



Transmission Expansion Advisory Committee Market Efficiency Update

February 11, 2016



Market Efficiency 2014/15 Long Term Proposal Window Update

February Market Efficiency Board Recommendations:

- RPM Market Efficiency project in ComEd (Loretto – Wilton Center 345 kV)
- Optimal Capacitor configuration for Apsouth/AEP-DOM*
 - Capacitor installations at existing Dominion stations

Changes from Recommendations in January 2016:

- Size of capacitors for Optimal capacitor configuration changed for Brambleton and Ashburn substations to accommodate physical limitations

*Additional details provided in a PJM posted document accompanying this presentation.

Project ID: 201415_1-10D

Proposed by: ComEd

Proposed Solution: Mitigate sag limitations on Loretto-Wilton Center Line, and replace station conductor at Wilton Center.

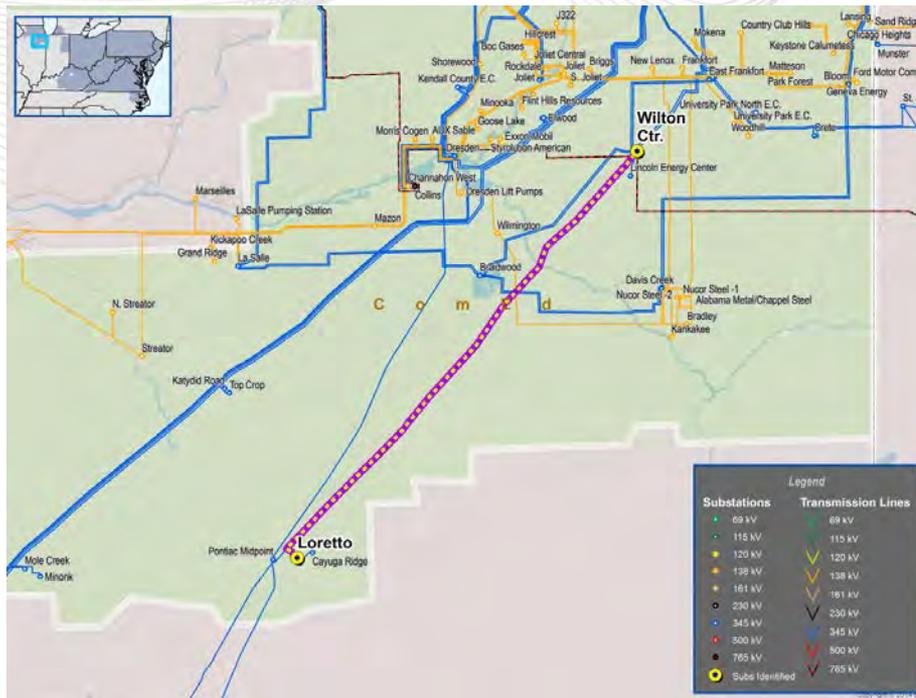
kV Level: 345

Cost (\$M): 11.5, B/C ratio=64.5

IS Date: 2019

Target Zone: ComEd

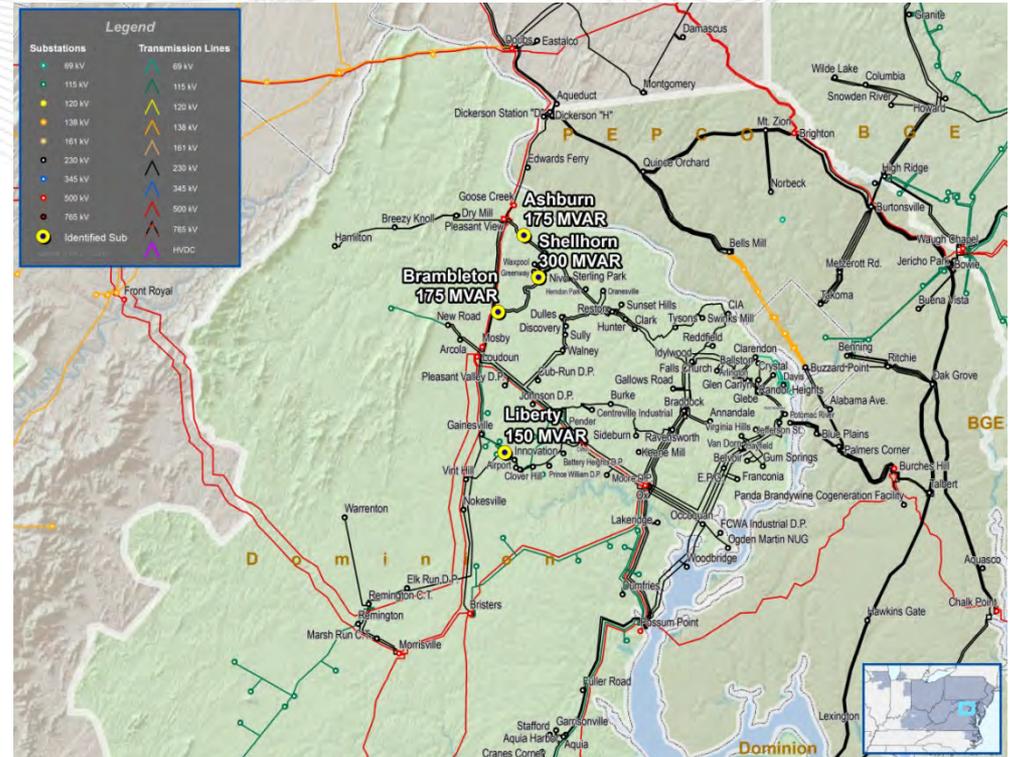
- Anticipate recommendation for Board approval in February 2015
- Designated Entity: ComEd (the local TO)
- Additional Projects provide no incremental benefit



