

500kV & 765kV
PJM Preferred Scenarios
Data Center Planning Initiative

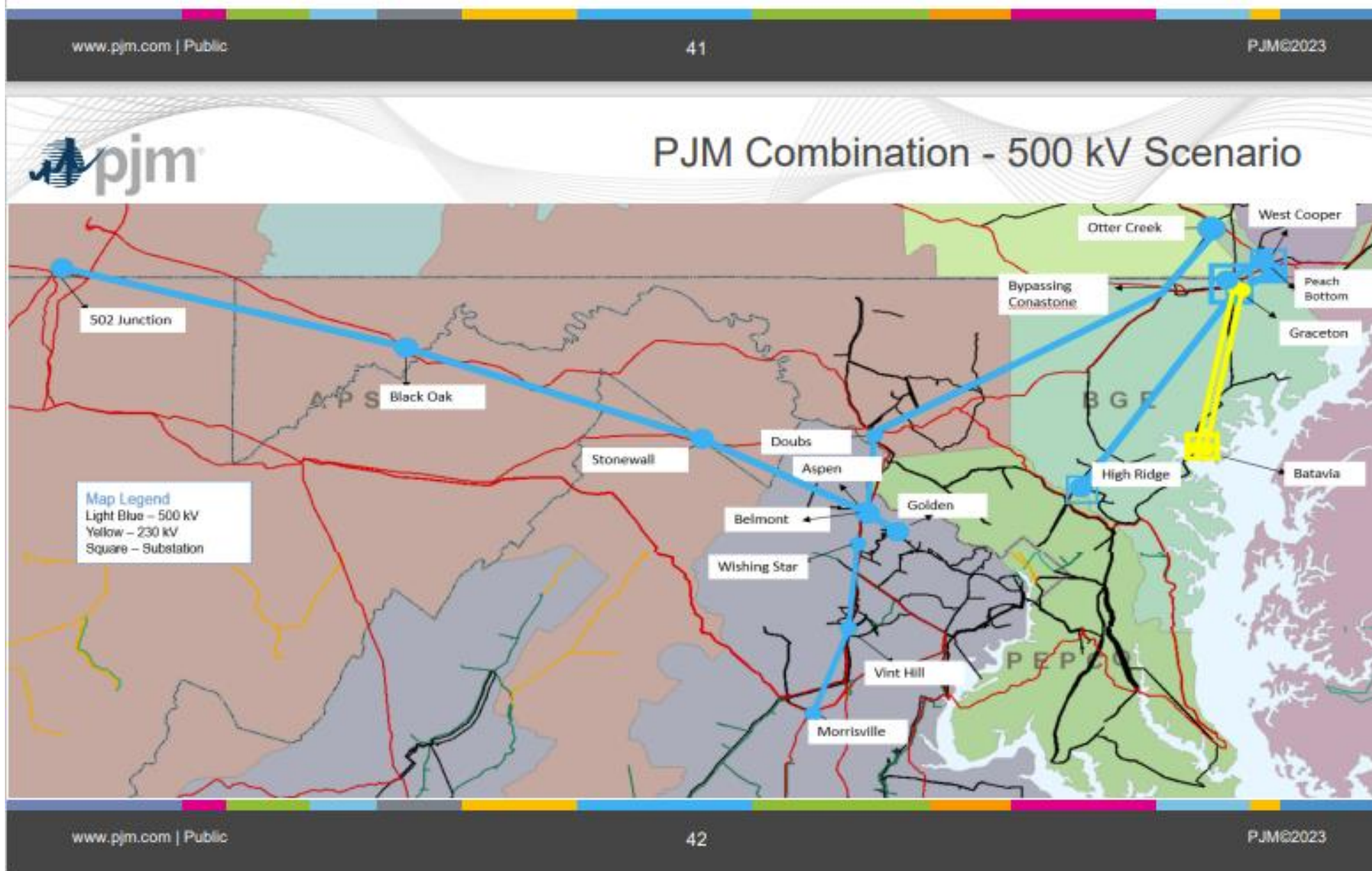
2022 RTEP Window 3

Regional Transmission Expansion Planning

