

SRRTEP Committee: Western EKPC Supplemental Projects

June 15, 2022

Solutions

Stakeholders must submit any comments within 10 days of this meeting in order to provide time necessary to consider these comments prior to the next phase of the M-3 process

EKPC Transmission Zone M-3 Process Fall Rock - Manchester 69 KV

Need Number: EKPC-2022-001

Process Stage: Solutions Meeting – June 15, 2022

Previously Presented:

Needs Meeting –March 18, 2022

Supplemental Project Driver:

Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

EKPC Assumptions Presentation Slide 13

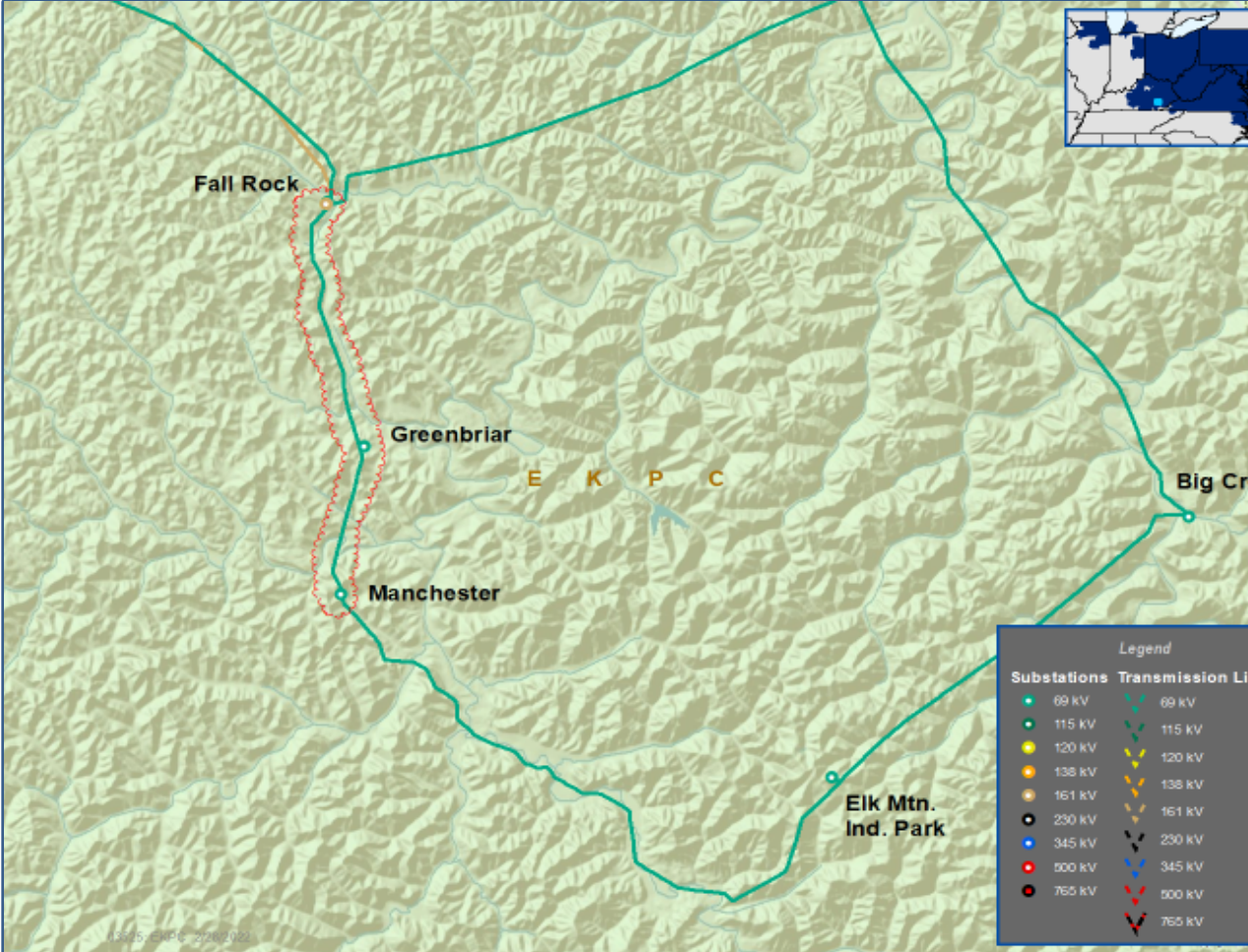
Problem Statement:

The 5.83 mile, Fall Rock-Manchester 69 KV transmission line section is 65 years old.

