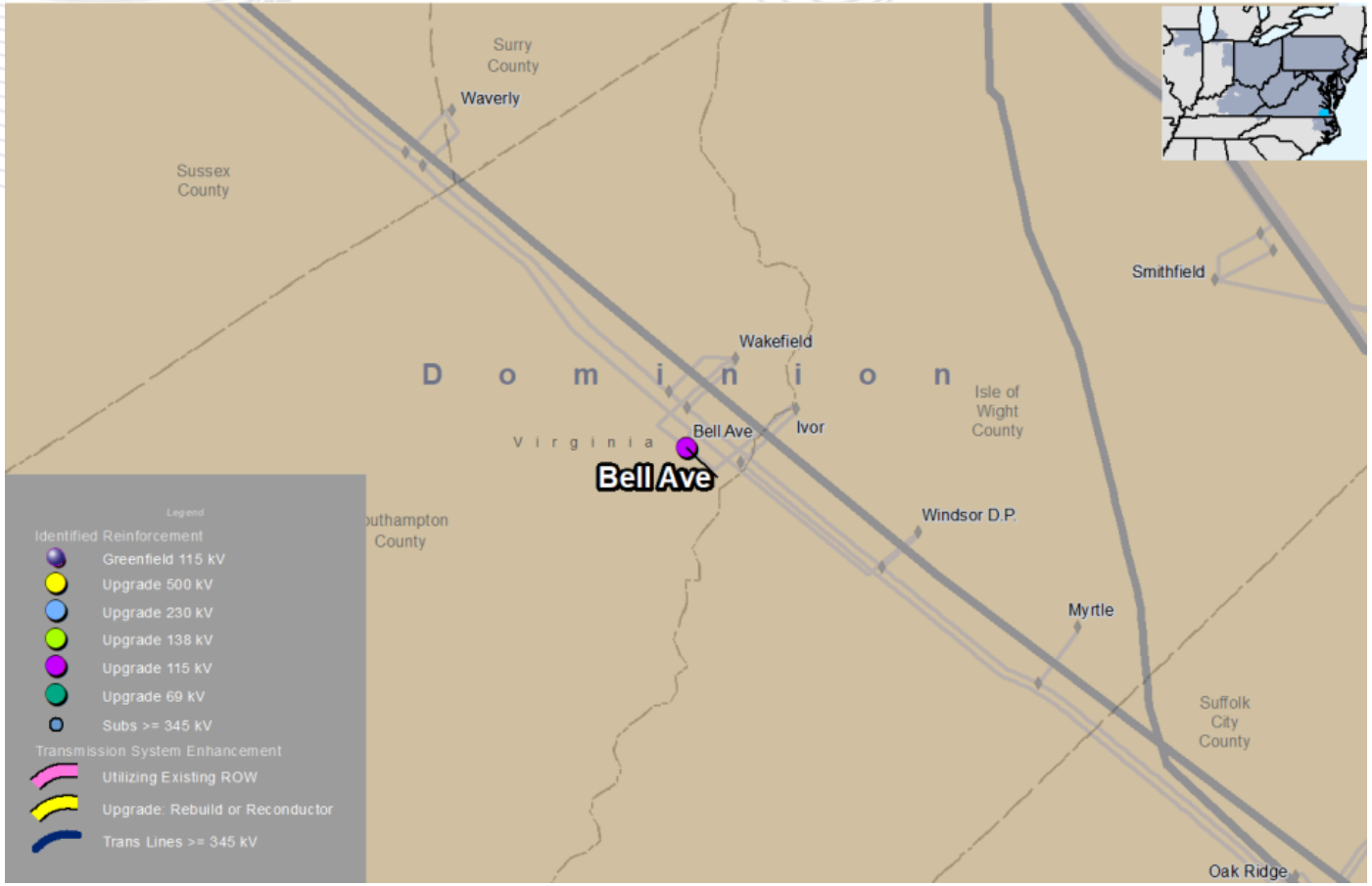
Problem Statement: Lines #23 Oak Ridge – Suffolk & #106 Bakers Pond – New Bohemia DP 115kV are overloaded for multiple contingencies.