Transmission Planning & Potential Impacts to PJM Region

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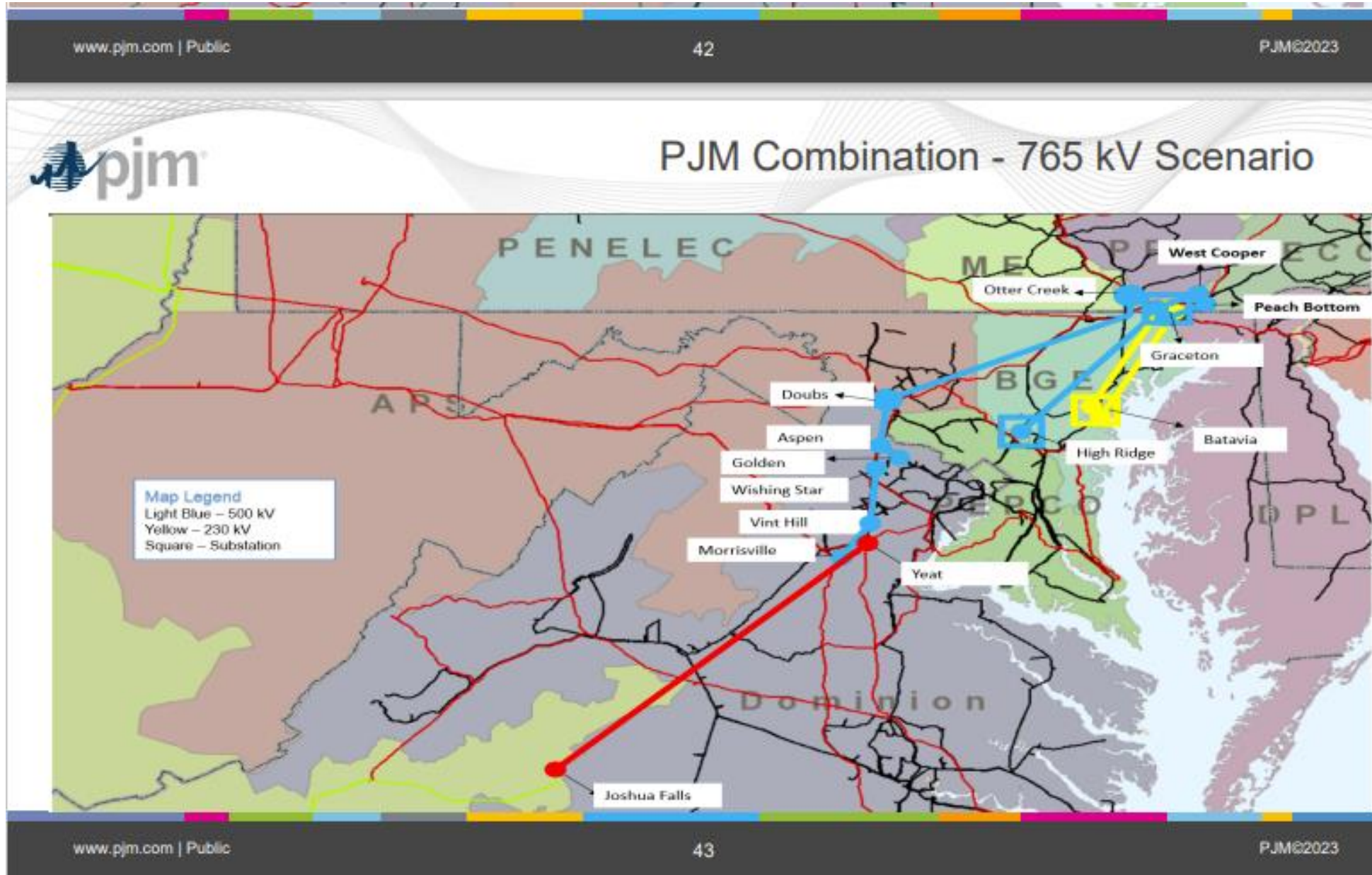
500kV Scenario



