Transmission Expansion Advisory Committee
FirstEnergy Supplemental Projects
APS Transmission Zone

September 08, 2026

Needs

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

APS Transmission Zone M-3 Process
New Customer Connection

Need Number: APS-2026-044
Process Stage: Need Meeting 09/08/2026
Project Driver: Customer Service

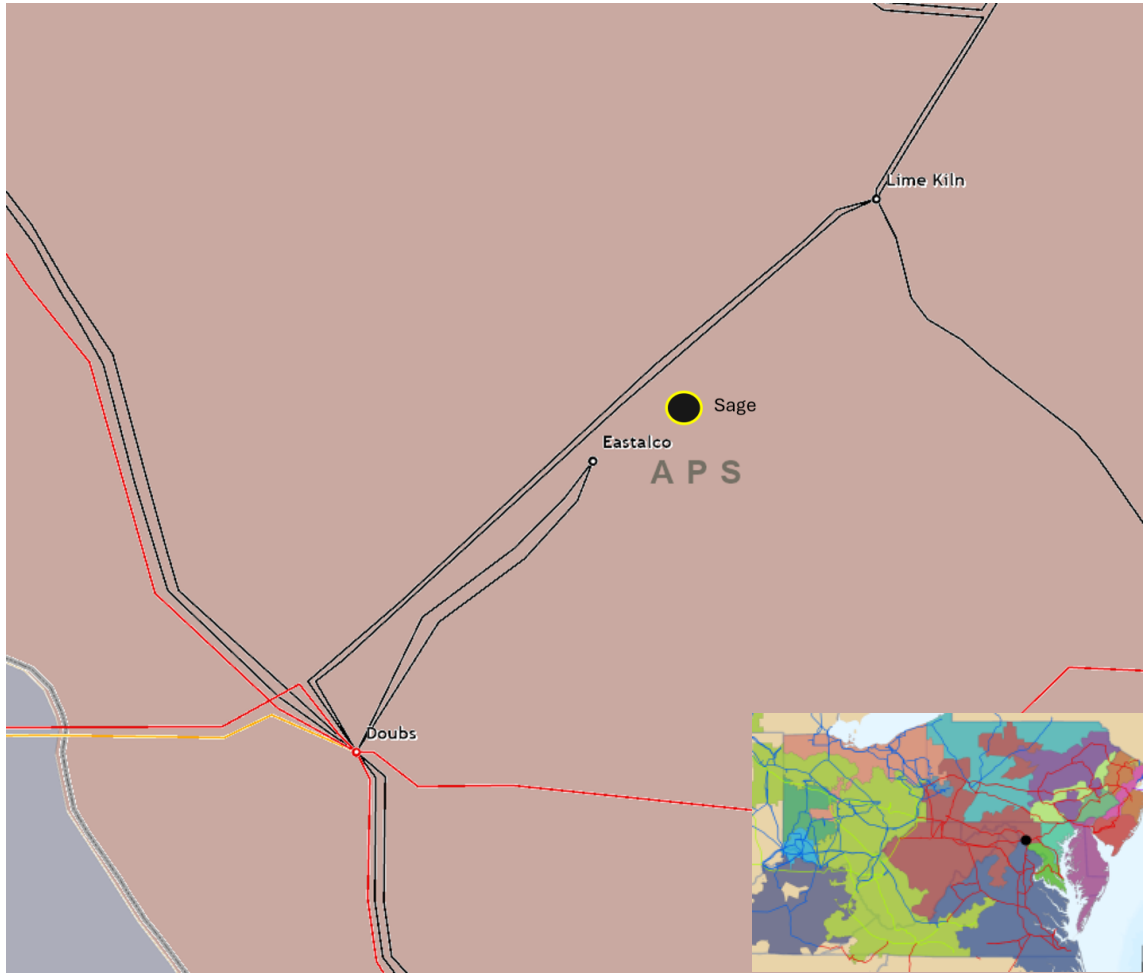
Specific Assumption References:

New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:

New Customer Connection - A customer requested 230 kV service for load of approximately 165 MW near the Sage Substation. The request is approximately a single span from Sage 230 kV Substation.

Requested in-service date is September 14, 2031.



APS Transmission Zone M-3 Process
New Customer Connection

Need Number: APS-2026-057
Process Stage: Need Meeting 09/08/2026
Project Driver: Customer Service

Specific Assumption References:

New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:

New Customer Connection - A customer requested 138 kV service for a load of approximately 900 MW near the Hatfield Substation. The request is approximately 2.0 miles from Hatfield Substation.