Violations were posted as part of the 2026 Window 1:

2026-W1-IPD-S7	2026-W1-IPD-S65	2026-W1-IPD-LL16
2026-W1-IPD-S38	2026-W1-IPD-LL6	
2026-W1-IPD-S40	2026-W1-IPD-LL12	
2026-W1-IPD-S49	2026-W1-IPD-LL13	

Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
3BAKRS P – 3NEWBOHE 115 kV	114/117/144/148
3BAKRS P – AB2-161 TAP	114/117/144/148
3OAKRI23 – 3SUFFOLK	114/117/144/148



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DOM Transmission Zone: Baseline
Bell Avenue 115kV

Proposed Solution:

- Add two 115kV circuit breakers and close N.O. switches to build a four-breaker ring at Bell Ave Substation.
- The ring bus will connect all 4 lines together: Line #15, Line #1057, Line #1092 and Line #1072.

Estimated Cost: $1.86M

Alternatives:

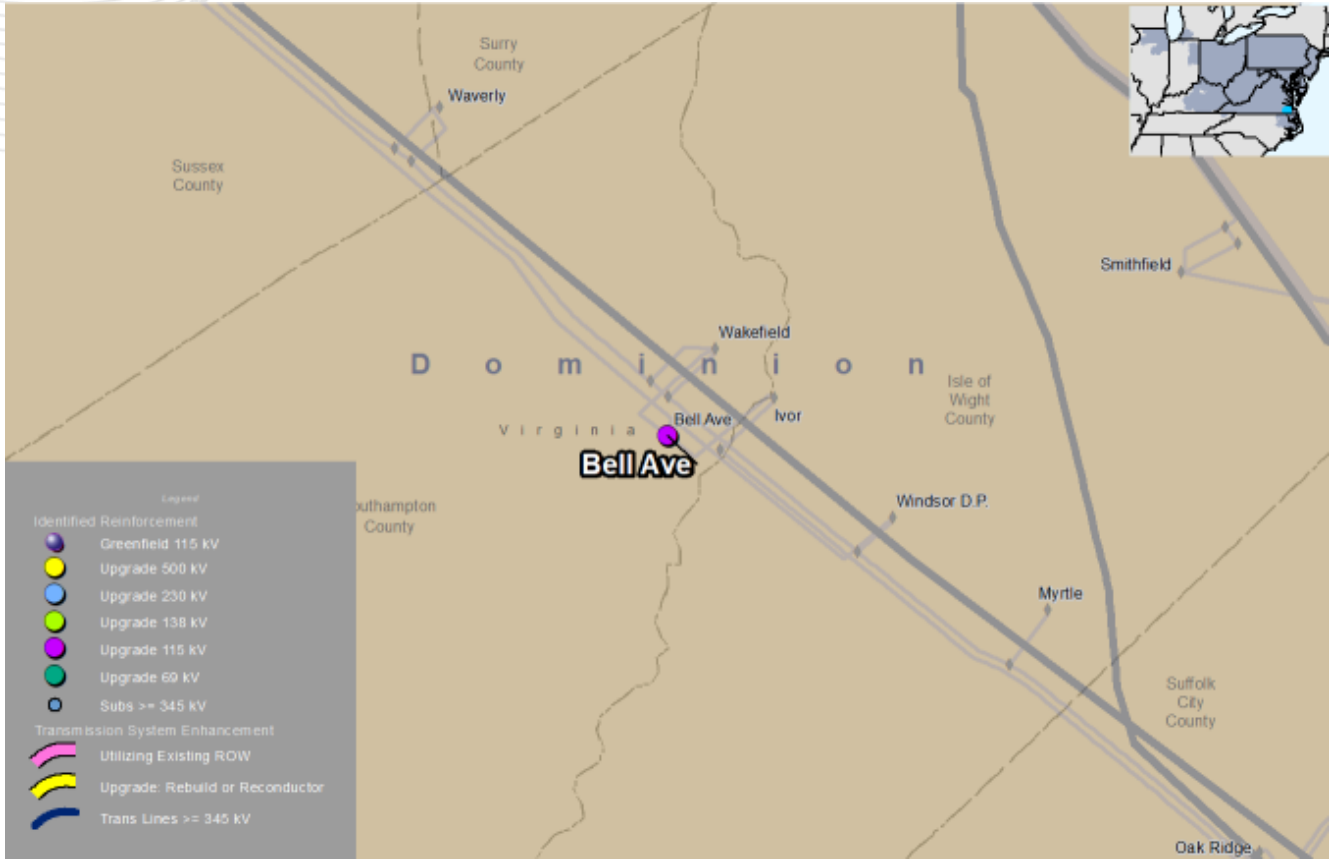
- N/A

Required IS Date:

- 6/1/2031

Projected IS Date:

- 6/1/2031



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DOM Transmission Zone: Baseline Farmville – Willis Mt 115kV

Process Stage: First Review

Criteria: Summer & Light Load Individual Plant Deliverability (IPD), Summer Generation Deliverability