500kV Short List Scenario Proposals

Project Area	Proposal ID	Entity	Proposal Description	Key Facilities Included	Greenfield/Brownfield (Greenfield - new line routes or substation locations without use of existing utility ROW/land. (Brownfield - new line routes or substations using existing utility ROW/land.
East	344	PECO	PECO Expansion Plan for DOM Window 2023	New Peach Bottom - Graceton 500 kV (PECO) New Peach Bottom - North Delta - Highridge 500 kV (PECO) Rebuild 5012: Peach Bottom - North Delta - Graceton -Conastone (PECO) New North Delta - Cooper 230 kV	Brownfield routes, Greenfield substation
	660	PEPCO	West Cooper BGE-PEPCO	Graceton and High Ridge 500 kV Expansions; New Batavia Rd 230 kV station New Peach Bottom - Graceton 500 kV (BGE) New Peach Bottom - North Delta - Highridge 500 kV (BGE) Rebuild 5012: Peach Bottom - North Delta - Gracetone -Conastone (BGE) Graceton - Batavia Rd 230 kV DCT Rebuild Batava Rd- Riverside 230 kV DCT	Brownfield routes and substations
	b3780.6	BGE	Brandon Shores Deactivation Baselines	Build Granite substation + Statcom. New STATCOM rating: 350 MVAR Add 4x 230 kV breaker bays	Substation upgrade
	374	PPL	Otter Creek - Conastone 500 and 230 kV DCT Line	New Otter Creek 500 kV (tie-in to TMI - Peach Bottom 500 kV) New Otter Creek - Conastone 500/230 kV DCT	Brownfield route, Greenfield substation
	637	PSEG	Proposal D-Conastone-Doubs 500kV	New Conastone - Doubs 500 kV line	Greenfield route
West	853	Nextera	502 Junction - Black Oak - Woodside - Gant, Woodside SVC + Cap Banks	New Woodside 500 kV substation with 500 MVAR STATCOM & Capbanks New Gant 500 kV substation Black Oak 500 kV Expansion New 502 Junction - Black Oak - Woodside - Gant 500 kV line	Greenfield route adjacent to existing ROW, Part Brownfield
South	837	FirstEnergy	Data Center Reinforcement Proposal #1	Doubs - Goose Creek 500 kV Rebuild (FE) New Doubs - Aspen 500 kV Line (FE)	Brownfield routes
	516	Dominion	Interregional solution- Aspen-Doubs Second 500 kV Line	Doubs - Goose Creek 500 kV Rebuild (DOM) New Doubs - Aspen 500 kV Line (DOM) New Aspen Substation upgrade	Brownfield routes
	711	Dominion	Regional Solution - 500 kV North Anna-Wishing Star Upgrades	New Morrisville - Vint Hill - Wishing Star 500 kV Bristers - Morrisville 500 kV Rebuild Loudoun - Morrisville 500 kV Rebuild Mosby - Wishing Star 500 kV Rebuild	Brownfield routes
	231	Dominion	Reactive Power VAR Reinforcements	Morrisville Substation (230 kV 150 MVAR Cap) Wishing Star Substation (230 kV 150 MVAR Cap, 500 kV 293.8 MVAR Cap) Mars Substation (230 kV 150 MVAR Cap, 500 kV 300 MVAR STATCOM) Beaumeade Substation (230 kV 300 MVAR STATCOM)	Substation upgrades
	30, 74, 704, 731	Dominion	Dominion Proposed 230 kV Upgrades	Charlottesville to Hollymead 230 kV Reconductor Ladysmith CT - Fredericksburg 230 kV Rebuild Hollymead - Gordonsville 230 kV Rebuild Locks 230 kV Substation Transformer upgrade	Brownfield upgrades
	PJM Identified Upgrades	Dominion	PJM Identified 230 kV violations	Line #256 Rebuild St. Johns - Ladysmith CT 230 kV Sterling Park – Golden 230 kV Reconductor Davis Drive – Sterling Park 230 kV Reconductor	Brownfield upgrades
Dominion Data Center Alley	692	Dominion	Data Center Alley Local solution - New 500 kV/230 kV Aspen-Golden & Golden-Mars lines	New Aspen and Golden 500/230 kV Substation New Mars 500/230 Transformer New Aspen - Golden 500 kV and 230 kV lines New Golden - Mars 500 kV and 230 kV lines	Greenfield routes. One brownfield & one greenfield substation