This line section has condition issues such as rusting, pitting, and broken strands. Based on this information, the EKPC Reliability team has concluded that this line is at or near end of life and should be addressed due to the condition assessment.

There are currently 33 open work orders for the line section with 30 being structure issues such as degraded poles, cross arm, or guy wire issues.

Model: N/A



EKPC Transmission Zone M-3 Process Fall Rock - Manchester 69 KV

Need Number: EKPC-2022-001

Process Stage: Solutions Meeting – June 15, 2022

Proposed Solution:

Rebuild the Fall Rock-Manchester 5.83 mile 69 KV transmission line using 556.5 ACSR conductor.

Transmission Cost: \$4.4M

Ancillary Benefits:

- None

Alternatives Considered:

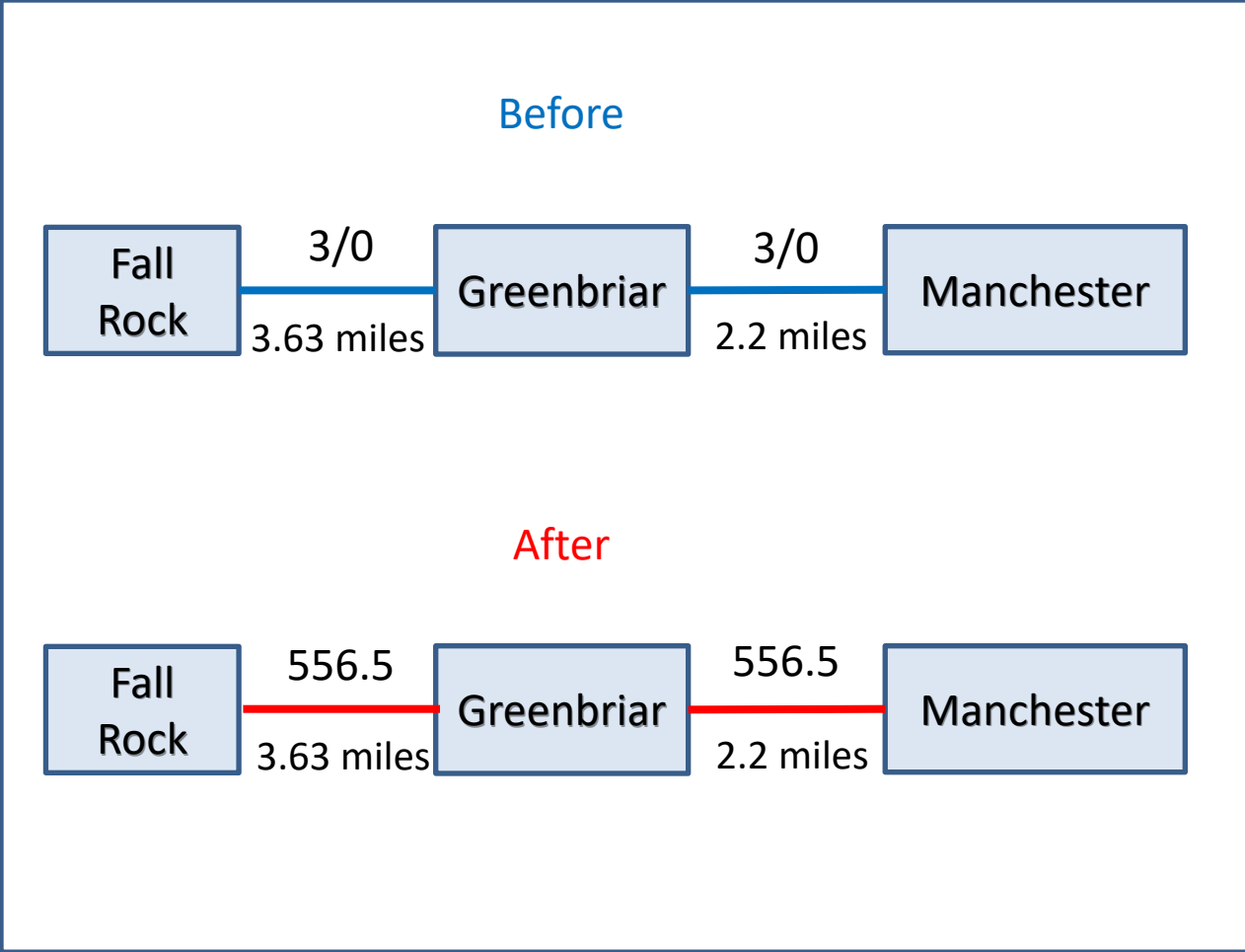
Alternative 1 - Rebuild the Manchester-Greenbriar 69 KV line section as double-circuit, build a new breaker station at Manchester, convert the normally open interconnection with KU at Manchester to normally closed, convert the normally open switch at Elk Mountain to normally closed and retire the Fall Rock-Greenbriar 69 KV line section.