Assumption Reference: 2031 RTEP assumption

Model Used for Analysis: 2031 RTEP Summer & Light Load Cases

Proposal Window Exclusion: Below 200 kV Exclusion

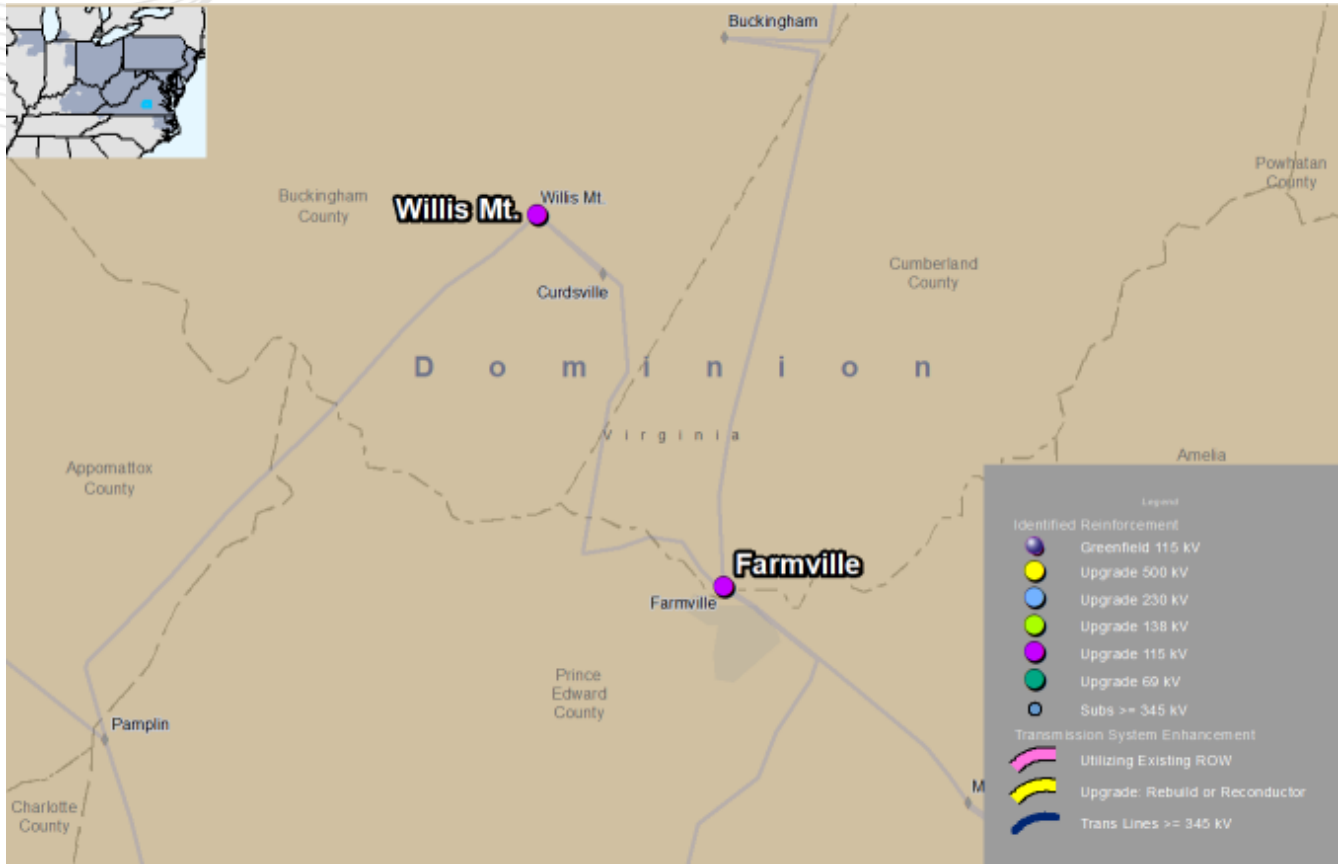
Problem Statement: Line #84 Farmville – Willis Mt 115kV is overloaded for multiple contingencies.

Violations were posted as part of the 2026 Window 1:

2026-W1-GD-S246	2026-W1-IPD-LL8
2026-W1-GD-S247	2026-W1-IPD-S32
2026-W1-GD-S248	2026-W1-IPD-S58
2026-W1-GD-S249	

Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
3FARMVIL – 3WILLIS 115 kV	198/218/250/266



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DOM Transmission Zone: Baseline Farmville – Willis Mt 115kV

Proposed Solution:

- Upgrade Line #84 Lead, and switches 8434 & 8435 to 2000A as to not limit the conductor on Line #84.