765kV Scenario



765kV Short List of Proposals

Project Area	Proposal ID	Entity	Proposal Description	Key Facilities Included	(Greenfield - new line routes or substation locations without use of existing utility ROW/land. (Brownfield - new line routes or substations using existing utility ROW/land.
East	344	PECO	PECO Expansion Plan for DOM Window 2023	New Peach Bottom - Graceton 500 kV (PECO) New Peach Bottom - North Delta - Highridge 500 kV (PECO) Rebuild 5012: Peach Bottom - North Delta - Graceton - Conastone (PECO) New North Delta - Cooper 230 kV	Brownfield routes, Greenfield substation
	660	PEPCO	West Cooper BGE-PEPCO	Graceton and High Ridge 500 kV Expansions; New Batavia Rd 230 kV station New Peach Bottom - Graceton 500 kV (BGE) New Peach Bottom - North Delta - Highridge 500 kV (BGE) Rebuild 5012: Peach Bottom - North Delta - Graceton - Conastone (BGE) Graceton - Batavia Rd 230 kV DCT Rebuild Batava Rd- Riverside 230 kV DCT	Brownfield routes and substations
	b3780.6	BGE	Brandon Shores Deactivation Baselines	Build Granite substation + Statcom. New STATCOM rating: 350 MVAR Add 4x 230 kV breaker bays	Substation upgrade
	374	PPL	Otter Creek - Conastone 500 and 230 kV DCT Line	New Otter Creek 500 kV (tie-in to TMI - Peach Bottom 500 kV) New Otter Creek - Conastone 500/230 kV DCT	Brownfield route, Greenfield substation
	637	PSEG	Proposal D-Conastone-Doubs 500kV	New Conastone - Doubs 500 kV line	Greenfield route
West	904	Transource	Joshua Falls - Yeat 765kV Greenfield Line and Substation	New Joshua Falls - Yeat 765 kV line New Yeat 765/500/230 kV station Tie-ins to Bristers – Ox 500 kV, and Meadowbrook – Vint Hill 500 kV	Greenfield route and substations
	837	FirstEnergy	Data Center Reinforcement Proposal #1	Bedington Substation - Rebuild & Install 600 MVAR STATCOM	Substation upgrade
South	837	FirstEnergy	Data Center Reinforcement Proposal #1	Doubs - Goose Creek 500 kV Rebuild (FE) New Doubs - Aspen 500 kV Line (FE)	Brownfield routes
	516	Dominion	Interregional solution- Aspen-Doubs Second 500 kV Line	Doubs - Goose Creek 500 kV Rebuild (DOM) New Doubs - Aspen 500 kV Line (DOM) New Aspen Substation upgrade	Brownfield routes
	711	Dominion	Regional Solution - 500 kV North Anna-Wishing Star Upgrades	New Morrisville - Vint Hill - Wishing Star 500 kV Bristers - Morrisville 500 kV Rebuild Loudoun - Morrisville 500 kV Rebuild Mosby - Wishing Star 500 kV Rebuild	Brownfield routes
	231	Dominion	Reactive Power VAR Reinforcements	Morrisville Substation (230 kV 150 MVAR Cap) Wishing Star Substation (230 kV 150 MVAR Cap, 500 kV 293.8 MVAR Cap) Mars Substation (230 kV 150 MVAR Cap, 500 kV 300 MVAR STATCOM) Beaumeade Substation (230 kV 300 MVAR STATCOM)	Substation upgrades
	30, 74, 704, 731	Dominion	Dominion Proposed 230 kV Upgrades	Charlottesville to Hollymead 230 kV Reconductor Ladysmith CT - Fredericksburg 230 kV Rebuild Hollymead - Gordonsville 230 kV Rebuild Locks 230 kV Substation Transformer upgrade	Brownfield upgrades
	PJM Identified Upgrades	Dominion	PJM Identified 230 kV violations	Line #256 Rebuild St. Johns - Ladysmith CT 230 kV Sterling Park – Golden 230 kV Reconductor Davis Drive – Sterling Park 230 kV Reconductor	Brownfield upgrades
	Dominion Data Center Alley	692	Dominion	Data Center Alley Local solution - New 500 kV/230 kV Aspen-Golden & Golden-Mars lines	New Aspen and Golden 500/230 kV Substation New Mars 500/230 Transformer New Aspen - Golden 500 kV and 230 kV lines New Golden - Mars 500 kV and 230 kV lines