Transmission Cost: \$7.5M

Projected In-Service: 12/31/2024

Project Status: Engineering

Model: N/A



EKPC Transmission Zone M-3 Process Headquarters – Millersburg Tap 69 KV

Need Number: EKPC-2022-002

Process Stage: Solutions Meeting – June 15, 2022

Previously Presented:

Needs Meeting –March 18, 2022

Supplemental Project Driver:

Equipment Material Condition, Performance and Risk

Specific Assumption Reference:

EKPC Assumptions Presentation Slide 13

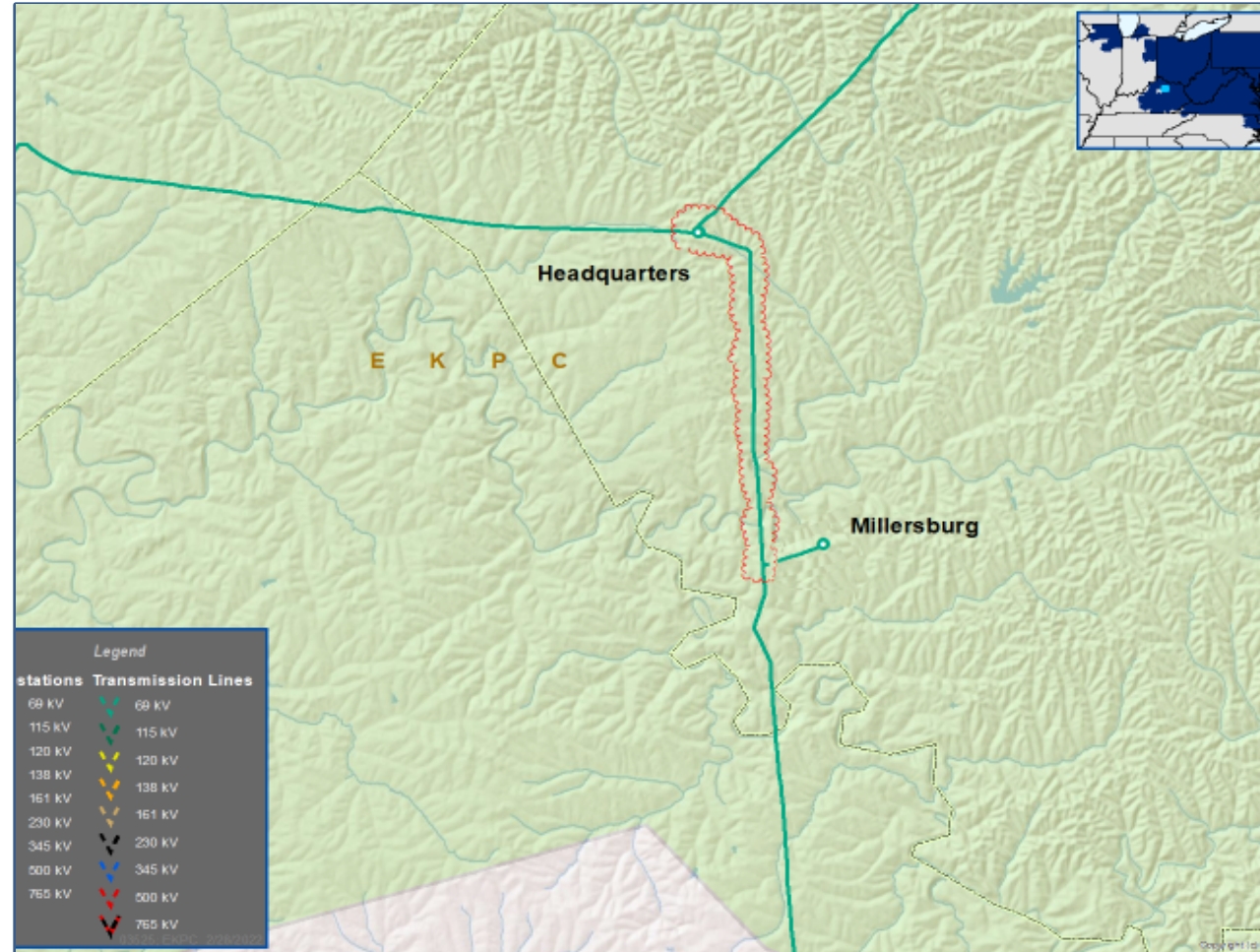
Problem Statement:

The 5.12 mile, Headquarters-Millersburg Tap 69 KV transmission line section is 71 years old.

This line section has condition issues such as rusting, pitting, and broken strands. Based on this information, the EKPC Reliability team has concluded that this line is at or near end of life and should be addressed due to the condition assessment.

There are currently 42 open work orders for the line section with 9 being structure issues such as rotten poles and woodpecker holes.

Model: N/A



EKPC Transmission Zone M-3 Process Headquarters – Millersburg Tap 69 KV

Need Number: EKPC-2022-002
Process Stage: Solutions Meeting – June 15, 2022

Proposed Solution:
Rebuild the 5.12 mile Headquarters-Millersburg Tap 69 KV line section using 556.5 ACSR conductor.

Transmission Cost: \$3.8M

Ancillary Benefits:

- None

Alternatives Considered:

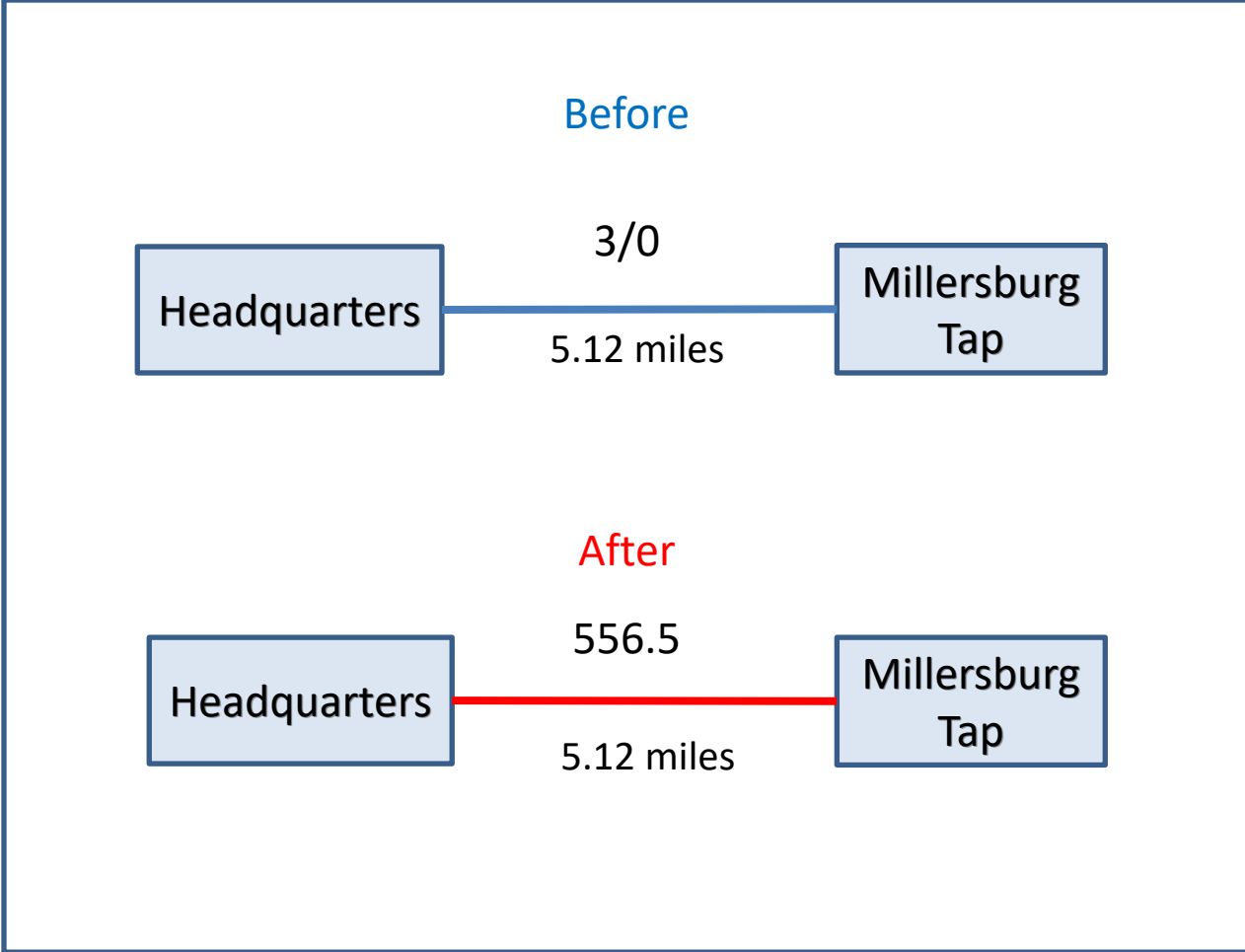
Alternative 1 - Retire the 5.12 mile Headquarters-Millersburg Tap 69 KV line section.
Transmission Cost: \$0.28M