- Initial Load (2033): 300 MW
- Expect Load (2034): 900 MW
- Ultimate Load (2034): 900 MW

Requested in-service date is September 1, 2033.

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

APS Transmission Zone M-3 Process
New Customer Connection

Need Number: APS-2026-039
Process Stage: Solution Meeting 09/08/2026
Previously Presented: Need Meeting 07/07/2026
Project Driver: Customer Service

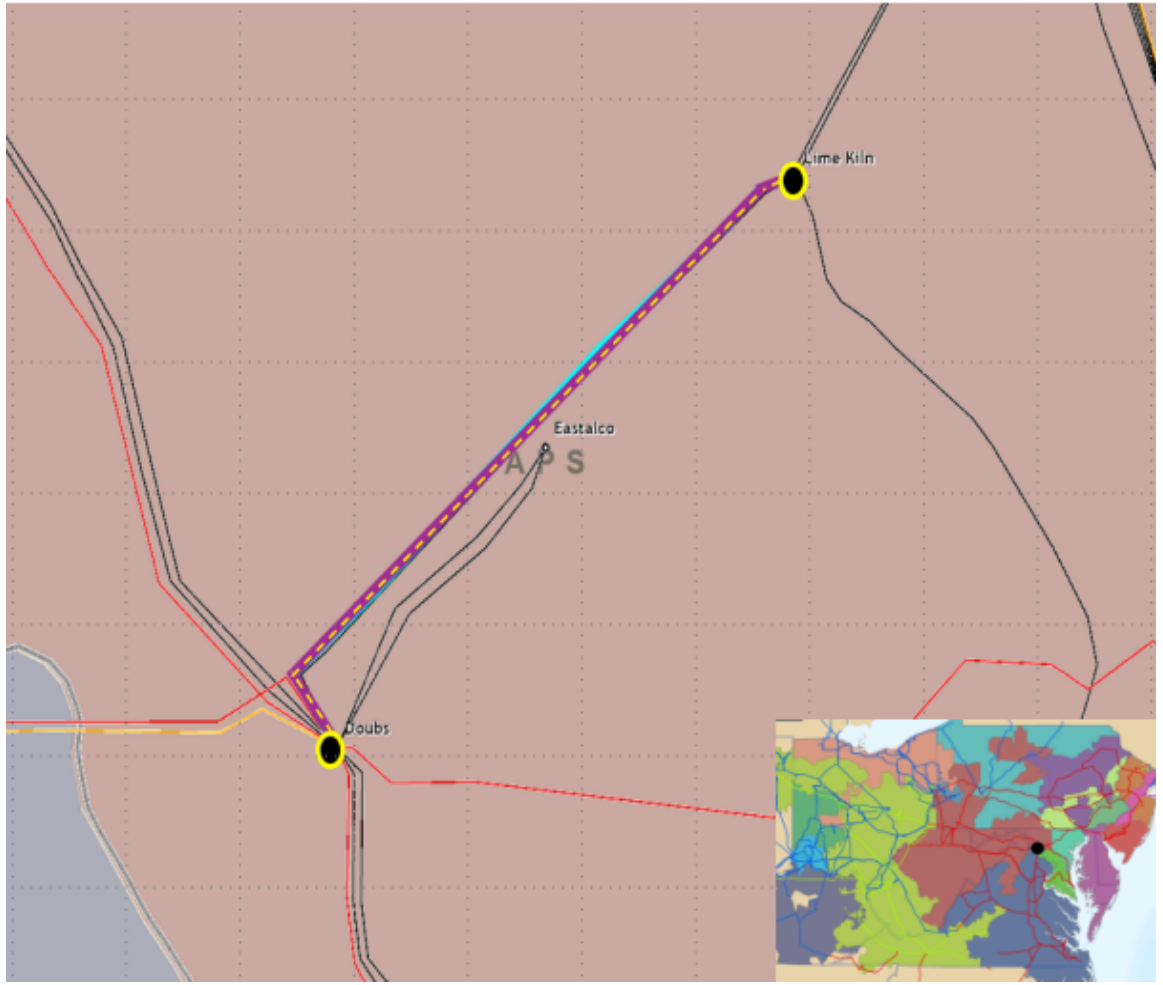
Specific Assumption References:

New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:

New Customer Connection - A new customer requested 230 kV service for load of approximately 368 MW near the Doubs - Sage #205 and #207 230 kV Lines. The request is approximately 2.9 miles from Doubs Substation and 0.6 miles from Sage Substation.

