



Sub Regional RTEP Committee PJM West

June 17, 2019

- The following definitions explain the basis for excluding flowgates and/or projects from the competitive planning process and designating projects to the incumbent Transmission Owner.
- Flowgates/projects excluded from competition will include the underlined language on the corresponding slide.
 - Immediate Need Exclusion: Due to the immediate need of the violation (3 years or less), the timing required for an RTEP proposal window is infeasible. As a result, the local Transmission Owner will be the Designated Entity - Operating Agreement, Schedule 6 § 1.5.8(m)
 - Below 200kV Exclusion: Due to the lower voltage level of the identified violation(s), the driver(s) for this project are excluded from the competitive proposal window process. As a result, the local Transmission Owner will be the Designated Entity - Operating Agreement, Schedule 6 § 1.5.8(n)
 - FERC 715 (TO Criteria) Exclusion: Due to the violation need of this project resulting solely from FERC 715 TO Reliability Criteria, the driver(s) for this project are excluded from the competitive proposal window process. As a result, the local Transmission Owner will be the Designated Entity - Operating Agreement, Schedule 6 § 1.5.8(o)
 - Substation Equipment Exclusion: Due to identification of the limiting element(s) as substation equipment, the driver(s) for this project are excluded from the competitive proposal window process. As a result, the local Transmission Owner will be the Designated Entity - Operating Agreement, Schedule 6 § 1.5.8(p)

First Review

Baseline Reliability Projects



APS Transmission Zone: Baseline Glen Falls 138kV Substation Breakers Upgrade

Process Stage: First Review

Criteria: Short Circuit

Assumption Reference: PJM Criteria

Model Used for Analysis: Short Circuit 2020/2023 Base cases

Proposal Window Exclusion: Immediate Need, Below 200 kV

Problem Statement:

The “Rider 50” and “No. 1 & No. 4 transf.” 138 kV breakers at Glen Falls 138 kV substation is overdutied due to generation retirement driven system upgrade b2996.

Existing Facility Rating: 5000MVA

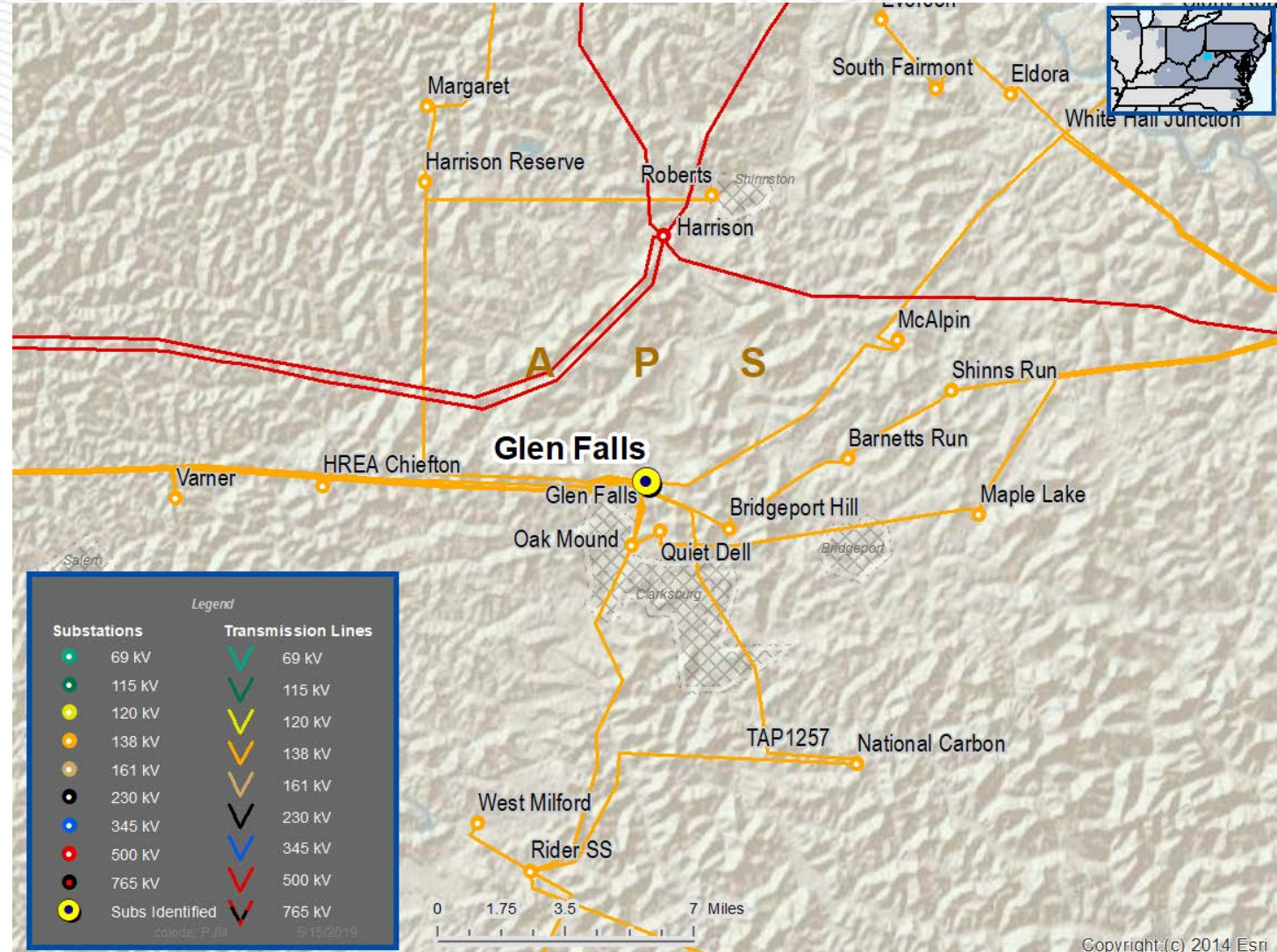
Proposed Solution (B2996.3):