Estimated Cost: $0.4M

Preliminary Facility Rating:

Branch	SN/SE/WN/WE (MVA)
3FARMVIL – 3WILLIS 115 kV	342/352/379/390

Alternatives:

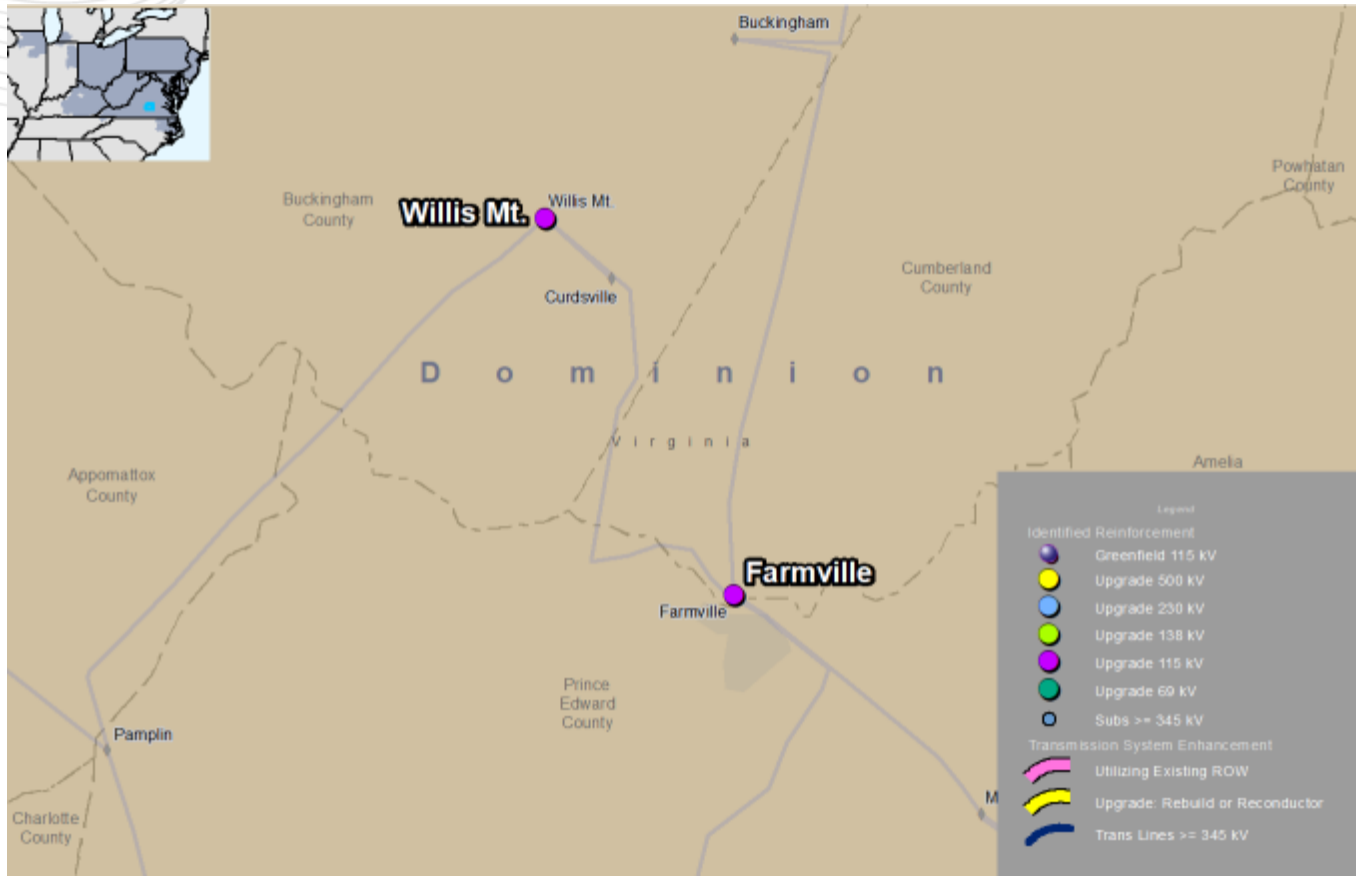
- N/A

Required IS Date:

- 6/1/2031

Projected IS Date:

- 6/1/2031



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DOM Transmission Zone: Baseline Gladys Tap 69kV