Requested in-service date is 4/30/2032.



APS Transmission Zone M-3 Process
New Customer Connection

Need Number: APS-2026-039
Process Stage: Solution Meeting 09/08/2026

Proposed Solution:

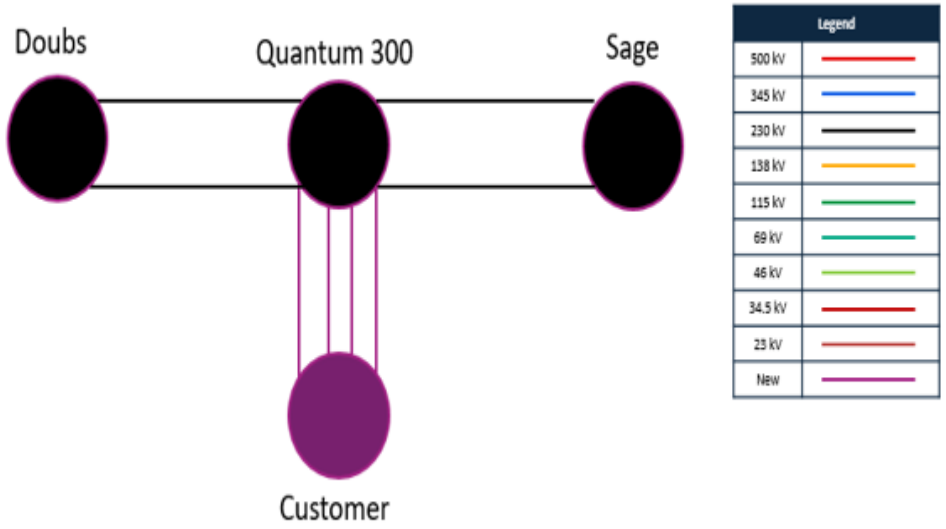
Install four 230 kV breakers at the Quantum 300 Substation constructed per APS-2025-021.

Build four single spans of 230 kV line to the POI and install four additional sets of 230 kV revenue metering equipment.

Alternatives Considered:

No reasonable alternatives due to the customer's proximity to the Doubs - Sage lines.

Estimated Project Cost: $8.02M
Projected In-Service: 04/12/2032
Project Status: Conceptual
Model: 2023 RTEP - 2028 Summer 50/50 Case



APS Transmission Zone M-3 Process
New Customer Connection

Need Number: APS-2026-041
Process Stage: Solution Meeting 09/08/2026
Previously Presented: Need Meeting 07/07/2026
Project Driver: Customer Service