Replace two 138 kV breakers (Rider 50 and #1/4 transformer breaker) at Glen Falls 138kV substation with 63kA breakers

- **Estimated Cost:** 487K

Alternatives: N/A

Required In-Service: 5/31/2020





AEP Transmission Zone: Baseline New Buffalo Area Improvements

Process Stage: First Review

Criteria: TO Criteria violation

Assumption Reference: FERC 715

Model Used for Analysis: 2022 RTEP Summer

Proposal Window Exclusion: FERC 715

Problem Statement:

For the N-1-1 loss of

- Derby – Cook Thornton 69kV and Bridgman – Pletcher 69kV
- Bridgman – Cook Thornton 69kV and Bridgman – Pletcher 69kV
- Derby – Cook Thornton 69kV and Pletcher 138/69kV TR#1
- Bridgman – Cook Thornton 69kV and Pletcher 138/69kV TR#1

the following violation occurs in the 2022 RTEP case:

- LaPorte Junction – New Buffalo 69 kV line gets loaded to 128%, 124%, 103%, 102% of its SE ratings (4/0 ACSR, 50MVA rating)

Potential Solution:

Rebuild 3.11 miles of the LaPorte Junction – New Buffalo 69 kV line with 795 ACSR

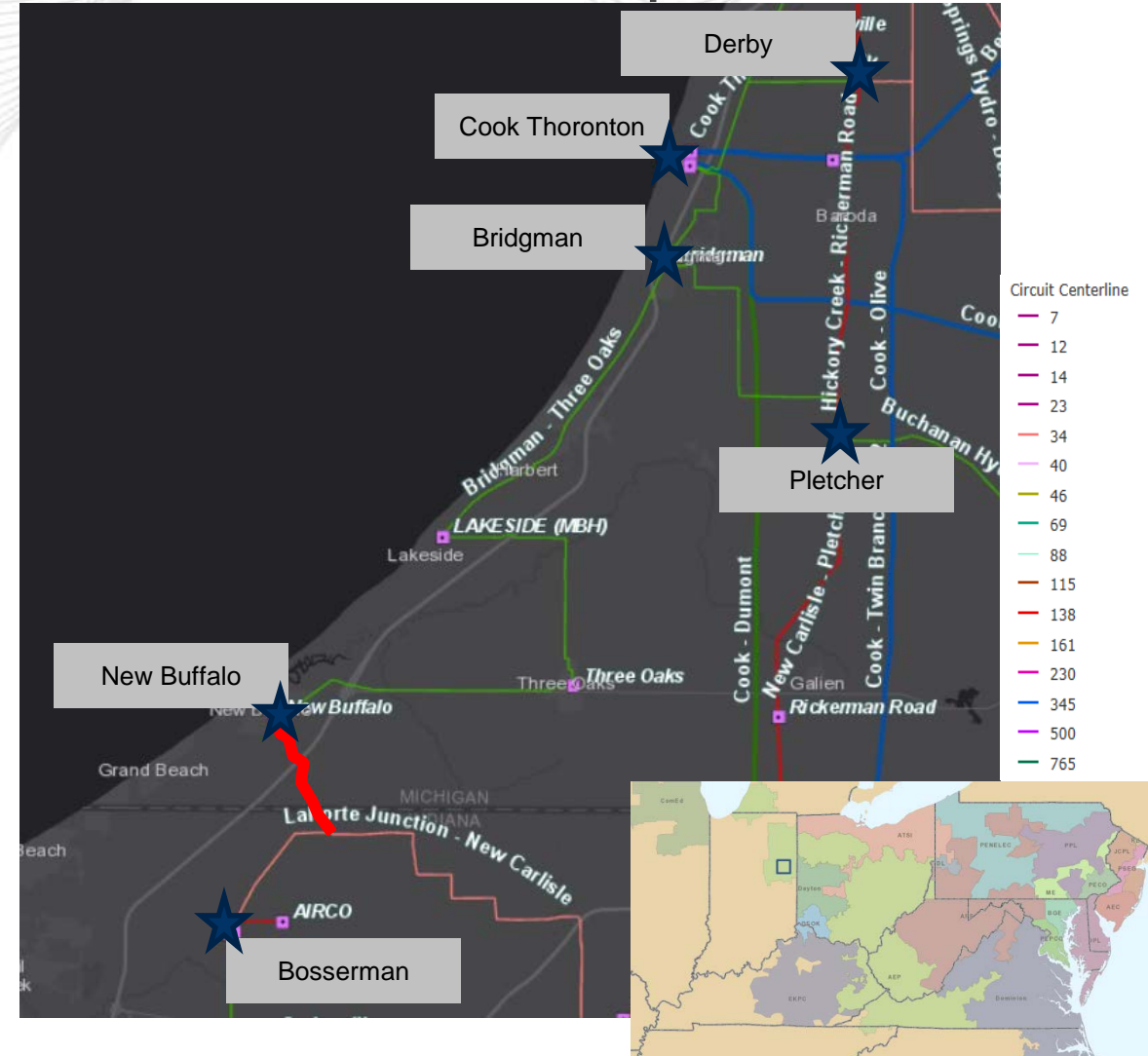
Estimated Cost: \$12.3M

Alternatives:

Re-conductor the overloaded sections. The existing wood pole structures can not accommodate bigger conductor.

Required IS Date: 06/01/2022

Project IS Date: 12/15/2020



Second Review

Baseline Reliability Projects

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AEP Transmission Zone: Baseline Jay - Portland

Previously Presented on 5/20/2019 SRRTEP

Process Stage: Second Review

Criteria: TO Criteria violation

Assumption Reference: FERC 715

Model Used for Analysis: 2022 RTEP Summer

Proposal Window Exclusion: FERC 715

Problem Statement:

For loss of Bluff Point – Portland 69kV and Adams – Berne 69kV lines, the following violation occurs in the 2022 RTEP case:

North Portland, Trinity, Berne, South Berne, Monroe and S. Decatur drop below .92 PU with North Portland reaching .8229 PU. The Bockoven load addition (need number AEP-2018-IM005) makes these violations slightly worse.

Proposed Solution:

Jay – North Portland 138/69kV line.

Rebuild the 138kV Jay – Pennville line as double circuit 138/69kV.