Short List Proposals- Questions to PJM

344: The PJM spreadsheet which was just shared lists New Peach Bottom – North Delta – Highridge 500kV (PECO); & Rebuild 5012: Peach Bottom-North Delta-Graceton-Conastone (PECO); & New North Delta-Cooper 230kV

I don't find any proposal scope in 344 that speaks to North Delta, in any of the components. Is PJM having PECO write a new or revised proposal 344 to include North Delta rather than West Cooper? When will the public have these new details?

660: The PJM spreadsheet which was just shared lists New Peach Bottom-North Delta-Highridge 500kV (BGE); & Rebuild 5012 Peach Bottom-North Delta-Graceton-Conastone (BGE)

I don't find any proposal scope in 660 that speaks to North Delta, in any of the components. Is PJM having BGE (Exelon) write a new or revised proposal 660 to include North Delta rather than West Cooper? When will the public have these new details?

711: The PJM spreadsheet which was just shared lists New Morrisville-Vint Hill-Wishing Star 500kV

I don't find any proposal scope in 711 running a new 500kV line from Morrisville to Vint Hill. Is PJM having Dominion write a new proposal or add scope to 711 to add this additional new 500kV line from Morrisville, connecting to Vint Hill? When will the public have these new details?

Where do we find the details on the “PJM Identified Upgrades” in this PJM spreadsheet for the 500kV and 765kV short list scenarios?:

Line #256 Rebuild St. Johns-Ladysmith CT 230kV
Sterling Park-Golden 230kV Reconductor
Davis Drive-Sterling Park 230kV Reconductor

Which TO is doing this work?

Short List Proposals- Questions to PJM (continued)

I searched the TEAC immediate needs projects for **b3780.6 BGE Brandon Shores Deactivation Baselines** included in the PJM spreadsheet for the 500kV and 765 short list scenarios, but did not find it there.

Where on the PJM site are the details on this project? Is this an Exelon project?

While I understand PJM will be sharing the final selected proposal and a detailed list of components on Oct. 31, my county's leadership is looking for reviews now of what is now contained in the short-listed scenarios.

Other than these above discrepancies and gaps with the proposals which were provided to the public, it appears the following components have been selected by PJM from the proposals for the 500kV and 765kV short list scenarios outlined on 10/3/23:

30 – Component #3

74 – Component #3

704 – Component #3

731 – Component #1

231 – Components: 11, 20, 10, 4

344 – Components: 4, 6, 7; 5?, 12? – with the above differences with North Delta

374 – Components: 1, 2, 3 – include both PPL and BGE Otter Creek-Conastone scope items 2 & 3?

516 – Components: 9, 8, 1

637 – Component #8

660 – Components: 1, 2, 3, 5, 6, 7, 8, 9 – with the above differences with North Delta

692 – Components: 1, 11

711 – Components: 8, 10, 11, 12 – with the above additional not-yet-included scope for Morrisville-Vint Hill

837 – Components: 16, 17 (in both 500 and 765); 6 (765 only)

853 – Components: 5, 6, 7, 8 (500 only)

904 – Components: 1, 2, 3 (765 only)

It is my further understanding that any other scope components contained in the above listed proposals will NOT be pursued in the PJM initiative for 2022 Window 3 (unless the final recommended scenario contains more changes), but may be pursued in other future longer-term PJM initiatives.

Please advise if anything is missing or incorrect in this tally.