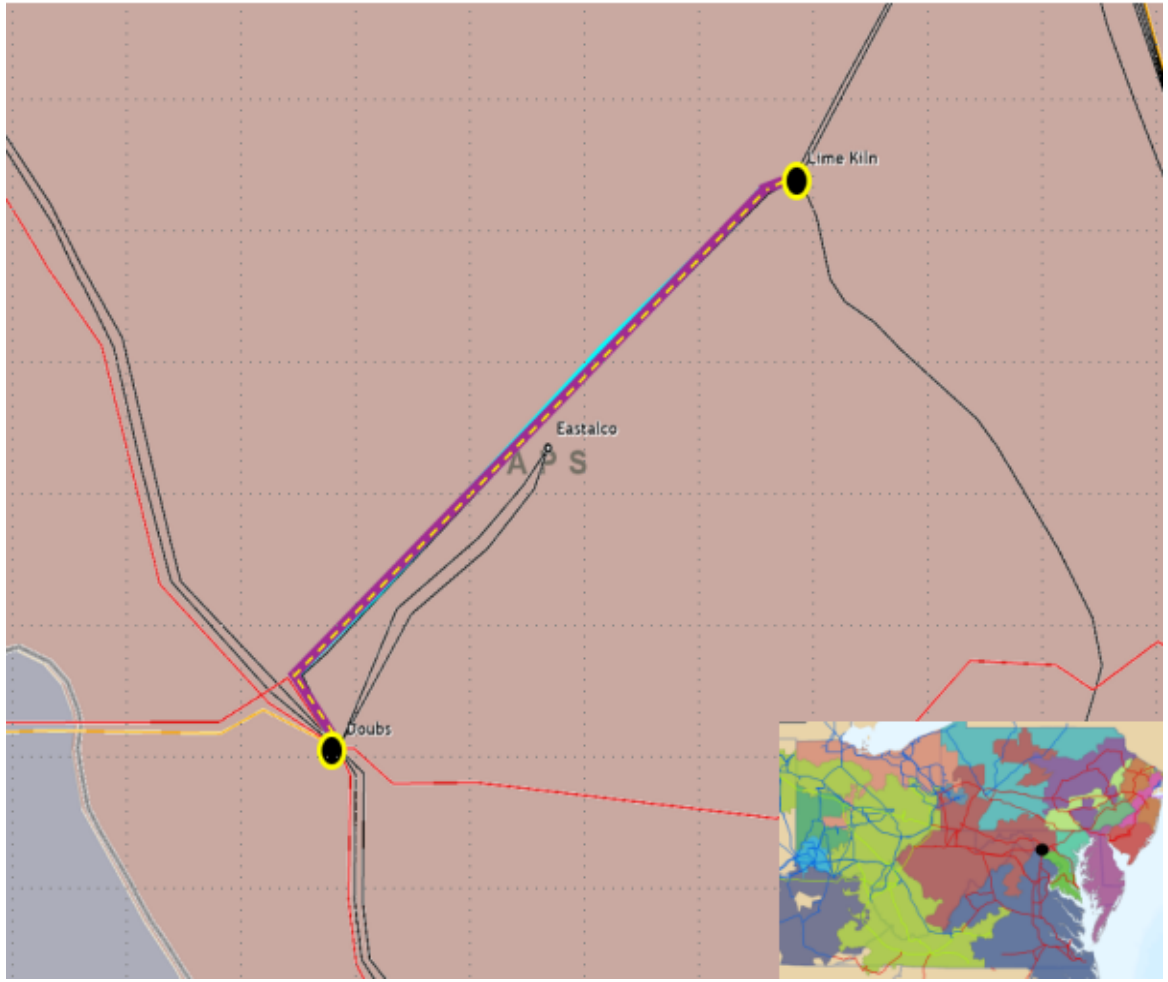
Specific Assumption References:

New customer connection requests will be evaluated per FirstEnergy's "Requirements for Transmission Connected Facilities" document and "Transmission Planning Criteria" document.

Problem Statement:

New Customer Connection - A new customer requested 230 kV service for load of approximately 1000 MW near the Doubs - Lime Kiln #231 230 kV Line and Ballenger Substation. The request is approximately 2.3 miles from Lime Kiln, 4.4 miles from Doubs, and 0.9 miles from Ballenger.

Requested in-service date is 12/31/2032.



APS Transmission Zone M-3 Process
New Customer Connection

Need Number: APS-2026-041

Process Stage: Solution Meeting 09/08/2026

Proposed Solution:

Construct a new 16-breaker (future 24-breaker), breaker-and-a-half substation.

Cut into the Quantum 400 - Lime Kiln #231 230 kV Line and loop in and out of the new substation.

Install two new 230 kV breakers at Sage Substation and build two 0.9 miles from Sage to the new substation.

Install eight 230 kV feeds to the Customer with eight sets of 230 kV metering equipment.

Transmission Line Ratings:

- Quantum 400 - Lime Kiln #231 230 kV Line:

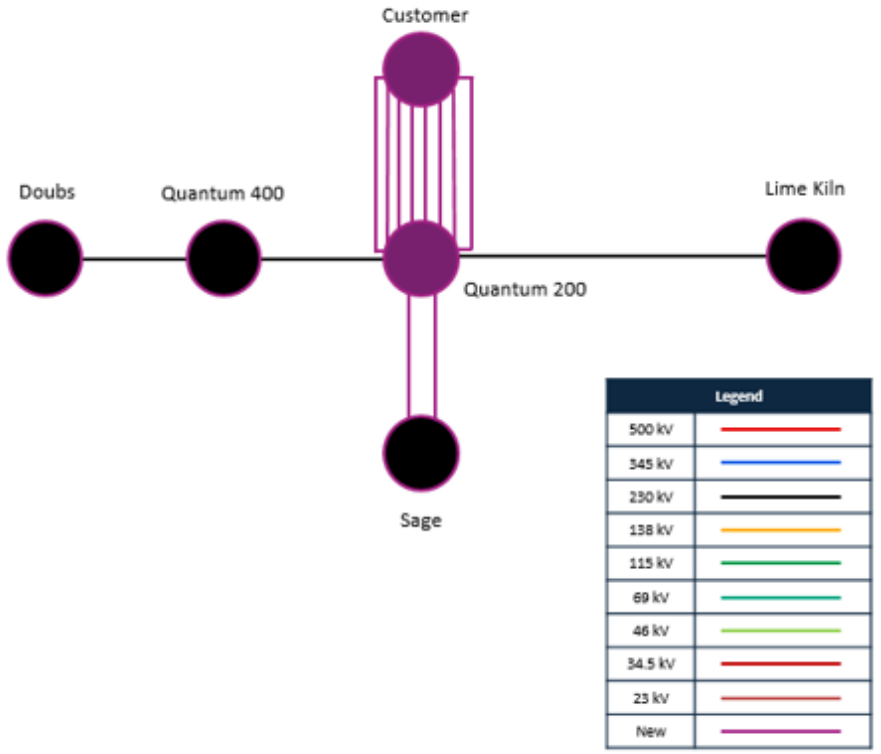
Before Proposed Solution: 617 / 754 / 699 / 894 MVA (SN/SE/WN/WE)

