

Burtonsville Series Reactors Project

General Information

Proposing entity name	PEPCO
Does the entity who is submitting this proposal intend to be the Designated Entity for this proposed project?	Yes
Company proposal ID	
PJM Proposal ID	951
Project title	Burtonsville Series Reactors Project
Project description	PJM identified overdutied breakers at the BGE's High Ridge 230 kV Substation during the 2026 Open Window Studies. The solution is to install series reactors on circuits 2314 and 2334 at the Burtonsville terminal.
Email	Proprietary
Project in-service date	06/2031
Tie-line impact	Yes
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	Proprietary

Project Components

1. Burtonsville Series Reactors - PEPCO Substation
2. Burtonsville Series Reactors - High Ridge 230kV relay upgrade
3. Burtonsville Series Reactors - Sandy Spring 230kV relay upgrade

Substation Upgrade Component

Component title	Burtonsville Series Reactors - PEPCO Substation
Project description	Install series reactors and related equipment on circuits 2314 and 2334 at the Burtonsville terminal
Substation name	Burtonsville 230kV Substation
Substation zone	PEPCO
Substation upgrade scope	1) Install series reactors on circuits 2314 and 2334 at the Burtonsville terminal. 2) the installation of floating dead-end assemblies on Circuits 2314 and 2334 within an existing span of a double-circuit 230 kV transmission line between Burtonsville Substation and Structure No. 68-E2. 3) upgrade the existing relays to the new SEL-411L relays for protection of Circuits 2313 and 2334 at Burtonsville terminal to enable the 3-terminal line current differential schemes (87L).
Transformer Information	
None	
New equipment description	Series reactors on Burtonsville - Sandy Spring 230kv circuits
Substation assumptions	Extend the fence of the substation to cover the reactors.
Real-estate description	The substation fence will be extended by 180-by-60-foot to cover the reactors.
Construction responsibility	PROPOSER
Benefits/Comments	Proprietary
Component Cost Details - In Current Year \$	
Engineering & design	Proprietary
Permitting / routing / siting	Proprietary
ROW / land acquisition	Proprietary
Materials & equipment	Proprietary
Construction & commissioning	Proprietary
Construction management	Proprietary
Overheads & miscellaneous costs	Proprietary

Contingency	Proprietary
Total component cost	\$11,556,652.00
Component cost (in-service year)	\$12,380,050.00
Substation Upgrade Component	
Component title	Burtonsville Series Reactors - High Ridge 230kV relay upgrade
Project description	Upgrade the existing relays to the new SEL-411L relays
Substation name	High Ridge 230kV
Substation zone	BGE
Substation upgrade scope	Upgrade the existing relays to the new SEL-411L relays for protection of Circuits 2313 and 2334 at High Ridge 230kV substation to enable the 3-terminal line current differential schemes (87L).
Transformer Information	
None	
New equipment description	N/A
Substation assumptions	N/A
Real-estate description	
Construction responsibility	BGE
Benefits/Comments	
Component Cost Details - In Current Year \$	
Engineering & design	Proprietary
Permitting / routing / siting	Proprietary
ROW / land acquisition	Proprietary
Materials & equipment	Proprietary

Construction & commissioning	Proprietary
Construction management	Proprietary
Overheads & miscellaneous costs	Proprietary
Contingency	Proprietary
Total component cost	\$1,057,106.00
Component cost (in-service year)	\$1,169,539.00
Substation Upgrade Component	
Component title	Burtonsville Series Reactors - Sandy Spring 230kV relay upgrade
Project description	Upgrade the existing relays to the new SEL-411L relays
Substation name	Sandy Spring 230kV
Substation zone	BGE
Substation upgrade scope	Upgrade the existing relays to the new SEL-411L relays for protection of Circuits 2313 and 2334 at Sandy Spring 230kV substation to enable the 3-terminal line current differential schemes (87L).
Transformer Information	
None	
New equipment description	N/A
Substation assumptions	N/A
Real-estate description	
Construction responsibility	BGE
Benefits/Comments	
Component Cost Details - In Current Year \$	
Engineering & design	Proprietary

Permitting / routing / siting	Proprietary
ROW / land acquisition	Proprietary
Materials & equipment	Proprietary
Construction & commissioning	Proprietary
Construction management	Proprietary
Overheads & miscellaneous costs	Proprietary
Contingency	Proprietary
Total component cost	\$1,057,106.00
Component cost (in-service year)	\$1,169,539.00

Congestion Drivers

None

Existing Flowgates

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2026W1-SC-38	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-39	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-40	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-41	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-42	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-43	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-44	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-45	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-46	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-47	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-48	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included

FG #	Fr Bus No.	From Bus Name	To Bus No.	To Bus Name	CKT	Voltage	TO Zone	Analysis type	Status
2026W1-SC-49	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-50	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-51	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-52	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-53	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-54	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included
2026W1-SC-55	220941	H.RDGE 230.kV	220941	H.RDGE 230.kV	N/A	N/A	232	Short Circuit	Included

New Flowgates

None

Financial Information

Capital spend start date 01/2027

Construction start date 06/2029

Project Duration (In Months) 53

Additional Comments

None