Alternative 2 - Build a new 3.3 mile EKPC Millersburg-KU Millersburg 69 KV line section using 556.5 ACSR conductor. Retire the existing 5.12 mile Headquarter-Millersburg Tap 69 KV line section.
Transmission Cost: \$5.6M

Projected In-Service: 12/31/2025

Project Status: Engineering

Model: N/A



EKPC Transmission Zone M-3 Process Griffin Junction – Griffin 69 KV

Need Number: EKPC-2022-003

Process Stage: Solutions Meeting – June 15, 2022

Previously Presented:

Needs Meeting –March 18, 2022

Supplemental Project Driver:
Equipment Material Condition, Performance and Risk
Customer Service

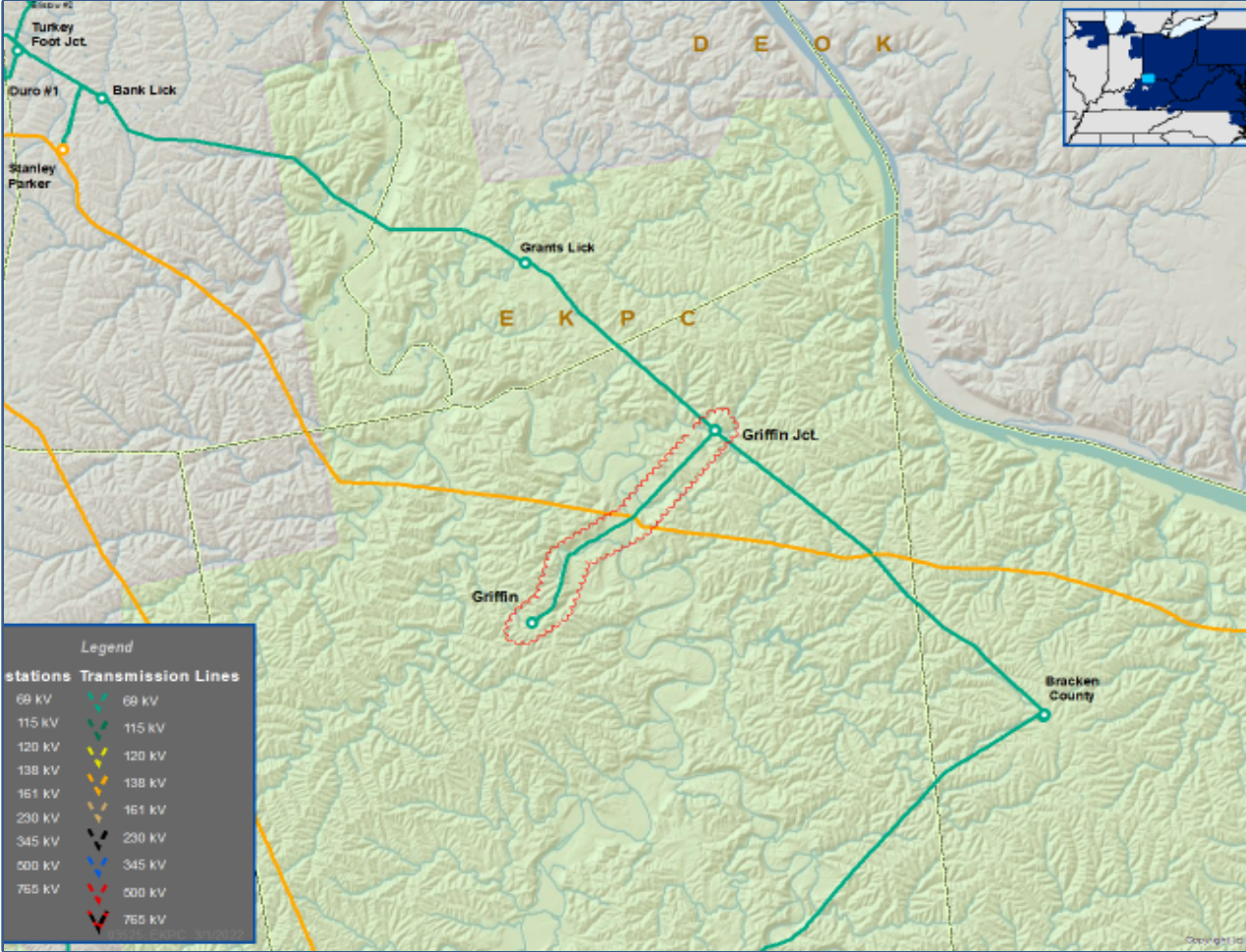
Specific Assumption Reference:
EKPC Assumptions Presentation Slides 13 & 15