Build a new 9.8 mile single circuit 69 kV line from near Pennville station to North Portland station

(B3119.1) Cost: \$38.1M

Jay 138/69/34.5kV station

Install 3 69kV breakers to create the “U” string and add a low side breaker on the Jay transformer 2.

(B3119.2) Cost: \$3.4M

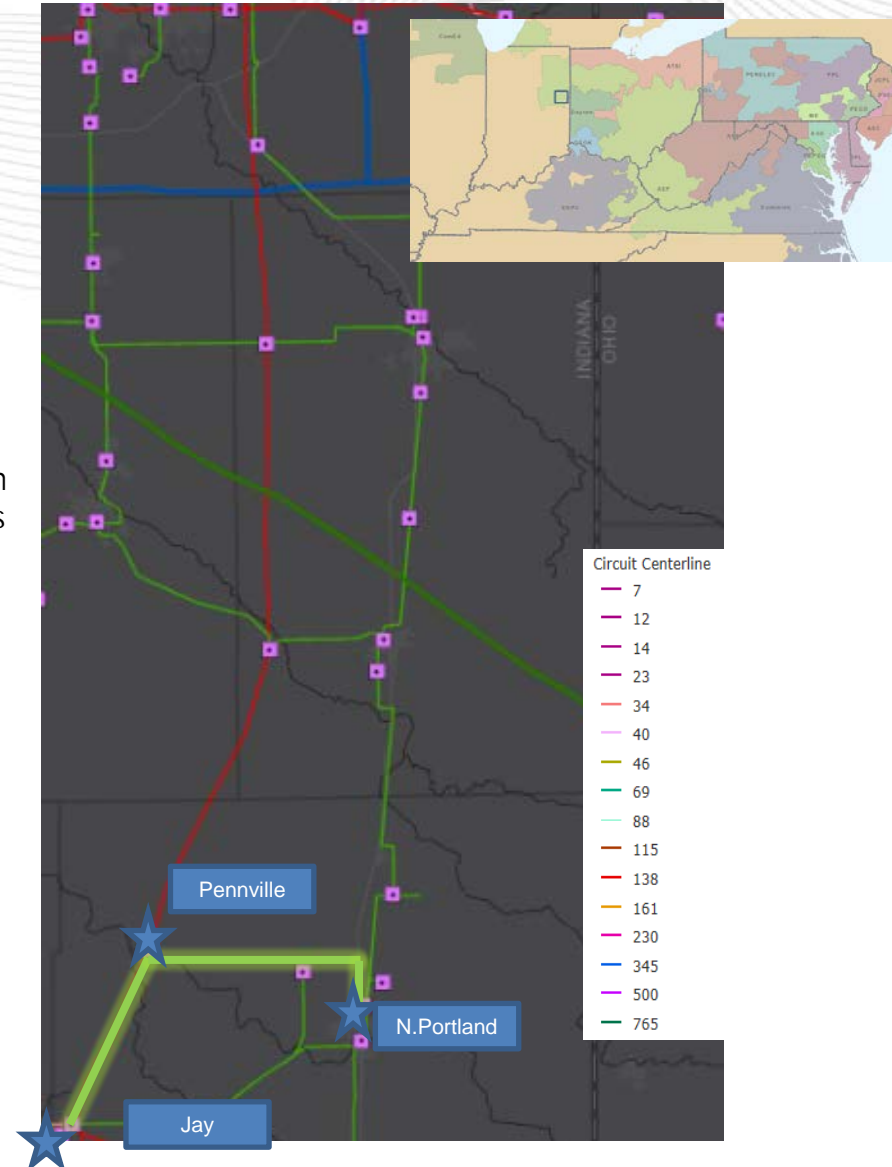
North Portland 69kV station

Install 2 69kV breakers to complete the ring and allow for the new line. (B3119.3) Cost: \$1.9M

Total Estimated Transmission Baseline Cost: \$43.4M

Required IS Date: 6/1/2022

Project Status: Scoping



Next Steps

Upcoming Western SRRTEP Dates

West	Start	End
7/24/2019	9:00	1:00

Questions?





Revision History

6/10/2019 – V1 – Original version posted to pjm.com

6/13/2019 – V2 – Slides #7 – 9, Removed the slides