After Proposed Solution: 1156 / 1334 / 1159 / 1404 MVA (SN/SE/WN/WE)

- Quantum 200 - Sage No. 1 230 kV Line:

Before Proposed Solution: N/A

After Proposed Solution: 1156 / 1334 / 1159 / 1404 MVA (SN/SE/WN/WE)



APS Transmission Zone M-3 Process
New Customer Connection

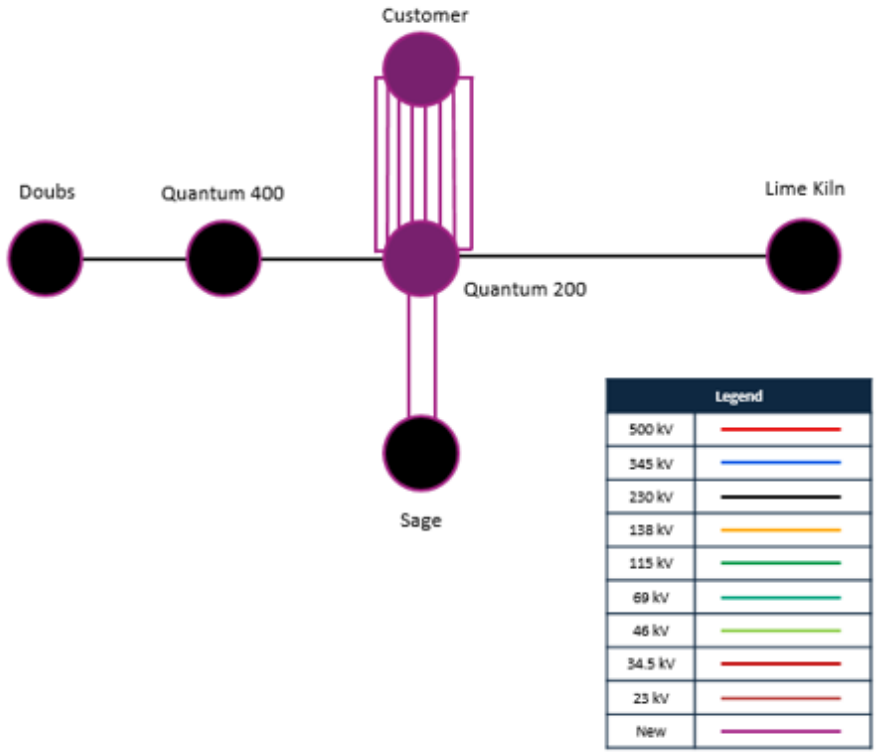
Need Number: APS-2026-041
Process Stage: Solution Meeting 09/08/2026

Proposed Solution:
- Quantum 200 - Sage No. 2 230 kV Line:
Before Proposed Solution: N/A
After Proposed Solution: 1156 / 1334 / 1159 / 1404 MVA (SN/SE/WN/WE)

- Quantum 200 - Quantum 400 230 kV Line:
Before Proposed Solution: N/A
After Proposed Solution: 1156 / 1334 / 1159 / 1404 MVA (SN/SE/WN/WE)

Alternatives Considered:
No reasonable alternatives due to the customer's proximity to the Doubs - Lime Kiln #231 Line.

Estimated Project Cost: $54.99M
Projected In-Service: 11/08/2032
Project Status: Conceptual
Model: 2023 RTEP - 2028 Summer 50/50 Case



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

08/28/2026– V1 – Original version posted to pjm.com

09/01/2026 – V2 – Updated Transmission Line ratings (before and after) for APS-2026-041