Process Stage: First Review

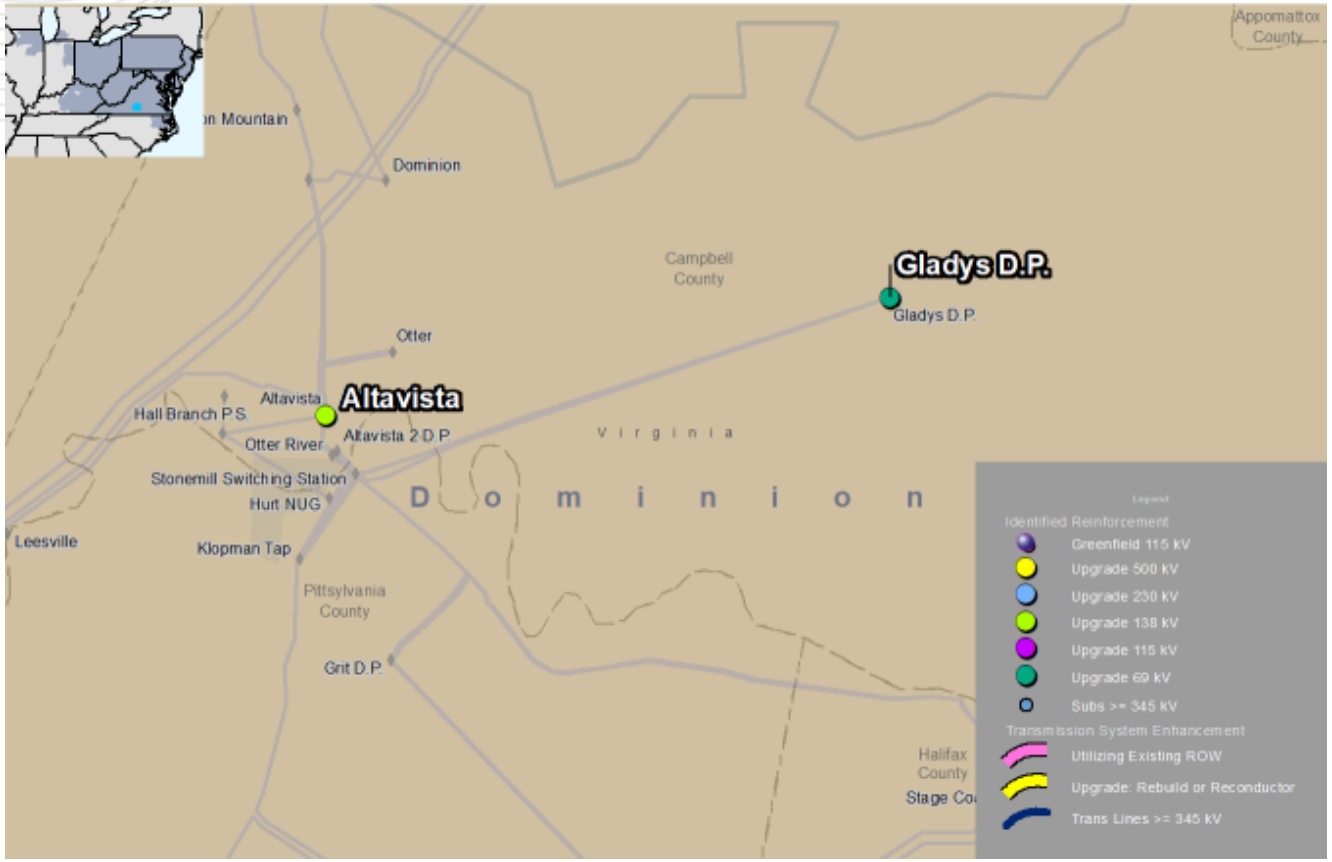
Criteria: Summer & Light Load Individual Plant Deliverability (IPD)

Assumption Reference: 2031 RTEP assumption

Model Used for Analysis: 2031 RTEP Summer & Light Load Cases

Proposal Window Exclusion: Below 200 kV Exclusion

Problem Statement: Line #35 Altavista - Gladys Tap - Stonemill - AE2-283 Tap 69kV and Altavista 138/69kV transformer #2 are overloaded for multiple contingencies.



Existing Facility Rating:

Branch	SN/SE/WN/WE (MVA)
2ALTVSTA – 2GLADYS TAP 69 kV	88/91/111/115
2GLADYS TAP – 3STONE MILL 69 kV	66/68/83/86
2AE2-283_TAP – 3STONE MILL 69 kV	68/70/86/89
2ALTVSTA – 4ALTVSTA 138/69 kV	104/108/132/136

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DOM Transmission Zone: Baseline Gladys Tap 69kV

Proposed Solution:

- Relocate the existing tap point of Line #35 Gladys Tap to Line #31 near structure 35/307.
- Gladys Tap will now operate at 115kV since it is already built and insulated for 115kV operation.
- Upgrade radiator fans on Altavista 138/115kV transformers #3 & #4.