Problem Statement:
The 6.4 mile, Griffin Junction-Griffin 69 KV transmission line section is 56 years old.

This line section has condition issues such as severe static wire condition and wood pole deterioration. Due to safety concerns and potential for forced long-term outages related to the static wire condition, line maintenance cannot be performed while energized and the Griffin substation cannot be back fed during a line outage. The EKPC Reliability team has concluded that this line section is at or near end of life and should be addressed due to this condition assessment.

There are currently 33 open work orders for this line section.

Model: N/A



EKPC Transmission Zone M-3 Process Griffin Junction – Griffin 69 KV

Need Number: EKPC-2022-003

Process Stage: Solutions Meeting – June 15, 2022

Proposed Solution:

Build a new 6.4 mile Griffin Junction-Griffin 69 KV line section using 266.8 ACSR conductor parallel to the existing line section. Retire the existing 6.4 mile line section upon completion of new line.

Distribution Cost: \$4.3M

Transmission Cost: \$0.0M

Ancillary Benefits:

- None

Alternatives Considered:

Alternative 1 - Build a new 6.4 mile double circuit Griffin Junction-Griffin 69 KV line section using 556.5 ACSR conductor parallel to the existing line section. Retire the existing 6.4 mile line section upon completion of new line.

Distribution Cost: \$0.35M

Transmission Cost: \$5.25M

Alternative 2 –Convert the distribution substation to 138 KV, loop in the EKPC 138 KV transmission via a new 3.5 mile 138 KV double circuit line. Retire the existing Griffin Junction-Griffin 6.4 mile line section upon completion of new line.

