BGE local Mitigation Alternative

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	470
Project title	BGE local Mitigation Alternative
Project description	Graceton 230 kV High-Impedance Transformer Replacement. Howard to Pumphrey 230 kV Transmission Line Rebuild.
Email	proprietary Information
Project in-service date	06/2031
Tie-line impact	No
Interregional project	No
Is the proposer offering a binding cap on capital costs?	No
Additional benefits	proprietary Information

Project Components

1. BGE local Mitigation Alternative-Howard to Pumphrey 230 kV Transmission Line Rebuild.
2. BGE local Mitigation Alternative-Graceton 230 kV High-Impedance Transformer Replacement

Transmission Line Upgrade Component

Component title	BGE local Mitigation Alternative-Howard to Pumphrey 230 kV Transmission Line Rebuild.

Project description	Howard to Pumphrey 230 kV Transmission Line Rebuild.
Impacted transmission line	2332-B
Point A	Howard Substation
Point B	Pumphrey Substation
Point C	
Terrain description	The Project terrain is predominantly agricultural and suburban in Howard County, MD and Baltimore County, MD. The proposed upgrade will rebuild the existing transmission line utilizing steel pole construction within existing fee owned right-of-way and supplement existing rights. No additional routes were evaluated as the rebuild is contained to the existing centerline.
Existing Line Physical Characteristics	
Operating voltage	230
Conductor size and type	795kcm 30/19 ACSR Mallard
Hardware plan description	Retire existing single circuit line, install new line with all new hardware.
Tower line characteristics	The line consists of 47 single circuit lattice towers
Proposed Line Characteristics	

	Designed	Operating
Voltage (kV)	230.000000	230.000000
	Normal ratings	Emergency ratings
Summer (MVA)	1331.000000	1594.000000
Winter (MVA)	1534.000000	1795.000000

Conductor size and type	2-bundle 1590kcm 54/19 ACSR “Falcon”
Shield wire size and type	OPGW
Rebuild line length	8.7 miles

Rebuild portion description	Replace/Rebuilt existing lattice towers as a new pole line.
Right of way	This project will be constructed in the existing ROW. No ROW expansion or acquisition is required.
Construction responsibility	proprietary Information
Benefits/Comments	proprietary Information
Component Cost Details - In Current Year $	
Engineering & design	proprietary Information
Permitting / routing / siting	proprietary Information
ROW / land acquisition	proprietary Information
Materials & equipment	proprietary Information
Construction & commissioning	proprietary Information
Construction management	proprietary Information
Overheads & miscellaneous costs	proprietary Information
Contingency	proprietary Information
Total component cost	$58,946,005.24
Component cost (in-service year)	$66,830,921.00

Substation Upgrade Component

Component title	BGE local Mitigation Alternative-Graceton 230 kV High-Impedance Transformer Replacement
Project description	Graceton 230 kV High-Impedance Transformer Replacement.
Substation name	Graceton substation
Substation zone	232
Substation upgrade scope	Replace existing Graceton 230-1 high-impedance transformer with standard impedance 230/115 kV transformer.

Transformer Information

	Name	Capacity (MVA)
Transformer	Graceton 230/115 kV transformer 230-1	500

	High Side	Low Side	Tertiary
Voltage (kV)	230	115	

New equipment description	Replace high-impedance 230/115 kV transformer 230-1 at Graceton with standard impedance transformer.
Substation assumptions	Transformer will be physically replaced in kind.
Real-estate description	Substation is owned by BGE and no additional land is needed for this project.
Construction responsibility	proprietary Information
Benefits/Comments	proprietary Information
Component Cost Details - In Current Year $	
Engineering & design	proprietary Information
Permitting / routing / siting	proprietary Information
ROW / land acquisition	proprietary Information
Materials & equipment	proprietary Information
Construction & commissioning	proprietary Information
Construction management	proprietary Information
Overheads & miscellaneous costs	proprietary Information
Contingency	proprietary Information
Total component cost	$13,009,378.58
Component cost (in-service year)	$14,121,411.00

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
2024W1-N11-ST29	220975	WAG-1 HS	221041	WAGNER	1	230/115	232	Summer N-1-1 Thermal	Included
2024W1-N11-ST28	220976	WAG-2 HS	221041	WAGNER	1	230/115	232	Summer N-1-1 Thermal	Included
2024W1-N11-ST27	220979	NEAST317	221112	N.EAST	1	230/115	232	Summer N-1-1 Thermal	Included
2024W1-N11-ST9	220954	HOWARD32	220974	PUMPHRY	1	230	232	Summer N-1-1 Thermal	Included
2024W1-N11-ST12	220954	HOWARD32	220974	PUMPHRY	1	230	232	Summer N-1-1 Thermal	Included
2024W1-N11-ST23	220965	NEAST339	221112	N.EAST	1	230/115	232	Summer N-1-1 Thermal	Included

New Flowgates

None

Financial Information

Capital spend start date	01/2025
Construction start date	01/2026
Project Duration (In Months)	77

Additional Comments

None