Estimated Cost: $1M

Preliminary Facility Rating:

Branch	SN/SE/WN/WE (MVA)
3GLADYS TAP – 3AE2-283 TAP 115 kV	114/117/144/148
3AE2-283 TAP – 3PIGEONRUN 115kV	114/117/144/148
3PIGEONRUN – 3GLADYS 115kV	114/117/144/148

Alternatives:

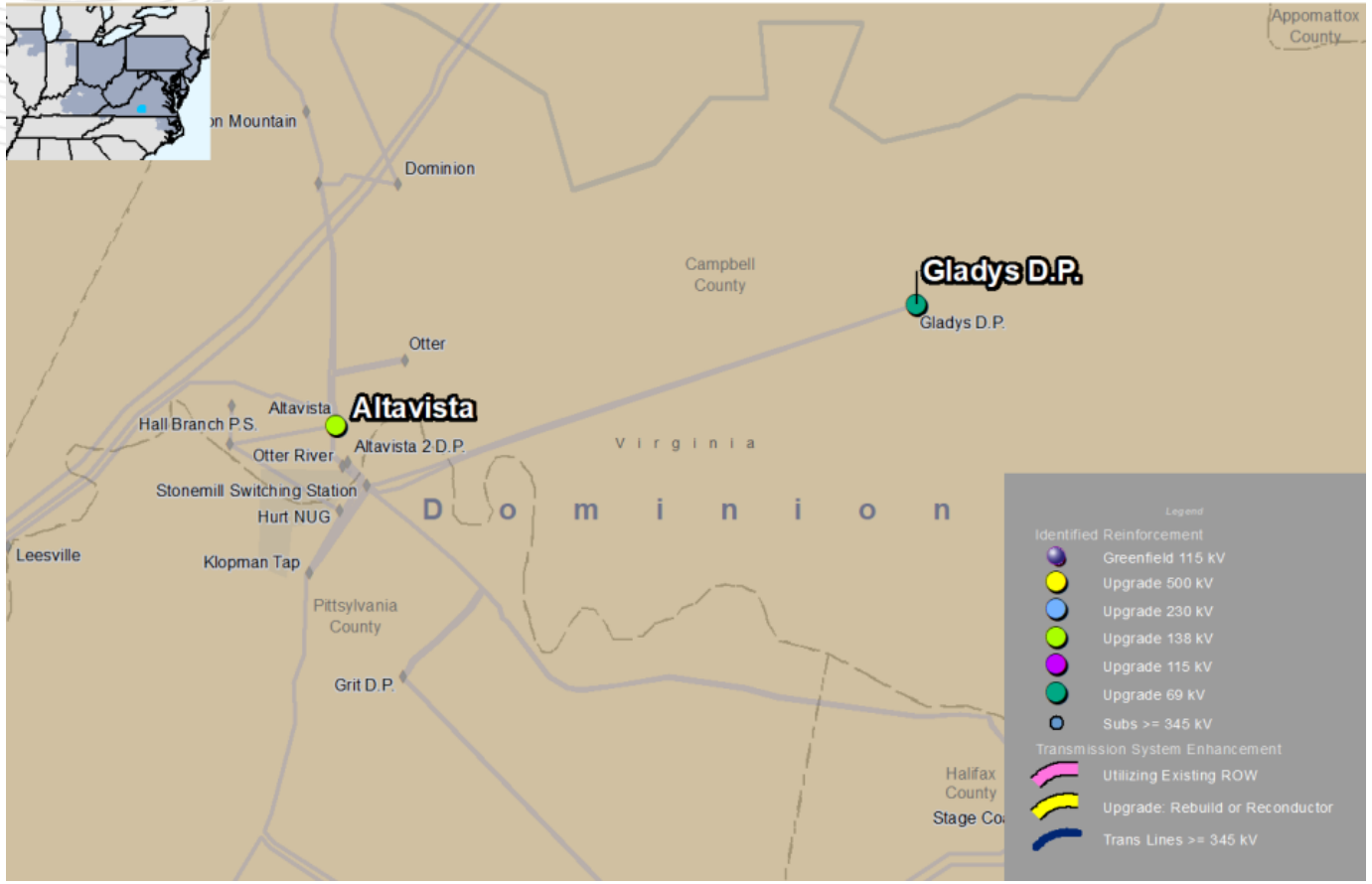
- N/A

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DOM Transmission Zone: Baseline Trowbridge 115kV