Optimal Capacitor Configuration*	
Bus	Capacitor Size (MVAR)
Brambleton substation	175
Ashburn substation	175
Shelhorn substation	300
Liberty substation	150
Total	800

*Includes recently approved RTEP project +/- 450 MVAR SVC at Jacksons Ferry 765 kV substation (B2687.1)

- Anticipate recommendation for Board approval in February 2015
- Designated Entity: Dominion (the local TO)
- ISD: 2019
- Costs: \$8.98 million



Impact of optimal capacitor configuration

- Costs: \$8.98 million (Caps only)
- B/C ratio: 15.4
- Low cost with major benefits
- Does not eliminate interface congestion

	Base Case*	Base Case + Optimal Caps	Delta**
ApSouth congestion	\$352	\$304	-\$48
AEP-DOM congestion	\$58	\$58	\$0
Total congestion	\$562	\$515	-\$47
Gross load payments	\$73,765	\$73,724	-\$41
Production costs	\$44,051	\$44,033	-\$18

*Includes October 2015 Board approved Market Efficiency projects
 Values in \$ millions

**2019 + 2022 study years.

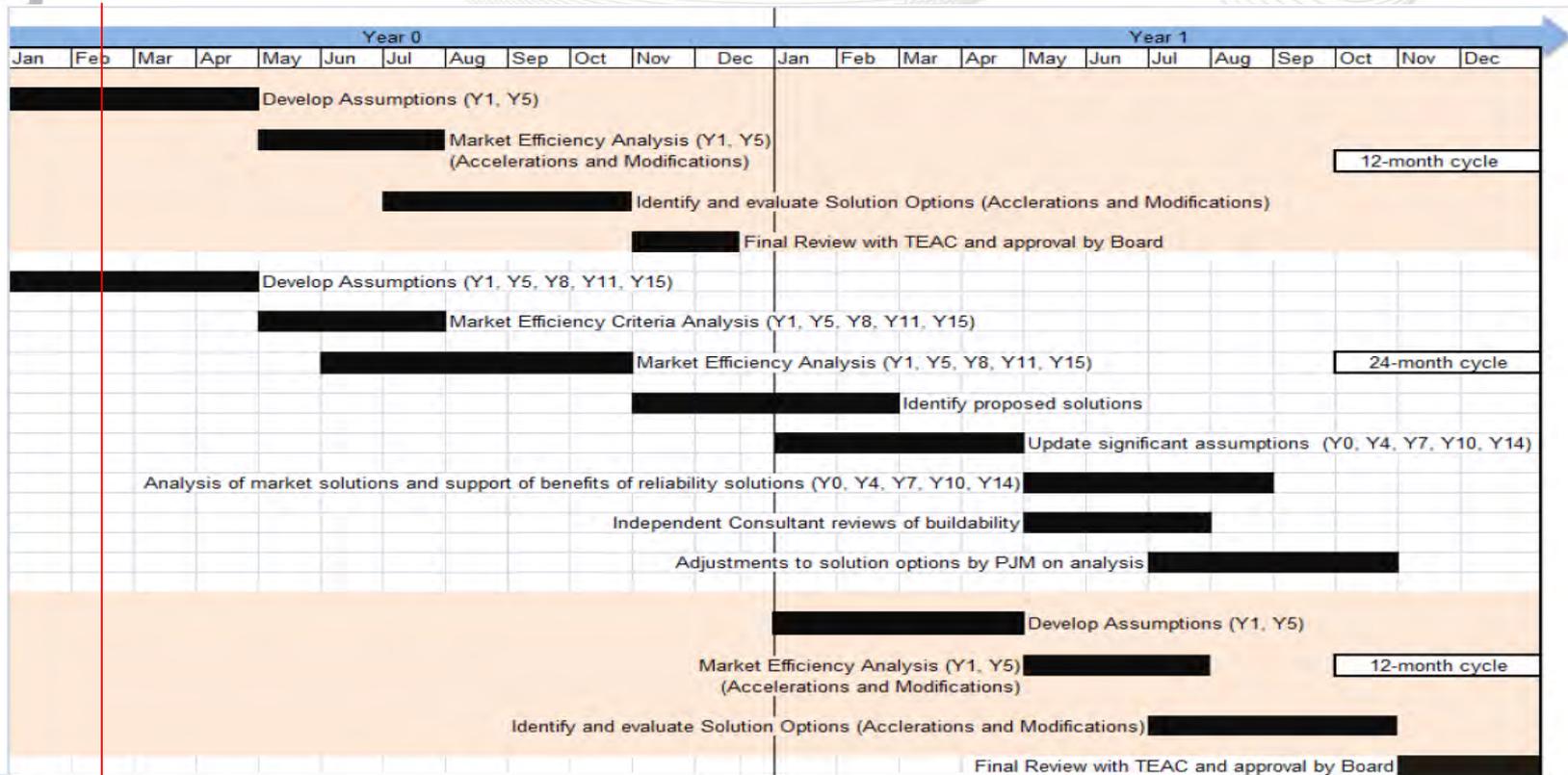
- Further study of transmission solutions for ApSouth/AEP-DOM Interfaces
 - Update Interface impact and PV results
 - Load Sensitivity Scenario using the recently released PJM Load Forecast 2016

- 2016 Base Case Development



Market Efficiency 2016/17 Long Term Proposal Window Update

Market Efficiency Timeline





2016-2017 24-Month Market Efficiency Cycle Timeline

- Long Term proposal window: November 2016 - February 2017
- Analysis of proposed solutions: March 2017 - November 2017
- Determination of Final projects: December 2017

Questions?

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