Zonal Cost Allocation for Retaining Wagner 3&4 Generators

Reliability Problems

The following reliability problems would occur if the Wagner units 3 & 4 retired prior to required baseline projects being completed:

- Overload of the Wagner 230/115 kV Transformer 1
- Overload of the Wagner 230/115 kV Transformer 2
- Overload of the Howard – Pumphrey 230 kV line
- Overload of the Monument St – Erdman 115 kV line
- Overload of the North East 230/115 kV Transformers
- Overloads in the Otter Creek 500 kV area for N-1-1 Voltage Drop
- Overloads in the North-East Portion of BGE for N-1-1 Voltage Drop

In addition to the overloads noted above, PJM also observed wide spread voltage deviation violations impacting the following Transmission Owners: BGE, PEPCO, Dominion, PECO, APS, ME and PPL

Baseline Projects

As of the time of this posting, the anticipated reinforcements would be as follows:

Upgrade ID	Description	Cost Estimate ($M)	Trans Owner	Status	Projected In Service Date
b3780.14	Reconfigure Cooper transmission feeds by establishing new Cooper-North Delta 230 kV line and rerouting existing transmissions lines by Cooper.	6.73	PECO	EP	12/31/2028
b3780.15	Cut in 5012 Peach Bottom-Conastone 500 kV line into North Delta 500/230 kV substation by rebuilding 5012 between new terminal at Peach Bottom South and North Delta on single circuit structures and terminating at North Delta.	7.29	PECO	EP	12/31/2028
b3780.16	Terminate new Cooper-North Delta 230 kV line (Transource Scope) at North Delta 230 kV.	0.47	Transource	EP	12/31/2028
b3780.17	Cut in 5012 Peach Bottom-Conastone 500 kV line into North Delta 500/230 kV substation by rebuilding 5012 between new terminal at Peach Bottom South and North Delta on single circuit structures and terminating at North Delta (Transource Scope).	1.1	Transource	EP	12/31/2028

b3800.5	Peach Bottom-TMI 500 kV – Replace terminal equipment at Peach Bottom (install new line terminal relays and communication infrastructure within Peach Bottom and along the 5007)	2.5	PECO	EP	6/1/2027
b3800.26	Build High Ridge 500 kV substation - Three bay breaker and half configuration.	0	BGE	UC	12/31/2030
b3800.27	High Ridge 500 kV substation (cut into Brighton-Waugh Chapel 500 kV line) - Waugh Chapel side.	33.67	BGE	UC	12/31/2030
b3800.28	High Ridge 500 kV substation (cut into Brighton-Waugh Chapel 500 kV line) -Brighton side.	33.67	BGE	UC	12/31/2030
b3800.29	High Ridge termination for the North Delta-High Ridge 500 kV line.	33.67	BGE	UC	12/31/2030
b3800.30	High Ridge - Install two 500/230 kV transformers.	22.11	BGE	UC	12/31/2030
b3800.31	Build new North Delta-High Ridge 500 kV line.	13.36	PECO	EP	12/1/2030
b3800.32	Build new North Delta-High Ridge 500 kV line. (~59 miles).	407.11	BGE	UC	12/31/2030
b3800.33	Replace terminal equipment limitations at Brighton 500 kV - on the existing Brighton-Waugh Chapel 500 kV (5053) or new Brighton-High Ridge 500 kV.	4.13	PEPCO	UC	12/31/2030
b3800.34	Rebuild 5012 (existing Peach Bottom-Conastone) (new Graceton-Conastone) 500 kV line on single circuit structures within existing ROW and cut into North Delta 500 kV and Gracetone 500 kV stations.	70	BGE	UC	12/31/2030
b3800.35	Rebuild 5012 (existing Peach Bottom-Conastone) (new North Delta-Graceton PECO) 500 kV line on single circuit structures within existing ROW and cut into North Delta 500 kV and Gracetone 500 kV stations.	29.86	PECO	EP	12/1/2030
b3800.36	Rebuild 5012 (existing Peach Bottom-Conastone) (new North Delta-Graceton BGE) 500 kV line on single circuit structures within existing ROW and cut into North Delta 500 kV and Gracetone 500 kV stations.	10.44	BGE	UC	12/31/2030
b3800.37	Replace terminal equipment limitations at Conastone 500 kV - on the (existing Peach Bottom-Conastone) or (new Graceton-Conastone) 500 kV line.	4.93	BGE	UC	12/31/2030
b3800.40	Conastone-Brighton 500 kV (5011 circuit) - Replace terminal equipment limitations at Brighton 500 kV.	4.13	PEPCO	UC	12/31/2030
b3800.41	Conastone-Brighton 500 kV (5011 circuit) - Replace terminal equipment limitations at Conastone 500 kV.	7.16	BGE	UC	12/31/2030