Process Stage: First Review

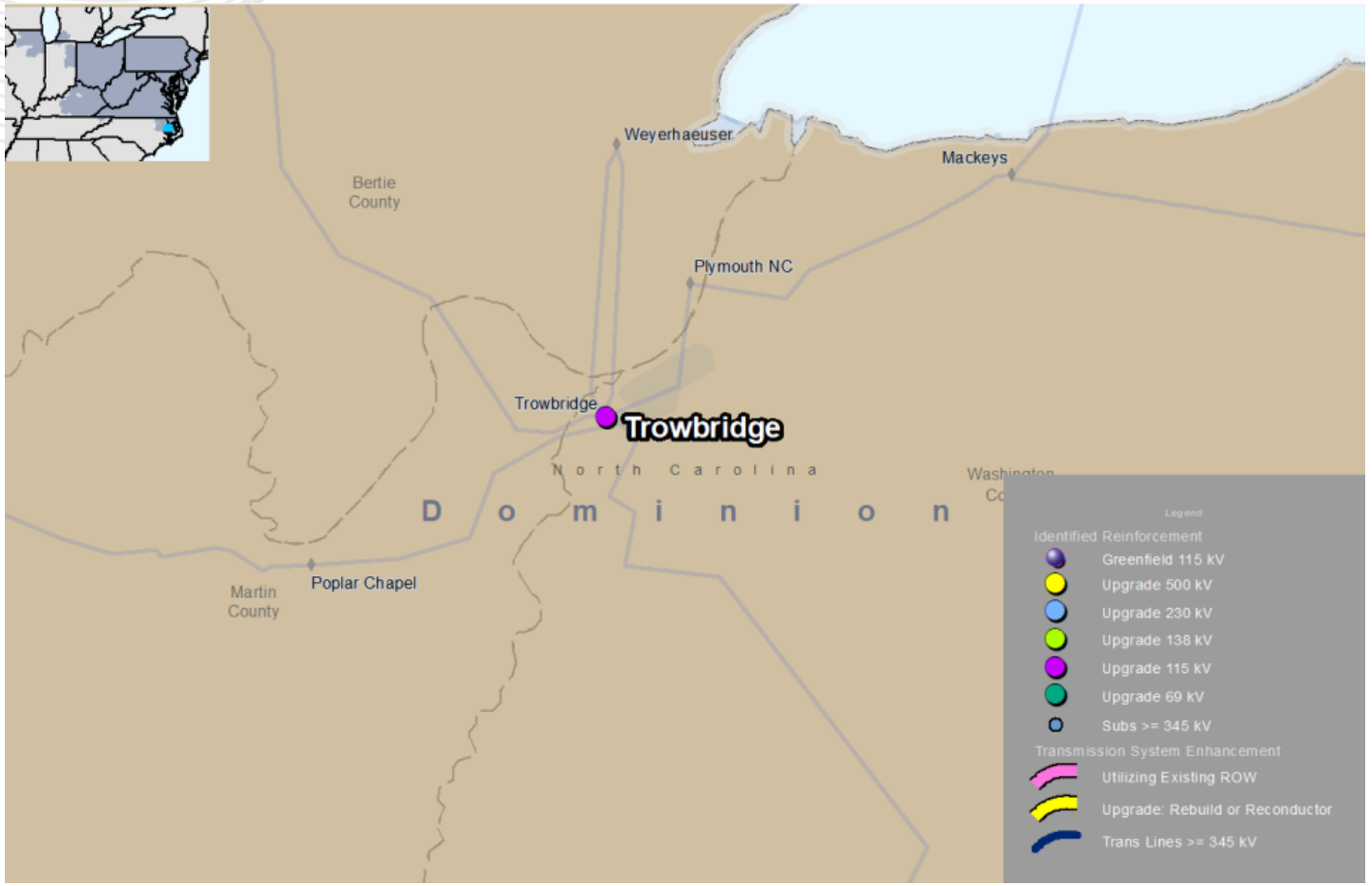
Criteria: Summer & Winter N-1-1 Voltage Drop/Magnitude

Assumption Reference: 2031 RTEP assumption

Model Used for Analysis: 2031 RTEP Summer & WinterCases

Proposal Window Exclusion: Below 200 kV Exclusion

Problem Statement: Trowbridge 115kV substation along with surrounding stations in the 115kV system experience low voltage violations under the loss of both 230/115kV transformers at Trowbridge substation.