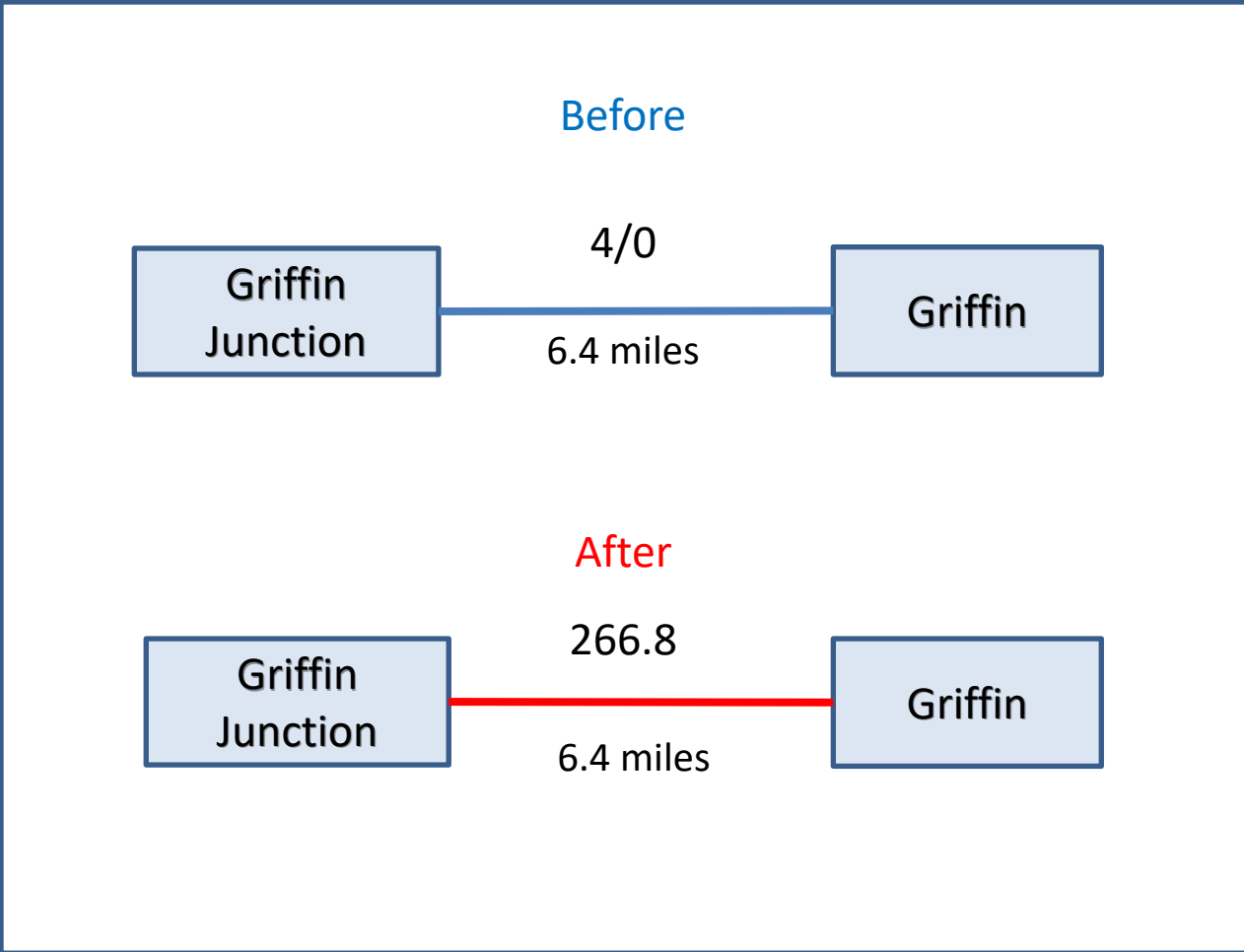
Distribution Cost: \$2.35M

Transmission Cost: \$4.45M

Projected In-Service: 12/31/2023

Project Status: Engineering

Model: N/A



Appendix

High Level M-3 Meeting Schedule

Assumptions	Activity	Timing
	Posting of TO Assumptions Meeting information	20 days before Assumptions Meeting
	Stakeholder comments	10 days after Assumptions Meeting
Needs	Activity	Timing
	TOs and Stakeholders Post Needs Meeting slides	10 days before Needs Meeting
	Stakeholder comments	10 days after Needs Meeting
Solutions	Activity	Timing
	TOs and Stakeholders Post Solutions Meeting slides	10 days before Solutions Meeting
	Stakeholder comments	10 days after Solutions Meeting
Submission of Supplemental Projects & Local Plan	Activity	Timing
	Do No Harm (DNH) analysis for selected solution	Prior to posting selected solution
	Post selected solution(s)	Following completion of DNH analysis
	Stakeholder comments	10 days prior to Local Plan Submission for integration into RTEP
	Local Plan submitted to PJM for integration into RTEP	Following review and consideration of comments received after posting of selected solutions

Revision History

6/3/2022 – V1 – Original version posted to pjm.com