b3800.42	Peach Bottom North bus upgrade - Replace 11 – Instances of strain bus conductor used for breaker drops or CT drops, 7 – 500 kV disconnect switches, 7 – Free Standing CTs, 1 – 500 kV breaker, 2 – Breaker relays or meters.	2.7	PECO	EP	12/1/2030
b3800.44	North Delta termination for the North Delta-High Ridge 500 line (PECO work).	3.4	PECO	EP	12/1/2030
b3800.45	North Delta 500 kV termination for the Rock Springs 500 kV line (5034/5014 line) (PECO work).	0.8	PECO	EP	12/1/2030
b3800.46	North Delta 500 kV termination for the new Peach Bottom-North Delta 500 kV line (PECO work).	2.6	PECO	EP	12/1/2030
b3800.47	Build new Peach Bottom South-North Delta 500 kV line – cut in to Peach Bottom tie No. 1 and extending line to North Delta (~1.25 miles new ROW).	5.5	PECO	EP	12/1/2030
b3800.48	North Delta termination for the North Delta-High Ridge 500 line (Transource work).	0.96	Transource	EP	12/31/2027
b3800.49	North Delta 500 kV termination for the Calpine generator (Calpine/Transource work).	4.05	Transource	EP	12/1/2030
b3800.50	North Delta 500 kV termination for the Rock Springs 500 kV line (5034/5014 line) (Transource work).	0.49	Transource	EP	12/31/2027
b3800.51	North Delta 500 kV termination for the new Peach Bottom-North Delta 500 kV line (Transource work).	0.29	Transource	EP	12/31/2027
b3800.52	Reconfigure Peach Bottom North and South yards to allow for termination of 500 kV lines from Peach Bottom to North Delta. North Delta 500 kV termination for the new Peach Bottom-North Delta 500 kV line.	7.86	PECO	EP	12/1/2030

Cost Allocation

Based on PJM's assessment of the contribution to the benefits expected to be derived from the facilities, the zonal percentage cost allocation for the period of 6/2/2025 until 12/31/2025 is in the following table. The cost allocation for this period will be updated at the end of 2025 to reflect the PJM annual cost allocation update and any changes to the projected in service date of required transmission upgrades listed in this report. Thereafter, the RMR cost allocation for the 2026 calendar year and beyond will be updated and posted annually before the start of the calendar year.

Full Name	Short Name	Allocation
Atlantic Electric	AEC	0.97%
American Electric Power	AEP	6.58%
Allegheny Power	APS	2.65%
American Transmission Systems, Inc.	ATSI	3.69%

Baltimore Gas & Electric	BGE	11.79%
Commonwealth Edison	ComEd	6.36%
Dayton Power & Light	Dayton	0.99%
Duke Energy Ohio and Duke Energy Kentucky	DEOK	1.53%
Dominion	Dominion	28.39%
Delmarva Power & Light Company	DPL	3.37%
Duquesne Light Company	DL	0.79%
East Kentucky Power Cooperative	EKPC	1.10%
Jersey Central Power and Light	JCPL	2.27%
Metropolitan Edison Company	ME	0.90%
Ohio Valley Electric Corporation	OVEC	0.03%
PECO Energy Company	PECO	3.54%
Pennsylvania Electric Company	PENELEC	0.95%
Potomac Electric Power Company	PEPCO	14.60%
PPL Electric Utilities	PPL	2.20%
Public Service Electric & Gas Company	PSEG	6.77%
Rockland Electric Company	RE	0.28%
Neptune Regional Transmission System, LLC.	NEPTUNE	0.25%