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DOM Transmission Zone: Baseline Trowbridge 115kV

Proposed Solution:

- Install one (1) 33.6MVAR 115kV Capacitor Bank at Trowbridge 115kV Substation

Estimated Cost: $4.45M

Alternatives:

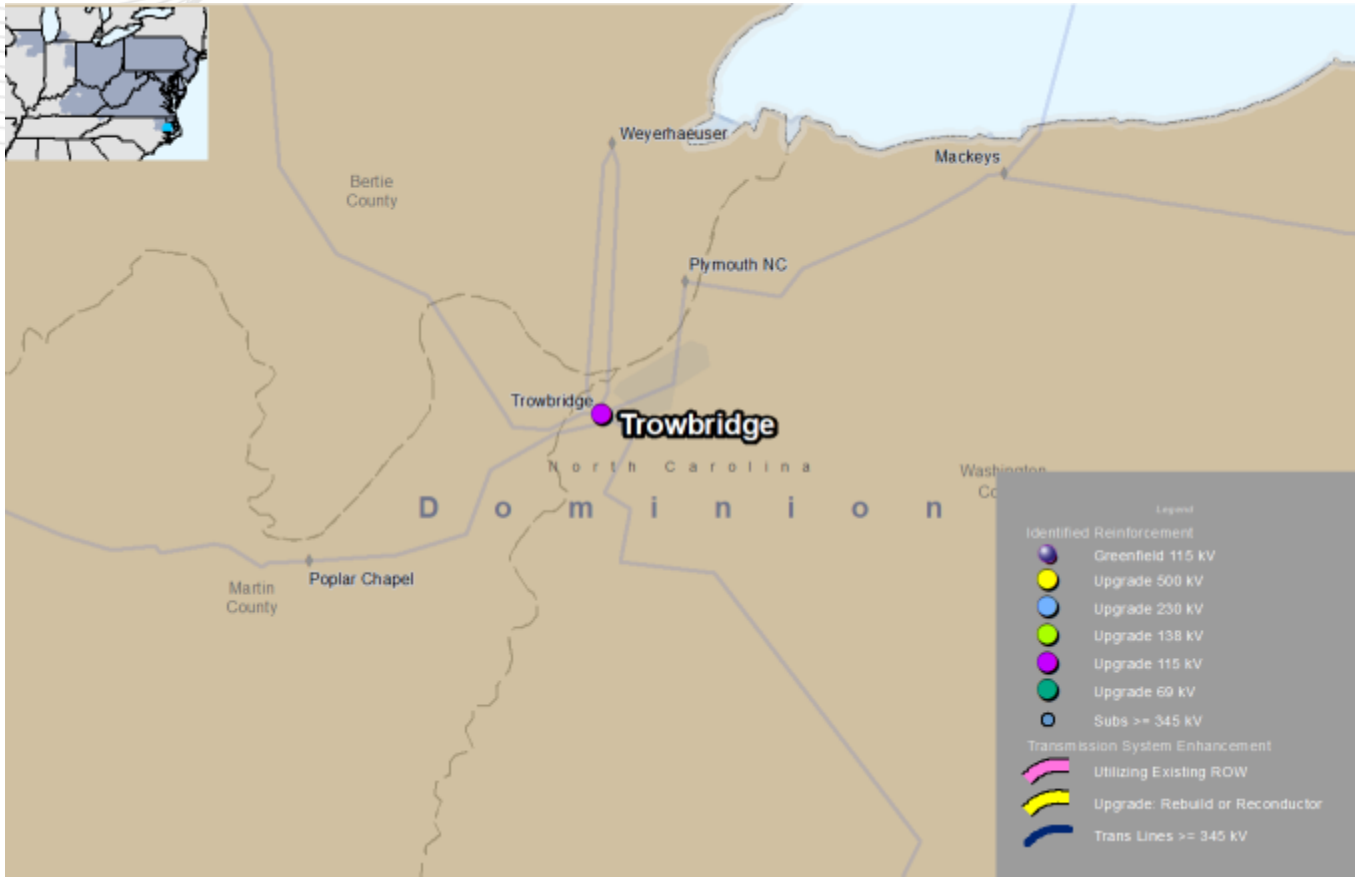
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Reliability Analysis Update



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Revision History

Version No.	Date	Description
1	November 09, 2026	• Original slides posted
2	November 10, 2026	• Updated maps
3	November 11, 2026	• Updated slides for Farmville – Willis Mt, Gladys Tap 69kV & title slide

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